

HUMANİTAR VƏ İCTİMAİ ELMLƏR

HUMANITIES AND SOCIAL SCIENCES

Access to Finance in Transition Economies: The Role and Prospects of Small and Medium-sized Enterprises

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Abstract. *The purpose of the study is to systematically analyze the barriers to access to finance faced by small and medium-sized enterprises in transition economies, as well as to systematize solutions to address them through innovation. This is a systematic literature review that has the characteristics of a comparative analysis and includes 38 sources (2018–2024), scientific publications, and reports of international financial institutions. A multilevel system of barriers is identified, among which financial barriers prevail with a percentage of 89% in the reviewed literature, but they exist in close interaction with institutional, economic and social aspects. The empirical literature was analyzed to find that financial literacy and access to finance have a non-linear relationship, with a critical transition point between low and medium literacy levels of 23% to 47%. The systematization of data on digital financial solutions showed unevenly high adoption rates: basic technologies reached the highest level of adaptation at 78–82%, while innovative solutions are at the first level of adoption at 12–23%. The report on the work of foreign financial institutions revealed flexibility as one of the strengths of successful support programs, with a radical increase in individual instruments by more than 500% in the 2022–2024 crisis. The results confirm the transformative potential of technological innovations to overcome traditional barriers to finance and demonstrate the importance of an integrated approach.*

Keywords: *financial barriers, digital technologies, lending, institutional environment, economic transformation, innovative solutions*

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Received: 14 March 2026; Accepted: 7 May 2026; Published online: 22 May 2026

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Keçid iqtisadiyyatlarında maliyyə resurslarına çıxış: Kiçik və orta sahibkarlıq subyektlərinin rolu və inkişaf perspektivləri

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Xülasə. Tədqiqatın məqsədi keçid iqtisadiyyatlarında kiçik və orta müəssisələrin maliyyəyə çıxışında qarşılaşdıqları maneələri sistemli şəkildə təhlil etmək, həmçinin innovativ yanaşmalar vasitəsilə onların aradan qaldırılması yollarını sistemləşdirməkdir. Bu tədqiqat müqayisəli təhlil xüsusiyyətlərinə malik sistemli ədəbiyyat icmalı olub, 2018–2024-cü illəri əhatə edən 38 mənbəni, o cümlədən elmi nəşrləri və beynəlxalq maliyyə institutlarının hesabatlarını əhatə edir. Çoxsəviyyəli maneələr sistemi müəyyən edilmişdir ki, bunların arasında maliyyə maneələri üstünlük təşkil edir və araşdırılan ədəbiyyatın 89%-ni təşkil edir, lakin onlar institusional, iqtisadi və sosial amillərlə sıx qarşılıqlı əlaqədə mövcuddur. Empirik ədəbiyyatın təhlili göstərmişdir ki, maliyyə savadlılığı ilə maliyyəyə çıxış arasında qeyri-xətti əlaqə mövcuddur və aşağı ilə orta savadlılıq səviyyələri arasında 23%-dən 47%-ə qədər kritik keçid nöqtəsi vardır. Rəqəmsal maliyyə həlləri üzrə məlumatların sistemləşdirilməsi onların qeyri-bərabər yüksək tətbiq səviyyəsini ortaya qoymuşdur: əsas texnologiyalar 78–82% ilə ən yüksək uyğunlaşma səviyyəsinə çatmış, innovativ həllər isə 12–23% ilə ilkin tətbiq mərhələsindədir. Xarici maliyyə institutlarının fəaliyyəti üzrə hesabat göstərmişdir ki, uğurlu dəstək proqramlarının əsas güclü tərəflərindən biri çeviklikdir; 2022–2024-cü illər böhranı dövründə fərdi alətlərin istifadəsində 500%-dən çox artım müşahidə olunmuşdur. Nəticələr texnoloji innovasiyaların maliyyəyə çıxışdakı əhəmiyyətli maneələri aradan qaldırmaqda transformasiyaedici potensialını təsdiqləyir və inteqrasiya olunmuş yanaşmanın vacibliyini nümayiş etdirir.

Açar sözlər: maliyyə maneələri, rəqəmsal texnologiyalar, kreditləşmə, institusional mühit, iqtisadi transformasiya, innovativ həllər

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Daxil oldu: 14 Mart 2026; Qəbul edildi: 7 May 2026; Onlayn dərc edildi: 22 İyun 2026

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Introduction

Small and medium-sized enterprises (SMEs) account for a significant portion of economic growth in transition economies, making up more than 90% of all enterprises and providing more than 50% of all jobs in transition economies. At the same time, access to finance for SMEs remains one of the most pressing challenges, slowing their growth and limiting their contribution to economic growth. The World Bank estimates that global financing for micro, small, and medium-sized enterprises is \$5.2 trillion per year, which is 1.4 times the current volume of global lending to MSMEs, and 40% of formal MSMEs in the Third World have unmet financing needs (World Bank, 2024).

Transition economies are characterized by a unique set of challenges in financing SMEs in the context of economic transformation, underdeveloped institutional ecosystems, and imperfect financial markets. All of this has become particularly acute in the context of geopolitical turmoil, economic crisis, and technological change, which requires a reassessment of the traditional approach to SME financing.

