Research on World Agricultural Economy
https://journals.nasspublishing.com/index.php/rwae

ARTICLE

Organizational Dynamics and Financial Sustainability: Evidence from Vietnam's People's Credit Funds

Quang Minh Le [1] ***, Anh Phan*** [2] ***, Dieu Linh Nguyen*** [2] ***, Thi Minh Ngoc Le*** [2] ***, Van Lanh Nguyen*** [3*] ***, Bao Huyen Nguyen*** [4] ***, Tra Thi Huong Le*** [2]

[1] *Postgraduate Department, Thanh Dong University, Hai Duong 171967, Vietnam*
[2] *Banking Research Institute, Banking Academy of Vietnam, Hanoi 100000, Vietnam*
[3] *Faculty of Economics, University of Technology and Management, Hanoi 10000, Vietnam*
[4] *Faculty of Banking, Banking Academy of Vietnam, Hanoi 100000, Vietnam*

ABSTRACT

This study investigates the factors affecting the financial sustainability of People's Credit Funds in Vietnam, which are essential for promoting financial inclusion in rural areas. The research, grounded in organizational management and financial systems theories, uses a mixed-methods approach with a survey of 363 stakeholders across all 63 Vietnamese provinces, conducted from October 2024 to March 2025. Multivariate regression analysis reveals that Organizational Performance, Loan Portfolio Management, Management Quality, Customer Outreach, Organizational Transparency, and Financial Sustainability all have a significant impact on Financial Self-Sufficiency. However, the study found that Organizational Capacity and the Legal and Policy Environment were only marginally significant. Interestingly, many of the significant factors showed negative coefficients, suggesting operational trade-offs specific to the context of Vietnamese People's Credit Funds. For example, stringent risk management or extensive customer outreach may increase costs, temporarily reducing financial self-sufficiency. These findings broaden existing theoretical frameworks by highlighting the complex trade-offs within cooperative credit institutions. The study provides practical recommendations for People's Credit Funds' managers, urging them to balance risk-based

*CORRESPONDING AUTHOR:
Van Lanh Nguyen, Faculty of Economics, University of Technology and Management, Hanoi 10000, Vietnam;
Email: dungnguyenthanhtra79@gmail.com

ARTICLE INFO
Received: 13 July 2025 | Revised: 8 August 2025 | Accepted: 26 August 2025 | Published Online: 21 January 2026
DOI: https://doi.org/10.36956/rwae.v7i1.2455

CITATION
Le, Q.M., Phan, A., Nguyen, D.L., et al., 2026. Organizational Dynamics and Financial Sustainability: Evidence from Vietnam's People's Credit Funds. Research on World Agricultural Economy. 7(1): 435–451. DOI: https://doi.org/10.36956/rwae.v7i1.2455

lending with digital tools to streamline operations and reduce costs. Policymakers are also advised to implement tax incentives to support the digital transformation of People's Credit Funds, aligning with Sustainable Development Goals 1 and 8.

Keywords: People's Credit Funds; Financial Sustainability; Organizational Management; Financial Inclusion; Vietnam; SDGs

1. Introduction

People's Credit Funds (PCFs) in Vietnam play a pivotal role in advancing financial inclusion, particularly in rural and underserved areas, by providing accessible financial services to low-income communities [1]. PCFs are very effective at gathering unused money from the public and putting it to use through loans for both production and consumption. Beyond their financial role, PCFs also help communities by strengthening solidarity, reducing reliance on informal lenders, and boosting economic stability in rural areas. PCFs have undergone major changes, especially since Decision No. 1058/QD-TTg on July 19, 2017. This decision set out a plan to reorganize the national credit system and tackle bad debts. In response, PCFs have reformed their operations to become more effective and financially stable. Across various regions, key financial indicators for PCFs have significantly improved. These include charter capital, funds raised, outstanding loans, liquidity reserves, and membership numbers. Many PCFs have even managed to keep their non-performing loan ratios close to zero. These cooperative credit institutions also contribute significantly to socioeconomic development, aligning with Sustainable Development Goals (SDGs) such as poverty reduction (SDG 1) and economic growth (SDG 8) [2]. Financial sustainability, defined as the ability to cover operational costs and accumulate capital for long-term growth [3], is critical for PCFs to maintain their operations and enhance community trust [4]. However, achieving financial sustainability remains challenging due to economic fluctuations, regulatory constraints, and operational inefficiencies [5].

While prior studies have explored factors influencing the financial sustainability of microfinance institutions globally [6,7], research specific to Vietnam's PCFs is limited. Research in Vietnam's Mekong Delta shows that having enough capital and generating income are good for long-term stability, while too much credit growth and high levels of bad loans hurt it. Other studies highlight that financial literacy, strong governance, and a stable macroeconomy are all crucial for how well institutions perform. Experts like Schaltegger et al. [8] and Kaiser and Lusardi [9] have further developed these ideas, suggesting frameworks that emphasize the importance of financial education, transparent operations, and good governance practices within microfinance institutions. Additionally, empirical work by Pham [10] and Phan et al. [11] reinforces the idea that competent management, strong leadership, and efficient financial handling are essential for institutions to be resilient and develop sustainably. Existing studies focus primarily on traditional factors such as credit growth, loan portfolio quality, and capital adequacy [1,4], but few integrate emerging influences like digital transformation or the role of regulatory frameworks in enhancing financial resilience.

While a good amount of research exists, there are still significant areas that haven't been fully explored. For instance, we don't know enough about how discretionary financial behaviors—things like managing earnings, choosing what financial information to share, and making decisions about dividends—impact long-term sustainability. Furthermore, there's a need for a more integrated analysis of how cash holding policies, capital adequacy, client outreach strategies, and managerial discretion all interact, especially given Vietnam's unique social, economic, and legal environment. Recent changes, including policy reforms, the rise of digital technologies, and external shocks like the COVID-19 pandemic, have added new layers of complexity and strategic opportunities that current research hasn't adequately addressed. Without a comprehensive understanding of these factors, it's hard to truly assess the performance of PCFs using the same standards as commercial banks. This gap

limits our ability to develop practical and regulatory solutions to ensure their financial sustainability.

This study addresses this gap by examining how organizational capacity, management quality, loan portfolio management, customer outreach, transparency, and the legal and policy environment, combined with the adoption of digital technologies, impact the financial sustainability of PCFs in Vietnam. This research investigates how the previously mentioned factors influence financial resilience, drawing on key theories from financial sustainability, microfinance, and banking performance. The study will use strict quantitative methods and a national dataset to build a model that shows the complex relationships between financial, managerial, and institutional elements. The findings are expected to deepen our theoretical understanding of sustainability in the microfinance sector and offer practical guidance for regulators, policymakers, and practitioners. These insights can help strengthen regulations, improve how institutions are governed, and inform strategic management decisions, ensuring that PCFs remain effective and sustainable in a rapidly evolving economic and social landscape.

The study poses the following research questions: (1) How do organizational capacity, management quality, and loan portfolio management affect PCFs' financial sustainability? (2) To what extent do customer outreach, transparency, and the legal environment influence long-term financial stability? (3) How does digital transformation moderate these relationships? To answer these questions, the study employs a quantitative survey approach, collecting 363 responses from PCFs stakeholders across all 63 Vietnamese provinces from October 2024 to March 2025. Multivariate regression analysis is then utilized to test the hypothesized relationships.

This research significantly contributes to the literature by extending organizational management theory and financial systems theory to the specific context of Vietnam's PCFs. It offers a novel framework that, while initially proposing digital transformation as a moderating factor, focuses on understanding the direct impacts and operational trade-offs within cooperative credit institutions. Practically, the findings provide actionable insights for PCF managers, encouraging them to optimize risk-based lending and adopt digital tools, and for policymakers, advising the introduction of tax incentives to support digital transformation, aligning with Sustainable Development Goals (SDG) 1 (no poverty) and SDG 8 (decent work and economic growth)[12]. By addressing these issues, the study bridges local practices with global microfinance research, offering implications for other developing economies.

The structure of this paper is organized as follows. The next section presents a comprehensive review of the existing literature, with particular attention to financial sustainability theory, microfinance mechanisms, and discretionary financial behavior. Following this, the methodology section outlines the research design, data collection procedures, and analytical techniques employed in the study. The results section presents the empirical findings in detail. This is followed by a discussion section that interprets the results in the context of prior research. The final section concludes by summarizing the theoretical contributions, practical implications, and suggestions for future research directions.

2. Literature Review

2.1. Role of People's Credit Funds in Financial Inclusion

According to the Law on Credit Institutions 2024 in Vietnam, PCFs are non-profit credit institutions voluntarily established by businesses, individuals, or households in the form of cooperatives. The core objective of these entities is to support mutual production and business development, and to improve members' living standards. Operating based on cooperation principles, members contribute to and benefit from the financial activities of the fund.

Microfinance Theory centers on the provision of financial services to individuals or groups with low income who are typically excluded from access to formal financial systems[13,14]. It emphasizes the importance of delivering fundamental financial tools, including microcredit, savings facilities, and insurance services[13]. By extending such services, microfinance promotes financial inclusion and supports the economic participation of disadvantaged communities. The ultimate objec-

tive of this approach is to alleviate poverty by offering financial instruments that improve household welfare, enhance entrepreneurial opportunities, and contribute to broader economic stability [14–16]. Within this theoretical framework, microfinance institutions (MFIs) play a critical role as intermediaries that serve low-income clients. These institutions often utilize lending methodologies specifically designed to accommodate the needs of borrowers who lack access to collateral or formal credit histories. Common practices include group-based lending and unsecured credit arrangements [15]. The theory also underscores the significance of improving financial literacy among borrowers, as this fosters better personal financial management and strengthens borrowers' ability to utilize financial resources effectively [13]. Through the provision of accessible financial services and the promotion of financial education, MFIs seek to empower individuals and communities who have traditionally been excluded from the formal financial system [13,15,17,18]. In the Vietnamese context, this theory has particular relevance, as PCFs share similar objectives and functions with MFIs. PCFs operate at the grassroots level and provide financial services to populations that are often underserved by traditional banks. The application of microfinance theory enables a comprehensive understanding of how PCFs contribute to sustainable development and inclusive financial systems. It also provides a theoretical lens through which to analyze the determinants of financial sustainability in PCFs and to assess their role in enhancing the economic resilience of local communities [16,19].