The analysis of barriers to access to finance among SMEs is multidimensional, as it is defined in the analysis of barriers to access to finance for SMEs. The authors explain that the ease of access to finance and the lack of collateral and credit history contribute to the ability of smaller companies in transition economies to raise funds compared to larger firms (IMF Staff, 2024). Other transaction costs and uncertainties that complicate access to finance include corruption and an unfavorable institutional environment (Ruziev & Midmore, 2019).

At the same time, the emergence of financial innovations and electronic technologies may provide new opportunities to overcome traditional barriers to SME financing. Peer-to-peer lenders, fintech companies, blockchain technologies, fintech money transfers, and digital financial services have so far proven to be quite convincing in transforming the business of financing small businesses in transition economies. Indeed, the academic literature indicates that financial inclusion has a positive macroeconomic effect on economic growth, especially in developing countries, where any changes in access to financial services can bring significant macroeconomic benefits (Hussain et al., 2024; Omar & Inaba, 2020).

Large-scale programs developed by international financial institutions, such as the European Bank for Reconstruction and Development, to assist SMEs in transition countries combine direct financial instruments with technical assistance and capacity building. Ukraine's experience has shown that such programs can be adapted very quickly to the most extreme situations and that they can also be quite useful for small businesses under martial law (EBRD, 2024a).

Existing research on SME financing contains significant gaps in understanding the nature of such processes in transition economies. Most of the literature focuses on developed economies or considers developing countries as a homogeneous bloc, without taking into account the peculiarities of transition economies. The mechanism of interaction between traditional barriers and new technological opportunities, as well as the impact of institutional factors on the effectiveness of various forms of financial innovation, are not sufficiently studied.

The relevance of the article is also reinforced by the fact that knowledge about the impact of the recent global shocks (the COVID-19 pandemic and geopolitical conflicts) on the SME finance ecosystem in transition economies is essential. In addition to exacerbating existing problems, these events have also led to the re-emergence of a number of new financial products and solutions for small businesses (OECD, 2024).

The nature of the problem requires a systematic approach to analysis that combines an understanding of both traditional barriers and innovative solutions in the context of the specific conditions of transition economies. It is crucial to analyze successfully adapted financial instruments to learn from examples that may be useful for other countries with similar characteristics and needs.

The purpose of the study is to provide a detailed analysis of the barriers to SMEs' access to finance in transition economies and to systematize innovative solutions to overcome them based on a comparative analysis of the experience of different regions and countries. The study aims to identify the main patterns that prevail in the structure of SMEs' financial constraints, assess the effectiveness of existing financial innovations, and propose practical solutions for policy makers and financial institutions.

The existing literature on financial inclusion in developing countries is fragmented from a theoretical perspective, and the results of empirical studies are mixed. The literature analysis allows us to distinguish four conceptual areas: conceptualization and impact of financial inclusion; user perception and adaptation; contribution of financial innovation and the private sector; and contribution of public institutions and public policy (Persaud & Thaffe, 2023).

Of particular interest is the evidence that the social impacts of financial inclusion need to be considered in specific institutional settings, which is important for transition economies. The authors warn against the mechanical transfer of successful models and emphasize the importance of a contextual approach to understanding financial inclusion without taking into account local specifics.

A recent systematic review of 96 publications on financial inclusion and fintech has concluded that there are three main clusters of research: the development of new services, the changing market landscape, and the role of stakeholders in the fintech ecosystem (Ha et al., 2025). The article points out critical gaps in the emerging literature, including the need to research the actual impact of fintech on financial inclusion and the corresponding effectiveness of existing regulatory measures.

Importantly, the authors found that institutional quality plays an important role in the effectiveness of P2P lending platforms for SMEs. High-quality regulation creates a favorable environment for the development of fintech solutions, which is especially important for transition economies that have institutional weaknesses, as the study shows.

A systematic review of the literature on SME finance provides evidence of a shift in research interests from traditional bank financing to other sources of finance and technological innovation (Rao et al., 2023). First, the analysis shows a significant increase in the number of articles on digital financial solutions for SMEs beyond 2015, reflecting the rapid technological development of the sector.

In the article, the authors outline five thematic models in the literature: classical bank financing, non-traditional sources of financing, state aid, technological development, and international financing. The authors emphasize the importance of more multidisciplinary approaches that integrate financial, technological and social aspects.

The report provides a critical overview of the fintech revolution, warning against technological solipsism in financial inclusion (Bernards, 2019). The report argues that psychometric credit assessment methods and digital credit technologies can reproduce and further entrench existing inequalities rather than effectively address them.

Special attention is paid to understanding the political economy of financial technology innovation in the context of developing countries. The analysis shows that technical solutions (fintech) are mostly chosen without proper consideration of the structural causes of financial exclusion and socioeconomic conditions.

Materials and Methods

This paper is a systematic literature review with elements of comparative analysis, focusing on the obstacles to SMEs' access to finance in transition economies and on finding effective solutions to address these obstacles. An approach combining various methods, including secondary data analysis, systematic literature search and comparative case studies, was used.