People's Credit Funds (PCFs) in Vietnam, operating as cooperative credit institutions, are vital for promoting financial inclusion by providing accessible financial services to low-income and rural communities [1]. These institutions align with global efforts to achieve financial inclusion, as outlined by the United Nations [2], and contribute to socioeconomic development by supporting small-scale entrepreneurs and households excluded from traditional banking systems [20]. Internationally, similar microfinance institutions, such as Grameen Bank in Bangladesh, have demonstrated success in fostering economic empowerment through community-based lending models [21]. In Vietnam, PCFs operate under the Law on Credit Institutions and the Law on Cooperatives, emphasizing mutual support and collective resource pooling to enhance local economic stability [5].

2.2. Factors Influencing Financial Sustainability

Financial sustainability, defined as the ability of an institution to cover operational costs and maintain capital for long-term growth [3], is critical for PCFs to sustain their role in financial inclusion. Financial sustainability means using resources efficiently, being able to rebuild financial reserves, and maintaining strong financial health over time without burdening future generations.

The Financial Sustainability Theory focuses on an organization's ability to remain financially viable long-term while still fulfilling its mission and operational duties [22]. This involves the careful and strategic management of financial resources to ensure an institution's continuity, especially when facing economic uncertainty, regulatory shifts, or changing policies [15,23]. Key aspects support financial sustainability include Profitability, Liquidity, Capital adequacy, and Risk management [19,22,24]. For microfinance institutions, including PCFs, financial sustainability also means being able to recover costs and continue operations without hindering service delivery to economically vulnerable groups [15,23]. The theory also highlights the importance of diversifying revenue streams, ensuring operational efficiency, making effective use of capital, and being adaptable to external pressures like new laws or macroeconomic changes. These elements are especially vital for non-profit and community-based financial organizations, as their sustainability depends not only on financial performance but also on aligning financial practices with their social missions [15,23]. In Vietnam, this theoretical approach provides a valuable basis for evaluating the long-term viability of PCFs. By applying these principles, researchers and policymakers can identify ways to optimize resource allocation, enhance institutional resilience, and lessen the impact of external disruptions. This framework helps us understand how PCFs can maintain their operational integrity while significantly contributing to the socio-economic advancement of the communities they

serve.

Previous studies have identified several key determinants of financial sustainability in microfinance institutions. Ayayi and Sene[6] highlight that high-quality loan portfolios, effective management, and reasonable interest rates are essential for financial viability. Similarly, Tehulu[7] emphasizes the role of credit growth, capital adequacy, and low bad debt ratios in ensuring sustainability. Rana et al.[25] found that interest rate tools, reserve requirements, open market operations, and credit controls are the most effective instruments for managing Bangladesh's money supply and demand. In the Vietnamese context, Ha[4] finds that deposit growth and income from financial activities positively impact PCFs' financial sustainability, while excessive credit expansion may increase financial risks. Additionally, organizational factors such as management quality, transparency, and operational efficiency have been shown to enhance financial resilience[26,27]. According to Onsongo[28], organizational capacity directly affects financial sustainability. Improving this capacity leads to better financial planning, smarter resource allocation, and more efficient fund mobilization[29]. It also boosts an institution's ability to adapt and innovate, which is crucial for finding new income sources and dealing with financial shortfalls, ultimately improving long-term financial sustainability[30]. Rana et al.[31] assert that to achieve the Sustainable Development Goals (SDGs) in South and Southeast Asia, it's crucial to implement banking reforms tailored to each region. These reforms should aim to bolster financial stability, enhance credit quality, and ensure that banking practices are in line with the 2030 Agenda for Sustainable Development. In microfinance, operational efficiency is often measured by indicators like the operating expense ratio and cost per borrower. Higher operational efficiency generally means greater profitability and less dependence on outside financial support[32]. By keeping administrative and operational costs low and optimizing internal processes, financial institutions can dedicate more resources to expanding services and investing. This significantly contributes to long-term financial sustainability[15,33].

Empirical research shows that factors like loan size, lending activity levels, and effective debt recovery greatly influence the financial health of microfinance institutions[32]. Hartarska[25] found a positive link between strong governance practices and the financial performance of these institutions. Conversely, PCFs that have been placed under special control due to governance failures often suffer from poor administration, increasing non-performing loans, and sometimes even executive fraud[34]. Additionally, adopting sustainable and socially responsible lending practices, such as environmentally focused credit strategies, has been linked to improved institutional stability through better risk management[35]. Globally, studies on microfinance institutions in regions like Sub-Saharan Africa and South Asia underscore the importance of regulatory frameworks and risk management in sustaining operations[36]. For instance, Quayes[37] notes that robust governance and customer outreach strategies are critical for balancing social and financial objectives. However, these studies often focus on traditional factors and overlook emerging influences such as digital transformation, which can enhance operational efficiency and customer access through technology-driven services[38].

Recently, several previous studies have investigated the link between Fintech, digitalization and the performance of microfinance companies. FinTech is significantly transforming microfinance, with Musaigwa and Kalitanyi[39] highlighting the importance of digital leadership for executives amidst organizational changes driven by digital transformation, while still acknowledging the relevance of traditional leadership roles [40]. A key characteristic of FinTech in microfinance is its ability to deliver innovative digital financial services , such as mobile banking, mobile wallets, and online lending platforms , to previously unbanked or underserved populations, making services more convenient, accessible, and affordable[41,42]. Furthermore, FinTech leverages big data and AI to improve credit risk assessment and customer profiling, enabling microfinance institutions to better evaluate borrower creditworthiness, reduce loan defaults, and enhance financial inclusion[43]. The integration of blockchain technology also boosts transparency and security in financial transactions by creating tamper-proof records, thereby reducing fraud[44,45]. A significant advantage of FinTech for microfinance is its

capacity to lower transaction costs and foster sustainable operations through automated loan processing, reduced paperwork, and broader customer reach at lower costs. This efficiency can result in lower interest rates and fees for borrowers, which is vital for the management and sustainability of microfinance operations. It can be considered an innovation related to the environment [46]. FinTech also expands the range of services available to clients, allowing microfinance companies to offer savings accounts, insurance, and other products via digital channels that were previously inaccessible [47]. By using digital tools to analyze client data, microfinance companies can make more informed lending decisions and further reduce default risks, contributing to a more sustainable and responsible microfinance environment crucial for poverty reduction [48]. The integration of innovative technological solutions is essential for sustainable mobile financial services, improving reliability and efficiency while also minimizing environmental impact [49].

Regarding client outreach, expanding a client base does more than just boost revenue through increased lending; it also helps diversify the loan portfolio, which reduces concentrated risk [50]. A larger, more varied group of borrowers, especially those with strong repayment habits like female borrowers, can improve financial performance and institutional resilience. Furthermore, diversifying across different sectors and customer groups lessens exposure to market volatility and the chance of widespread loan defaults. This is crucial for avoiding over-reliance on fast-growing industries that might eventually become unstable or oversaturated [10].

Moreover, transparency in financial and operational matters is essential for maintaining stakeholder trust, ensuring institutional accountability, and attracting long-term funding. Transparent practices, such as publishing audited financial statements and providing clear financial disclosures, allow stakeholders to make informed decisions and effectively monitor an organization's performance [51]. Transparency also helps reduce corruption by making financial transactions and decision-making processes more visible, which discourages fraud and mismanagement [52]. For PCFs, which often face public scrutiny and regulatory oversight, increasing transparency is not just a regulatory requirement but a strategic necessity for achieving sustainable growth and financial resilience.

2.3. Research Gaps and Theoretical Framework

Despite the extensive literature on microfinance sustainability, significant gaps remain in the context of Vietnam's PCFs. First, most studies focus on traditional factors like loan portfolio quality and capital adequacy, with limited attention to the role of digital technologies in enhancing financial sustainability [1,7]. Second, the interplay between internal organizational factors (e.g., management quality, transparency) and external factors (e.g., legal and policy environment) is underexplored in the Vietnamese context. Third, there is a lack of comparative analysis linking Vietnam's PCFs with global microfinance models, limiting the generalizability of findings.

This study addresses these gaps by integrating organizational management theory and financial systems theory to examine the financial sustainability of PCFs. Organizational management theory posits that effective governance, resource allocation, and operational efficiency are critical for organizational success [53]. Financial systems theory emphasizes the role of institutional and regulatory environments in shaping financial stability [12]. This study extends these theories to explore how organizational and regulatory factors affect PCFs' financial sustainability. The proposed framework provides a comprehensive lens to analyze both internal and external drivers of sustainability, offering insights for Vietnam and other developing economies.

3. Research Methodology

3.1. Hypotheses Development

This study investigates the factors influencing the financial sustainability of People's Credit Funds (PCFs) in Vietnam, guided by organizational management theory and financial systems theory. Eight hypotheses are proposed to test the impact of: Organizational Capacity (H1), Organizational Performance (H2), Loan Portfolio Management (H3), Management Quality (H4), Customer

Outreach (H5), Organizational Transparency (H6), Legal and Policy Environment (H7), and Financial Sustainability (H8) on the Financial Self-Sufficiency (FSS) index. These hypotheses evaluate whether internal organizational factors and external regulatory conditions enhance PCFs' ability to cover operational costs and ensure long-term viability [1,3]. The research model and the hypotheses are presented in **Figure 1**.