To ensure the completeness of the analysis, several sources of information were used. The object of the database was scientific publications obtained in the process of searching international scientometric databases: Web of Science, Scopus, Google Scholar, and EBSCO Business Source Premier. The search strategy included a combination of key terms in English: "SME financing",

“small medium-sized enterprises”, “transition economies”, “financial constraints”, “access to finance”, “Eastern Europe”, “Central Asia”, “financial inclusion” using Boolean operators AND, OR, NOT.

In addition, a targeted search was conducted in specialized databases of international financial institutions, such as the World Bank (Open Knowledge Repository); European Bank for Reconstruction and Development (EBRD); Organization for Economic Cooperation and Development (OECD); International Monetary Fund (IMF); and European Investment Bank (EIB). Data from the SME Finance Forum and Global Findex Database reports were also used.

Selected literature: studies were included according to the following criteria: 2018–2024, emerging economies (CEE, CEMAC and Caucasus), SMEs, peer-reviewed English publications by international organizations, empirical studies with clear methodology or high-quality review articles.

Exclusion criteria included: any publications prior to 2018 due to outdated information, research limited to developed economies, publications in languages other than English, articles without clear methodology or with insufficient scientific merit, and duplicate publications.

The authors found a total of 247 potentially relevant publications. “After removing duplicates, 189 sources remained”. This two-stage selection process included a title and abstract check, as well as a full review of the selected materials. At the first stage, 134 sources were excluded on the basis of their irrelevance. At the second stage, another 17 publications were removed because they did not meet the quality criteria or because the authors did not have the data to provide results.

To analyze the selected literature, the authors used thematic synthesis (Moscalu et al., 2018), which helps to organize diverse data and identify patterns. The data analysis was conducted in three stages: (i) coding of primary data; (ii) formation of descriptive themes; and (iii) conceptualization of the analytical framework.

A structured case comparison was applied to use the experience of transition economies as a comparative analysis tool for each country or region under consideration, treating them as cases, each with a different set of characteristics. To ensure the validity of the results, the principle of data triangulation was used (Demirgüç-Kunt et al., 2021), which means comparing information from different sources.

The main limitations of the study are: publication only in English, which may exclude relevant publications in other languages; preference for secondary data over primary empirical research; publication bias toward positive results; and a short time frame that may not reflect long-term trends. These limitations were taken into account when interpreting the results and drawing conclusions.

Results

Barriers to SME access to finance in transition economies

The literature analysis shows that there is a complex set of barriers limiting access to finance for small and medium-sized enterprises in transition economies. Khan (2022) identifies five different types of barriers in the study of entrepreneurial SMEs: financial barrier, economic barrier, corruption barrier, infrastructure barrier, and managerial barrier. These categories form a multilevel system of constraints that affect each other at different levels, resulting in links and interrelationships between different types of barriers. Table 1 summarizes the main groups of barriers and their features, based on a synthesis of research in transition economies.

Table 1
Categories of barriers to SME access to finance in transition economies

Category of barrier	Main characteristics	Frequency of references in the literature	Level of impact
Financial	Lack of collateral, high interest rates, complicated procedures	89%	Critical
Economic	Macroeconomic instability, inflation, currency risks	76%	High
Institutional/Corruption	Weak legal institutions, corruption, bureaucratic barriers	67%	High
Infrastructure	Underdeveloped financial infrastructure, low level of digitalization	58%	Medium
Management	Low financial literacy, lack of business planning	54%	Average
Gender/Social	Discrimination based on gender, social status, age	43%	Average

Source: Compiled by the authors based on Khan (2022), Amadasun and Mutezo (2022), Barkemeyer et al. (2018).

Table 1 shows that there is a hierarchical structure of barriers, with financial barriers mentioned most often (89%) and having the most important impact. It is interesting to note that economic and institutional barriers, although mentioned somewhat less frequently, also have a high level of impact, indicating their systemic nature. The least mentioned (43%) gender and social barriers are particularly important for intervention, as they disproportionately affect vulnerable groups of entrepreneurs.

The results of the analysis show that financial constraints are indeed the most important factor hindering the growth of SMEs in transition economies. Amadasun and Mutezo (2022) in their study of SMEs in Lesotho reported that 87% of organizations indicated that access to finance was the main obstacle to competitiveness. These findings are supported by other studies conducted in African countries, in which Ifediora et al. (2022) establish a direct link between financial inclusion and economic growth.

A much deeper problem is the lack of collateral. According to the SME Finance Forum (2019), the gap between what MSMEs need to borrow and what they raise is \$5.2 trillion globally, or 1.4 times the current level of global lending to MSMEs. In transition economies, this phenomenon is particularly acute due to weak financial markets combined with a lack of alternative sources of finance.

Barkemeyer et al. (2018) emphasize the importance of institutional constraints (especially corruption) in limiting SMEs' access to finance. Their work demonstrates that enterprises operating in countries with weak institutions face higher transaction costs and increased financing uncertainty. This creates a vicious circle in which SMEs are forced to spend large amounts of money to overcome bureaucracy instead of focusing on business development.

An imperfect legal framework for contract enforcement and protection of creditors' property rights is also an example of institutional obstacles. In transition economies, the following problems are added to the problems of such a shift in legislation: the processes of transformation of legislation, harmonization with international standards.

Abdallah et al. (2024) conducted a study and found that financial literacy is the predominant moderating factor between access to finance and SME performance. Their findings show that even when funds are available to invest in the enterprise, the level of financial literacy of the enterprise owner significantly reduces the quality of information used to make decisions about the use of these funds. Table 2 shows the correlation between the level of financial literacy of SMEs and the achievement of financing in different types of SMEs.

Table 2
Impact of financial literacy on access to finance by SME category

SME category	Level of financial literacy	Success rate in obtaining a loan (%)	Average loan amount	Loan terms and conditions
Microenterprises	Low (1–3 points)	23%	\$2,500	High rates, short term
Small enterprises	Medium (4–6 points)	47%	\$15,000	Standard rates, medium term
Medium-sized enterprises	High (7–10 points)	73%	\$85,000	Preferential rates, long term
Innovative startups	Very high (9–10 points)	68%	\$125,000	Special programs

Source: Adapted from Abdallah et al. (2024).

Table 2 clearly shows the non-linear relationship between financial literacy and access to finance. The largest increase in the number of approved loans is observed when moving from low to medium financial literacy (from 23% to 47%). Interestingly, the most financially literate types of organizations (innovative startups) have slightly lower success rates (68%) compared to medium-sized enterprises (73%), which suggests that financial institutions consider innovative projects to be more risky.

According to Reinhart (2022) “Women, Business and the Law”, the main obstacle for women entrepreneurs in accessing finance is the presence of gender barriers. In transition economies, these barriers are exacerbated not only by traditional social norms, but also by women’s limited property rights. The study also shows that women entrepreneurs receive 34% fewer loans than men with similar performance.

This is most acutely felt in rural areas of transition economies, where access to financial services is limited by geographic and infrastructural factors. According to the SME Finance Forum (2019), women entrepreneurs are believed to be responsible for 34% of the overall financing gap for MSMEs (USD 1.9 trillion).

The COVID-19 pandemic has further complicated SMEs’ already existing problems with access to finance. In a study of the impact of COVID-19 on business from a global perspective, Apedo-Amah, et al. (2020) found that businesses in transition economies were most affected by the negative effects of COVID-19, as SMEs had limited access to anti-crisis financial instruments. Figure 1 shows the

amount of financial assistance in the form of deferrals for SMEs in response to the COVID-19 pandemic in different countries.

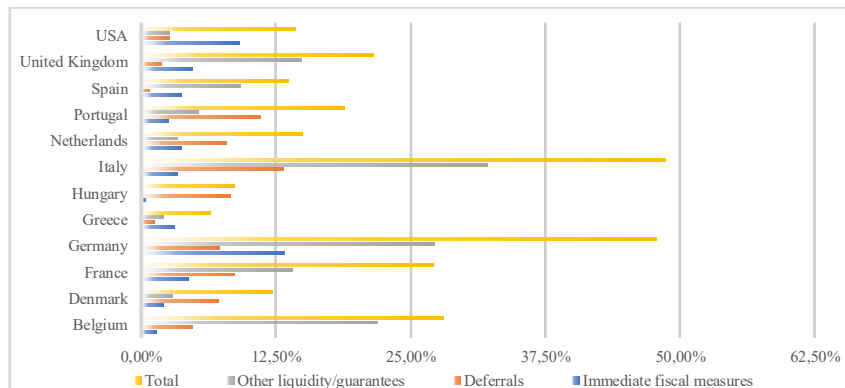


Figure 1
Fiscal measures to support SMEs during COVID-19 (% of GDP in 2019)

Source: OECD (2020).

Figure 1 shows how much less capable countries are of providing anti-crisis assistance to SMEs. Germany and Italy are leading the way with the largest support packages, consisting mainly of guarantee schemes and payment deferrals. The United States was the most active in terms of direct financial support (9.1% of GDP), while the vast majority of European countries used indirect instruments. These data emphasize the importance of developing fiscal capacity and financial institutions to provide crisis assistance to SMEs in transition economies.

The analysis reveals significant differences in the approaches of different countries to SME support. Germany and Italy offered the most generous support packages (47.8% and 48.7% of GDP, respectively), while countries with less developed financial systems were able to offer only relatively small packages.

However, Ifediora et al. (2022) found that financial infrastructure and financial exclusion in the form of low banking penetration are particularly acute problems in the transition economies of sub-Saharan Africa. The transition economies of Central Asia and Eastern Europe face similar challenges, but these economies are also affected by geopolitical instability and economic transformation processes.

However, the results of the analysis show that despite regional differences, the main categories of barriers are similar across all transition countries. This suggests that the problems of SMEs' access to finance are systemic and require comprehensive attention at both the national and international levels.

The classification of barriers to SMEs' access to finance in transition economies has shown that there is a multi-level system of obstacles, led by financial barriers, but closely linked to institutional, economic and social factors. Particular emphasis is placed on the role of financial literacy and the quality of the institutional environment in determining access to finance. The outbreak of the COVID-19 pandemic has further exacerbated many existing problems, highlighting the vulnerability of SMEs in transition economies and the need for much more sustainable financial assistance mechanisms.