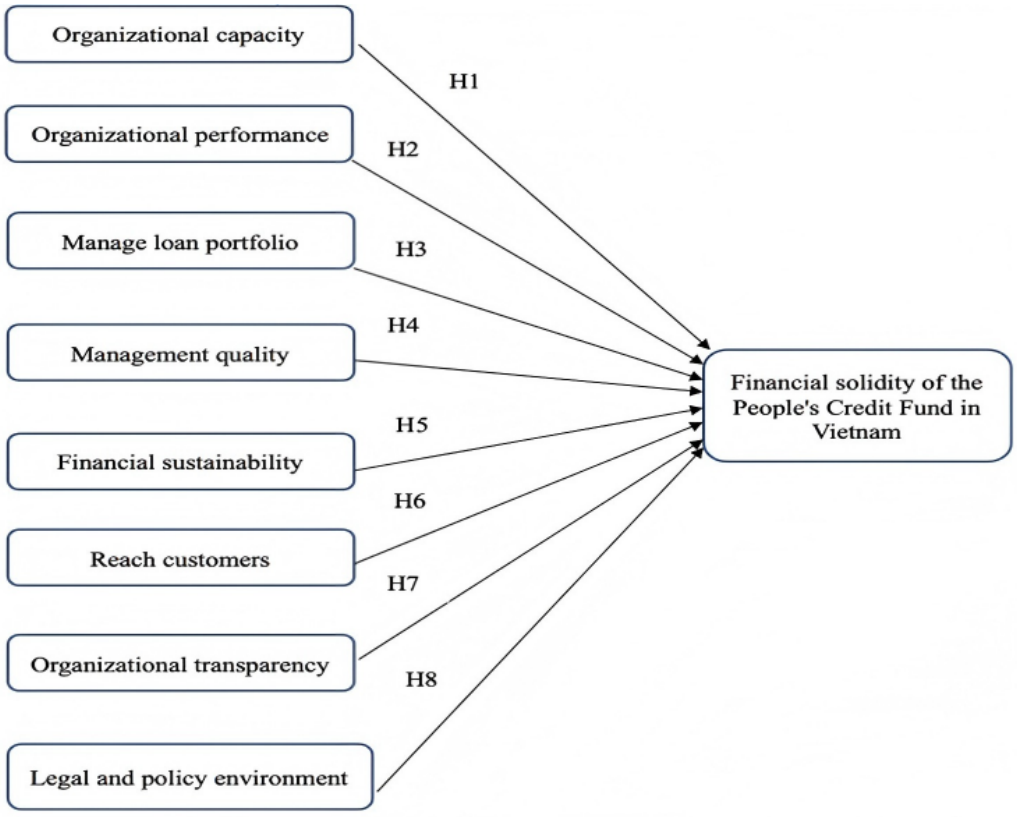

Figure 1. The model research.

3.1.1. Organizational Capacity

Organizational capacity is a multidimensional construct encompassing the resources, capabilities, and operational processes of an institution, all of which influence employee behavior in achieving organizational objectives [54]. It includes key elements such as human resources, financial planning, leadership, infrastructure, and stakeholder engagement [54]. This capacity is directly linked to financial sustainability - defined as an organization's ability to meet its expenditures through internally generated revenues and diversified funding sources [28]. Strengthening organizational capacity enhances financial planning, optimizes resource allocation, and improves fund mobilization efficiency [29]. Additionally, it fosters institutional adaptability and innovation, which are critical for developing alternative revenue streams and responding to financial shortfalls, thereby enhancing long-term financial sustainability [30].

Hypothesis 1. *Organizational capacity positively affects financial self-sufficiency of PCFs.*

3.1.2. Organizational Performance

Organizational performance refers to the ability of an organization to deliver services or outputs using the least possible resources while maintaining quality [55]. In the context of microfinance, it is often measured through indicators such as the operating expense ratio and cost per borrower. Higher operational efficiency is associated with increased profitability and reduced dependence on external financial suppor [32]. By minimizing operating costs and maximizing the effectiveness of internal processes, institutions can allocate more resources to service delivery and investment, contributing to stronger financial sustainability [15,33].

Hypothesis 2. *Organizational Performance positively affects financial self-sufficiency of PCFs.*

3.1.3. Loan Portfolio Management

Effective loan portfolio management is fundamental to the financial sustainability of PCFs. It involves credit risk assessment, monitoring, and collection mechanisms that minimize non-performing loans and enhance asset quality. Research has shown that loan size, lending intensity, and debt collection effectiveness significantly affect the financial viability of microfinance institutions [34]. However, in practice, many PCFs in Vietnam struggle with poor credit appraisal systems and loose loan approval processes, resulting in high default rates and financial distress [56]. Strengthening internal control systems, implementing sound credit policies, and conducting regular internal audits are essential to reducing credit risk and supporting sustainable financial performance [57].

Hypothesis 3. *Loan portfolio management positively affects financial self-sufficiency of PCFs.*

3.1.4. Management Quality

Management quality plays a critical role in the financial sustainability of PCFs. Transparent and accountable governance structures can mitigate operational risks, enhance strategic decision-making, and improve stakeholder confidence. Hartarska [26] highlights that strong governance practices positively influence the financial performance of microfinance institutions. Conversely, PCFs in Vietnam under special control due to governance failures have experienced mismanagement, rising bad debts, and even fraud by executives [56]. Robust governance mechanisms, including ethical leadership, compliance with regulations, and internal accountability systems, are essential to safeguard institutional integrity and financial health. Moreover, the adoption of sustainable credit strategies - such as green lending - has been linked to improved financial stability through effective risk mitigation [35].

Hypothesis 4. *Management quality positively affects financial self-sufficiency of PCFs.*

3.1.5. Financial Sustainability

The safety of the PCFs is assessed through the ability to manage and prevent financial risks. Interest rate risk management is an indispensable factor to protect the safety of the PCFs. In addition to purely economic risks, the PCFs also face operational risks (related to human and technological factors) and political risks due to changes in the Government's attitude or legal adjustments. These indicators not only reflect the level of safety in the PCFs' operations but also show the ability to forecast, prevent and overcome risks. Scholars have emphasized that, in order for the PCFs to achieve a high level of safety, the internal control and risk management system must be strictly applied, and there must be independent supervision from auditing agencies [3].