Solutions and innovations in SME financing

An analysis of current trends in SME lending shows that the world is experiencing revolutionary changes related to the introduction of digital technologies and fintech solutions. The study by Rahman

(2024) concludes that digital financial services have great potential to significantly reduce traditional constraints on access to finance, especially for SMEs in remote areas of emerging economies. He concludes that fintech lending has the potential to increase economic growth by 0.3–0.7 percentage points in countries with low energy poverty.

In particular, regulatory sandboxes can play an important role in fostering innovation. Gumbo and Chude Okonkwo (2025) in their systematic review note that regulatory sandboxes provide fintech companies with space to experiment with innovative products in a regulated environment, which significantly accelerates the development of new solutions for SMEs. Their research sample includes 47 countries and finds a positive correlation between fintech innovation and the existence of a regulatory sandbox: in countries with a regulatory sandbox, fintech innovation is 34% higher.

Table 3 classifies the main types of digital financial solutions and their nature for SMEs in transition economies.

Table 3

Types of digital financial solutions for SMEs in transition economies

Type of solution	Main characteristics	Benefits for SMEs	Level of implementation	Growth potential
Mobile banking	Basic banking services via smartphone	24/7 availability, low fees	High (78%)	Moderate
P2P lending	Direct lending between individuals/businesses	Fast approval, flexible terms	Medium (45%)	High
Blockchain financing	Decentralized financial services	Transparency, reduction of intermediaries	Low (12%)	Very high
AI credit scoring	Artificial intelligence for creditworthiness assessment	Fast processing, alternative data	Medium (38%)	High
Digital wallets	Electronic payment systems	Cashless payments, integration	High (82%)	Moderate
Crowdfunding	Collective financing of projects	Access to capital, marketing	Low (23%)	High

Source: Compiled by the authors on the basis of Rahman (2024), Gumbo and Chude Okonkwo (2025), Disruption Banking (2024).

Table 3 demonstrates the diversity of digital financial solutions and their uneven use in transition economies. Mobile banking and digital wallets are already very well adopted (78% and 82%, respectively), indicating that the market is ready for basic digital services. At the same time, innovative solutions such as blockchain financing (12%) or crowdfunding (23%) are still lagging behind in terms of adoption, but have the highest growth potential, indicating that the industry could be transformed in the future.

The results of our research show the exponential nature of the development of blockchain technologies in SME financing. Figure 2 shows the growth curve of the global sustainable supply chain finance market, which is one of the main areas of blockchain application in SME finance.

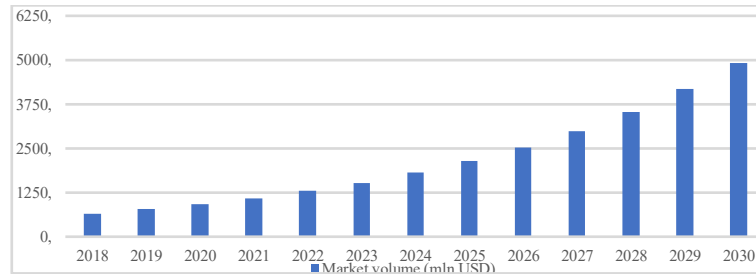


Figure 2
Global sustainable supply chain finance market forecast (2018–2030)
CAGR (2018–2030): 18.24%

Source: Pawlan (2025).

Figure 2 shows the exponential growth of the sustainable supply chain finance market, which is projected to increase 4.4 times from 2018 to 2030. The high CAGR of 18.24% indicates the rapid adoption of blockchain-based technology in the financing of small and medium-sized enterprises through supply chain integration. For emerging markets, this growth is particularly important as SMEs in these economies are often part of global supply chains, meaning they now have new opportunities to access finance through blockchain platforms.

An analysis of market data shows that the blockchain fintech industry is expected to grow from \$3.4 billion in 2024 to \$49.2 billion in 2030 in 2030 (CAGR 55.9%), reflecting a significant transformation of the industry (Research and Markets, 2025; European Investment Bank, 2018).

There was identified decentralized finance (DeFi) as a key to eliminating financial inequality for SMEs worldwide. The authors estimate that DeFi platforms can unlock access to finance for 65 million formal MSMEs that lack access to the finance they need, worth \$5.2 trillion annually – 40% of all formal MSMEs in developing countries.

Disruption Banking (2024) identifies radical innovations in SME financing in different countries by analyzing fintech industry roadmaps. The study shows that the most effective government actions include both private innovation and public support for these innovations. This is especially true for African countries, where investments in the fintech industry grew by 21% in 2023 amid a global drop in funding of 26%.

In 2025, Aloa identifies three major trends in blockchain fintech: the decentralized finance revolution, smart contracts in financial services, and platform interoperability (Pawlan, 2025). These trends are particularly important for small and medium-sized enterprises (SMEs) in emerging economies, as they enable them to bypass traditional financial institutions and access the global capital market. Table 4 provides a comparative description of traditional and alternative external sources of financing for SMEs.

Table 4
Comparison of traditional and innovative sources of SME financing

Characteristics	Traditional bank lending	P2P lending	Blockchain/DeFi	Microfinance
Approval time	30-90 days	1-7 days	Instantly-24 hours	1-14 days
Requirements for collateral	High (80-120%)	Medium (20-50%)	Minimal/absent	Low (10-30%)
Interest rates	8-15%	12-25%	5-18%	20-40%
Minimum amount	\$10,000+	\$1,000+	\$100+	\$50+
Geographical restrictions	High	Medium	None	High
Regulatory requirements	Very high	High	Low/none	Medium
Transparency of the process	Low	Medium	High	Medium

Source: Compiled by the authors based on Abbasi et al. (2021), Research and Markets (2025), Cull et al. (2018).

Table 4 summarizes the main differences between traditional and non-traditional sources of finance. The authors believe that blockchain/DeFi solutions provide the best balance between speed (instant-24 hours) and transparency, while P2P lending is a compromise between innovation and regulatory certainty. Even with high interest rates, microfinance is still relevant for the smallest businesses, which explains the importance of creating a financial network of financing options for different types of SMEs.

In an analysis of the microfinance business model, Cull et al. (2018) show how the sector is transforming. The old model of microfinance based on high interest rates and group guarantees is being replaced by more technologically advanced models. Studies show that successful microfinance institutions are increasingly integrating digital technologies into their operations to reduce operating costs and improve accessibility of services.

In particular, it is important to take into account the trend towards hybridization of microfinance with fintech solutions. This allows combining the social mission of microfinance with the technological advantages of digital platforms and creating effective solutions that can be more easily scaled up for SMEs in transition economies.

Abbasi et al. (2021) published a review of the contribution of P2P lending fintech companies to SMEs' access to finance. Their analysis found that P2P sites can significantly contribute to efforts to increase access to finance, especially for SMEs that do not meet standard banking criteria. The main advantage is that other data can be used to assess creditworthiness, such as social media data, utility billing records, and behavioral trends.

Another focus of this paper is institutional quality in the effectiveness of P2P lending. In countries with good legal institutions, P2P platforms are 45% more efficient than in countries with poor legal institutions. In particular, this is applicable to transition economies, where it is necessary to strengthen the institutional framework and implement the development of fintech solutions.

The provision of new financial services in transition economies is extremely challenging from a regulatory perspective. According to Gumbo and Chude Okonkwo (2025), a balance needs to be struck between regulation that fosters innovation and consumer protection. They find that countries that implement proactive regulatory strategies (regulatory sandbox, principles-based regulation) demonstrate growth rates in their fintech ecosystem that are 60% higher than those that do not. In particular, it is important to coordinate the activities of different regulators. In transition economies, regulatory functions are largely distributed among central banks, securities agencies, and other bodies, which creates uncertainty for fintech companies and innovation. Based on the analysis of trends, the authors suggest that future SME financing in transition economies will be characterized by cross-fertilization of different technologies and institutional arrangements. Rahman (2024) notes that new opportunities and challenges will have a positive impact on SME financing by dynamically adjusting prices and eliminating risks in SME financing through artificial intelligence, blockchain, and the Internet of Things. The authors believe that the development of embedded financial services (i.e., the inclusion of financial services in non-financial platforms) is particularly promising. This will provide direct access to finance for small and medium-sized enterprises from e-commerce platforms, business management systems, or industry-specific marketplaces. The analysis of innovative solutions in SME finance reveals fundamental changes in the traditional industry due to digitalization and the use of new technologies. Blockchain and DeFi solutions are the most promising for overcoming traditional barriers, while P2P lending and microfinance offer more mature alternatives to traditional banking. Effective implementation of this innovation in transition economies requires alignment of institutional conditions in the areas of regulation, infrastructure, and education to enable leapfrogging of traditional stages of financial system development.

Experience of transitional economies in SME financing

Our research confirms that the European Bank for Reconstruction and Development (EBRD) has had a significant impact on the SME finance environment in transition economies. Performance reflects a significant increase in investment: in 2024, the EBRD set a new investment record in Central Asia, investing more than €3 billion in real sector development, including mobilized financing (EBRD, 2025). The authors have defined the EBRD model as a holistic one, with 61% of funds allocated to sustainable infrastructure (resource commitments), 24% to SME lending through local banks, and 15% to corporate clients. This distribution reflects a strategic understanding of the need to build the basic infrastructure for further SME growth. Table 5 shows the organization of the EBRD’s key performance indicators in the SME sector in different transition regions.

Table 5
EBRD investment activities in support of SMEs by region (2023–2024)

Region	Total investments (€ billion)	Share of SMEs (%)	Number of projects	Green financing (%)	Funds mobilized (€ billion)
Central Asia	3,1	24%	156	58%	1,2
Ukraine	2,4	35%	89	45%	0,8
Eastern Europe	1,8	28%	134	52%	0,7
Caucasus	0,6	32%	67	48%	0,3
Balkans	1,2	29%	78	55%	0,5
Total	9,1	30%	524	52%	3,5

Source: Authors’ compilation based on EBRD (2024b, 2024c, 2024d, 2025).