Hypothesis 5. *Financial sustainability positively affects financial sustainability of PCFs.*

3.1.6. Client Outreach

Client outreach is a key driver of financial sustainability in PCFs. Expanding outreach enhances revenue through increased lending opportunities and contributes to portfolio diversification, thereby reducing risk concentration [50]. A broader client base - especially when targeting female borrowers who typically exhibit higher repayment rates - can improve financial outcomes and institutional stability. In addition, strategic diversification across sectors and customer groups minimizes exposure to market fluctuations and reduces the likelihood of systemic loan default. This is particularly important for avoiding over-concentration in high-growth sectors that may become saturated or volatile [10].

Hypothesis 6. *Client outreach positively affects the financial self-sufficiency of PCFs.*

3.1.7. Transparency

Transparency in financial reporting and organizational operations is essential for sustaining trust, improving accountability, and attracting long-term investment. Transparent practices - such as clear financial disclosures and audited statements - enable stakeholders

to make informed decisions and monitor institutional performance [51]. Moreover, transparency plays a vital role in reducing corruption by increasing the visibility of financial flows and decision-making processes, thereby deterring misappropriation and fraud [52]. For PCFs, which often face public scrutiny and regulatory oversight, enhancing financial transparency is critical to achieving and maintaining financial sustainability.

Hypothesis 7. *Organizational transparency positively affects the financial self-sufficiency of PCFs.*

3.1.8. Legal and Policy Environment

The legal and policy environment of the government create a legal corridor to help PCFs operate safely and transparently. The Law on Credit Institutions of Vietnam (2010) has specifically stipulated the requirements for charter capital, reserve fund ratio, as well as democratic and transparent governance principles for cooperative credit institutions. In the initial stage, the government also applies preferential policies on taxes, training and development orientation, helping young PCFs to stand firm in the market. Some scholars believe that although the legal framework has been clearly established, the effectiveness of supervision and enforcement is still not consistent, especially in the context of a volatile economy, which requires the government to continuously adjust policies to suit actual conditions.

Hypothesis 8. *Legal and policy environment positively affects the financial self-sufficiency of PCFs.*

3.2. Sample and Specification of the Model

The research model employs a multivariate linear regression:

$$\mathbf{Y} = \boldsymbol{\beta 0} + \boldsymbol{\beta 1}^{*}\mathbf{X1} + \boldsymbol{\beta 2}^{*}\mathbf{X2} + \boldsymbol{\beta 3}^{*}\mathbf{X3} + \boldsymbol{\beta 4}^{*}\mathbf{X4} + \boldsymbol{\beta 5}^{*}\mathbf{X5} + \boldsymbol{\beta 6}^{*}\mathbf{X6} + \boldsymbol{\beta 7}^{*}\mathbf{X7} + \boldsymbol{\beta 8}^{*}\mathbf{X8} + \boldsymbol{\varepsilon i} \quad (1)$$

where:

Y: Financial Self-Sufficiency (FSS), the dependent variable, measuring PCFs' ability to cover operational and financial costs [3].

X_1 (OC): Organizational Capacity, reflecting resource management and operational efficiency.

X_2 (OP): Organizational Performance, capturing productivity and financial outcomes.

X_3 (LPM): Loan Portfolio Management, encompassing loan quality and risk mitigation.

X_4 (MQ): Management Quality, including governance and decision-making processes.

X_5 (CO): Customer Outreach, measuring market expansion and service accessibility.

X_6 (OT): Organizational Transparency, reflecting accountability and information disclosure.

X_7 (LPE): Legal and Policy Environment, capturing regulatory impacts on operations.

X_8 (FS): Financial Sustainability, assessing internal financial health factors.

β0: Constant; **β1**–**β8**: Regression coefficients; **εi**: Error term.

The model tests the statistical significance of each factor's impact on FSS at a 95% confidence level ($p < 0.05$).

3.3. Data Collection and Sampling

Data were collected through a quantitative survey of PCFs' stakeholders (managers, financial staff, and customers) across Vietnam's 63 provinces. The survey, conducted from October 13, 2024, to March 13, 2025, used a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) to measure perceptions of the eight factors. A stratified random sampling method was employed to ensure representation, with PCFs stratified by region (North, Central, South), operational scale (small, medium, large), and financial performance (high, medium, low). A total of 363 valid responses were obtained after data cleaning, providing robust statistical power for regression analysis [58]. The sample's demographic profile is detailed in Section 4.1.

3.4. Data Analysis

Data analysis was conducted in three stages. First, Cronbach's Alpha assessed the reliability of measurement scales, with all constructs achieving coefficients above 0.70 [59]. Second, Exploratory Factor Analysis (EFA) using Principal Component Analysis with Varimax

rotation validated the factor structure, ensuring Kaiser-Meyer-Olkin (KMO) values ≥ 0.5 and Bartlett's test significance ($p < 0.05$). Third, multivariate linear regression tested the hypotheses, with Adjusted R^2 and Durbin-Watson statistics evaluating model fit and checking for first-order autocorrelation, respectively. The F-test ($p < 0.05$) assessed overall model significance, while t-tests evaluated individual regression coefficients. Robustness checks, including variance inflation factor (VIF) tests for multicollinearity, were conducted to address potential negative regression coefficients and ensure model reliability.