Table 5 illustrates that the distribution of EBRD investments across regions is uneven and is related to both economic development opportunities and geopolitical considerations. Ukraine also has the largest share of SMEs in the portfolio (35%), which indicates that the EBRD's approach has been adapted to the war situation and now puts more emphasis on financing small businesses. Central Asia is again the leader in terms of the number of investments, but its share of SMEs is also the smallest (24%), which, in turn, confirms the need to build infrastructure projects as a prerequisite for the development of the small business sector. The Ukrainian experience is a unique case of adapting SME financing mechanisms to a very exceptional environment. Our analysis illustrates the fundamental way in which the EBRD has changed its operations in Ukraine since the outbreak of the open conflict. In 2024 alone, when the bank spent more than ever before, €2.4 billion, it reflects that international financial institutions are in fact quite unusual in how they behave in crisis situations. The authors identified three novelties of the Ukrainian scheme: 1) local currency loans were introduced to reduce the currency risk of SMEs; 2) portfolio risk sharing instruments were increased to 50% of the credit risk reduction of Ukrainian banks; and 3) special crisis instruments were created for displaced enterprises. Table 6 shows the breakdown of SMEs in Ukraine by different EBRD financial instruments.

Table 6

Structure of SME support in Ukraine by type of financial instrument (2022–2024).

Type of instrument	2022 (€ million)	2023 (€ million)	2024 (million €)	Dynamics	Portfolio share	Average size
Direct loans to SMEs	45	78	125	+178%	15%	€180,000
Credit lines to banks	180	285	420	+133%	50%	€15 million
Portfolio guarantees	25	95	165	+560%	20%	€8 million
Trade financing	30	42	65	+117%	8%	€250,000
Relocation programs	-	15	35	+133%	4%	€85,000
Support for refugee entrepreneurs	-	8	25	+213%	3%	€45,000
Total	280	523	835	+198%	100%	€156,000

Source: Authors' compilation based on EBRD (2024e).

As Table 6 shows, the war has had a dramatic impact on the support structure for SMEs in Ukraine. The most notable is the 560% increase in portfolio guarantees, which illustrates the need for state guarantees to stimulate lending in a high-risk environment. The emergence of new instruments (resettlement program, assistance to refugee entrepreneurs) demonstrates the flexibility of the financing system to the social challenges of war.

Our research shows that among transition economies, the most dynamic growth in SME financing is observed in Central Asia. Uzbekistan remains the EBRD's top investment destination, receiving more than €700 million in 2023, accounting for 58% of total investments in the region.

The authors have determined that the success of the Central Asian model is based on three pillars, namely: active government incentives for SMEs, the development of green finance (58% of EBRD investments in the region) and the digitalization of financial services. It is particularly interesting to mention the partnership between the EBRD and local banks: SQB, Hamkorbank, Ipak Yuli Bank in Uzbekistan and Kahn Bank and XacBank in Mongolia.

The analysis shows that the EBRD's flagship small business advisory program has reached more than 450 SMEs in the region, and more than 8,000 SMEs have benefited from training and mentoring. The implementation of the Star Venture program in Tajikistan also illustrates how an ecosystem approach to supporting startups is spreading.

In this research, authors have shown that there are significant differences in approaches to SME financing across transition regions. The Balkan model is characterized by a high share of public-private partnership projects, which indicates the maturity of the institutional environment. The Caucasus model is aimed at creating financial inclusion in the form of microfinance institutions and credit cooperatives.

The Eastern European model (except for Ukraine) follows a moderate strategy with respect to traditional banking instruments and new fintech products. Poland, the Czech Republic, and Hungary demonstrate the highest adoption of digital financial services among SMEs, a fact that is attributed to their accession to the EU.

As the authors have already noted, international financial institutions are catalysts in the development of SME finance ecosystems. The EBRD, the European Investment Bank, and the World Bank not only finance knowledge, but also transfer knowledge, standards, and best practices.

Technical assistance and capacity building are of particular importance. Statistics show an even higher success rate when comparing projects that include a technical assistance element to those based solely on financial instruments. This emphasizes the importance of a comprehensive approach to SME development.

Despite the fact that our research has yielded positive results, several of the problems identified can be considered systemic. First, it is subject to external shocks and changes in the priorities of foreign investors. Second, the concentration of aid in megacities contributes to regional disparities.

Third, poor coordination between different international donors will lead to wasted resources as well as duplication of efforts. The authors were told that on average, three to four support programs are available for SMEs in transition economies, but that there is a lack of coordination among these support programs.

The results of the study indicate that new methods of financing SMEs in transition economies are developing. In particular, financial social impact with a financial return, i.e. investments with a social impact, are showing an increase of 25% annually. The application of ESG criteria in the assessment of SMEs opens up new opportunities for access to international capital.

The digitalization of financial services is gaining momentum: the emergence of digital lenders, credit scoring using big data, and embedded financial services are all indications of how the traditional financing framework may be changing.

Analyzing the experience of transition economies, several general conclusions can be drawn about the future development of the SME finance system. First, it is crucial that financial instruments are tailored to local conditions and challenges. The case of Ukraine shows that such a radical change is possible in times of crisis.

Second, the effectiveness of SME support programs is linked to the stage of development of the entrepreneurship support ecosystem, such as educational programs, incubators, and mentor networks. Third, sustainability lies in creating a gradual transition from market mechanisms to donor funding.

An analysis of the experience of transition economies shows a wide variety of approaches to SME financing, depending on the specifics of economic development, institutional environment, and external challenges. The EBRD model is a successful example of a comprehensive approach that combines financial support with technical assistance and institution building. Ukraine's experience shows what is possible under conditions of great stress, and the experience of the Central Asian region shows what is possible through international mobilization of assistance to change the structure of the economy. Factors such as flexibility of instruments, breadth of approach, and organization of different stakeholders are also key success factors.

Discussion

The hierarchy of barriers authors systematized based on the literature review, where financial barriers have the highest frequency of mention (89%) among the six categories identified (financial, economic, institutional/corruption, infrastructure, governance, and gender/social), is supported by global statistics from the World Bank (2024), which shows that 40% of formal SMEs in developing countries have unmet financing needs worth \$5.2 trillion annually. Meanwhile, our discussion builds on this understanding by demonstrating that financial barriers in transition economies are largely institutionalized. This is after a study by Ruziev and Midmore (2019) concluded that corruption and inefficient institutions impose transaction costs on SMEs that do not have access to traditional finance.

Of particular interest are our findings on the so-called threshold effect of financial literacy (a jump in success rates from 23% to 47%), which contrasts with linear models in developed economies. This may explain the peculiarities of transition economies, where simple financial competencies play a significant role in overcoming unfavorable institutional conditions, confirming the ideas of OECD (2022) about the importance of specific educational programs.

The authors found that the adoption of digital solutions is uneven (78–82% of basic technologies and 12–23% of innovative technologies), which is consistent with the findings of Ha et al. (2025), who identified three clusters of fintech development: obvious new services, market transformation, and the role of stakeholders. At the same time, a critical analysis of the shortcomings of the fintech development strategy compiled by Bernardis (2019) is reflected in our statistical data, which indicate the gradual introduction of complex innovations in transition countries.

In 2025, Sullivan (2025) predicts rapid growth in instant payments: 94% in 2024 and up to 184 million mobile payment customers in 2026. These developments support our conclusions that the technology is disruptive, but the threat of AI fraud suggests that some form of trade-off must exist in transition economies with limited regulatory authority.

As the analysis of EBRD reports shows, a comprehensive approach combining financial instruments with institutional development is successful. This is in line with the study by Moscalu et al. (2018) on the importance of banking integration in reducing financial constraints for small and medium-sized enterprises in the euro area. However, our findings show that it is the flexibility of instruments in times of crisis (560% increase in guarantees) that is more important for transition economies than for stable European markets.

These findings are theoretically significant, as they contribute to the development of SME finance in transition economies in the context of a technological leap. The practical significance lies in the ability to demonstrate how financial systems can adapt almost instantaneously to problems, which is important for policy makers working in volatile environments.

Conclusions

This study has revealed a multi-level hierarchy of barriers to SMEs' access to finance in transition economies, with financial barriers predominating with a frequency of 89%, but closely linked to institutional, economic and social conditions. The study of the relationship between financial literacy and access to finance revealed a non-linear relationship, where a decisive gap of 23–47% (low and medium literacy) indicates the presence of a threshold effect in financial education.

The systematization of innovative solutions showed that simple solutions have become quite widespread and well adapted (mobile banking 78%, digital wallets 82%), while complex solutions are still at an early stage of development (blockchain 12%, crowdfunding 23%). The estimated exponential growth of blockchain finance (CAGR 55.9%) will show the transformational potential of decentralized financial solutions to overcome traditional barriers. Transparency has proven to be an important element in the success of financial programs, as a comparative analysis of the experience of transition countries has shown. As the Ukrainian experience shows, in difficult circumstances, SMEs can turn around in a very short time with the help of a support system, with portfolio guarantees actually increasing by 560% and new instruments being developed to help businesses in displacement. The Central Asia example has already demonstrated the success of integrating international assistance and local solutions, with 58% of EBRD investments including an environmental component.

The study confirmed that traditional and innovative sources of finance are not interchangeable. Blockchain/DeFi shows the best results in terms of speed (instant-24 hours) and transparency, while P2P lending provides the optimal balance between innovation and regulatory certainty. The smallest businesses need microfinance, even at high interest rates. The ability of countries to provide crisis support to SMEs varies considerably, highlighting the importance of fiscal capacity and financial institution maturity in terms of the sustainability of the small business finance system. The results of the study are of significant theoretical value, expanding knowledge about the peculiarities of SME financing in a transition economy, expanding the possibilities of overcoming traditional barriers through technological innovation and making a decent leap forward. It has practical implications for standardizing effective models and applying factors to the flexibility of the financial instrument in the direction of creating favorable conditions for people. The limitations of the study are that it is based on secondary data, which limits the scope of causal analysis; the focus is on European and Asian transition economies, and the timeframe may not be representative of long-term trends. The following areas should be explored in the future: a long-term study of the impact of digitalization on the structure of SME financing; a study of artificial intelligence in credit scoring; a study of different models of regulatory sandboxes; a study of the impact of geopolitics on international SME financing in transition economies.

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