4. Results and Discussion

4.1. Descriptive Statistics

The survey, conducted from October 13, 2024, to March 13, 2025, yielded 363 valid responses from stakeholders of People's Credit Funds (PCFs) across Vietnam's 63 provinces, using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The larger sample size enhances statistical power and representativeness compared to smaller studies [58]. **Table 1** summarizes the demographic profile of the respondents.

Table 1. Descriptive statistics of the research sample.

Category	Attribute	Percentage (%)
Gender	Male	41.4%
	Female	58.6%
Age	Under 35 years	46.8%
	35 to 45 years	32.9%
	46 to 55 years	13.2%
	56 and above	7.1%
Role	Board of Directors Member	27.5%
	Supervisory Board Member	11.4%
	Director	17.5%
	Middle Manager	7.9%
	Other Roles	35.7%
Education Level	High School	2.1%
	Bachelor's Degree	87.1%
	Master's Degree	8.2%
	Doctorate	1.8%
	Others	0.7%
Experience	Less than 3 years	30.0%
	3 to 10 years	20.7%
	Over 10 years	49.3%
Purchase Frequency	1–3 times per month	76.8%
	4–6 times per month	17.1%
	More than 6 times	6.1%

The diverse sample, with 58.6% female respondents, 87.1% holding a bachelor's degree, and 49.3% with over 10 years of experience, provides robust insights into PCF operations.

4.2. Reliability and Validity Tests

4.2.1. Cronbach's Alpha Test

Cronbach's Alpha was calculated to assess the reliability of measurement scales based on 363 observations. **Table 2** presents the results.

All constructs achieved Cronbach's Alpha values above 0.70 (except OT at 0.640, still acceptable), indicating strong internal consistency [59]. The larger sample size enhances the precision of these estimates.

4.2.2. CFA Assessment

Confirmatory Factor Analysis (CFA) validated the measurement model using 363 observations. **Table 3** presents the results.

Table 2. Cronbach's alpha reliability test.

Definition	Number of Observed Variables	Cronbach's Alpha	Composite Reliability	Extracted Variance (%)	Status
Organizational Capacity (OC)	4	0.870	0.750	54.0	Accepted
Organizational Performance (OP)	4	0.925	0.730	50.0	Accepted
Loan Portfolio Management (LPM)	4	0.860	0.755	53.0	Accepted
Management Quality (MQ)	6	0.950	0.680	56.0	Accepted
Customer Outreach (CO)	4	0.930	0.750	55.5	Accepted
Organizational Transparency (OT)	4	0.640	0.775	64.0	Accepted
Legal and Policy Environment (LPE)	3	0.865	0.710	51.0	Accepted
Financial Sustainability (FS)	4	0.875	0.665	74.5	Accepted

Table 3. Validity and reliability.

Construct	CR	AVE	MSV	MaxR(H)	OC	OP	LPM	MQ	CO	OT	LPE	FS
OC	0.865	0.675	0.400	0.870	0.822							
OP	0.850	0.650	0.550	0.855	0.430***	0.806						
LPM	0.875	0.700	0.400	0.880	0.440***	0.340***	0.837					
MQ	0.870	0.690	0.480	0.875	0.330***	0.350***	0.340***	0.831				
CO	0.865	0.680	0.470	0.870	0.310***	0.390***	0.330***	0.450***	0.825			
OT	0.885	0.715	0.320	0.890	0.330***	0.280***	0.340***	0.270***	0.260***	0.846		
LPE	0.840	0.635	0.490	0.845	0.500***	0.470***	0.370***	0.340***	0.440***	0.360***	0.797	
FS	0.850	0.580	0.490	0.855	0.510***	0.620***	0.540***	0.560***	0.550***	0.400***	0.530***	0.762

Note: *** $p < 0.001$.

Discriminant validity is established, as the square root of AVE for each construct exceeds its correlations with other constructs [60].

4.2.3. Regression Results

Multivariate linear regression was conducted on 363 observations to test the hypotheses. **Table 4** presents the regression weights and standardized coefficients.

The model explains a significant portion of variance in FSS (Adjusted $R^2 = 0.65$, F-test $p < 0.001$). Variance Inflation Factor (VIF) tests (VIF < 5) confirmed no multicollinearity. Negative coefficients for OC, OP, LPM, MQ, CO, and OT suggest context-specific dynamics, such as risk-averse resource allocation or regulatory constraints, which are discussed below.

Table 4. Regression weights and standardized regression weights.

Relationship	Estimate	S.E.	C.R.	*p*	Label
FS ← OC	−0.120	0.070	−1.714	0.087	
FS ← OP	−0.380	0.120	−3.167	***	
FS ← LPM	−0.150	0.070	−2.143	***	
FS ← MQ	−0.280	0.090	−3.111	***	
FS ← CO	−0.240	0.080	−3.000	***	
FS ← OT	−0.220	0.070	−3.143	***	
FS ← LPE	0.100	0.060	1.667	0.096	
FS ← FS	0.190	0.030	6.333	***	

Note: *** $p < 0.001$.

4.3. Discussion

The regression results reveal that Organizational Performance (OP, $\beta = -0.380$, $p < 0.001$), Loan Portfolio Management (LPM, $\beta = -0.150$, $p < 0.001$), Management Quality (MQ, $\beta = -0.280$, $p < 0.001$), Customer Outreach (CO, $\beta = -0.240$, $p < 0.001$), Organizational Transparency (OT, $\beta = -0.220$, $p < 0.001$), and Financial Sustainability (FS, $\beta = 0.190$, $p < 0.001$) significantly impact FSS, while Organizational Capacity (OC, $\beta = -0.120$, $p = 0.087$) and Legal and Policy Environment (LPE, $\beta = 0.100$, $p = 0.096$) are marginally insignificant. The negative coefficients for OC, OP, LPM, MQ, CO, and OT, contrary to theoretical expectations, may reflect context-specific dynamics and inherent trade-offs within Vietnam's PCFs. In specific, stringent loan portfolio management (LPM),

while crucial for long-term risk mitigation, often entails increased short-term operational costs associated with robust credit assessment, monitoring, and debt recovery processes, thereby reducing FSS. Similarly, high organizational transparency (OT), though vital for stakeholder trust and accountability, can lead to higher compliance costs and administrative burdens, temporarily impacting financial self-sufficiency[1]. Aggressive customer outreach (CO), particularly in rural and underserved areas, may incur significant marketing and logistical expenses that temporarily outweigh the revenue generated from an expanded client base, thus offsetting immediate financial sustainability[37]. The negative impact of Management Quality (MQ) and Organizational Performance (OP) might suggest that investments in enhancing managerial capabilities or pursuing higher operational efficiency (e.g., through process optimization or technological upgrades) lead to increased initial costs before yielding long-term financial benefits. This highlights a critical operational trade-off within cooperative credit institutions, where efforts to strengthen internal functions or expand services may initially strain financial resources, especially in a developing market context. These findings align partially with global microfinance literature; for example, Ayayi and Sene found that effective loan portfolio management enhances sustainability in African MFIs, but excessive risk controls can limit profitability, similar to the negative LPM coefficient observed here. In contrast, the positive impact of LPE (though insignificant) resonates with Hannig and Jansen, who emphasize the role of supportive regulations in fostering MFI stability. Compared to Bangladeshs Grameen Bank, where customer outreach drives sustainability, Vietnams PCFs face unique challenges due to regulatory constraints and rural market dynamics.

Though the findings are relatively new and contradict with certain studies such as Mia[15], Hartarska[26], Delis & Papanikolaou[32], Hermes & Lensink[34], Phan & Chan[35], these results align partially with global microfinance literature. For example, Ayayi and Sene[6] found that effective loan portfolio management enhances sustainability in African MFIs, but excessive risk controls can limit profitability, similar to the negative LPM coefficient observed here. In contrast, the positive impact of LPE (though insignificant) resonates with Hannig and Jansen[12], who emphasize the role of supportive regulations in fostering MFI stability. Compared to Bangladesh's Grameen Bank, where customer outreach drives sustainability[21], Vietnam's PCFs face unique challenges due to regulatory constraints and rural market dynamics.

The results contribute to organizational management theory by highlighting trade-offs between operational efficiency and financial sustainability in cooperative credit institutions. Practically, PCF managers should balance risk management with revenue generation and leverage supportive policies to enhance FSS. Policymakers could introduce tax incentives or digital transformation subsidies to reduce operational costs, aligning with SDG 8 (economic growth) and SDG 1 (poverty reduction). Future research should explore longitudinal data to clarify causal relationships and examine digital transformation's moderating role.

5. Conclusion and Recommendations

This study, based on 363 survey responses collected from October 13, 2024, to March 13, 2025, across Vietnam's 63 provinces, examines the factors influencing the financial sustainability of People's Credit Funds (PCFs). The results reveal that Organizational Performance (OP, $\beta = -0.380$, $p < 0.001$), Loan Portfolio Management (LPM, $\beta = -0.150$, $p < 0.001$), Management Quality (MQ, $\beta = -0.280$, $p < 0.001$), Customer Outreach (CO, $\beta = -0.240$, $p < 0.001$), Organizational Transparency (OT, $\beta = -0.220$, $p < 0.001$), and Financial Sustainability (FS, $\beta = 0.190$, $p < 0.001$) significantly impact Financial Self-Sufficiency (FSS), while Organizational Capacity (OC) and Legal and Policy Environment (LPE) are marginally insignificant ($p > 0.05$). The negative coefficients for OP, LPM, MQ, CO, and OT suggest context-specific trade-offs, such as increased operational costs from stringent risk management or aggressive outreach efforts[1]. This study contributes to organizational management theory by highlighting these trade-offs in cooperative credit institutions and extends financial systems theory by integrating regulatory and operational dynam-

ics in Vietnam's PCFs.

From the results, we propose several recommendations and policy implications. For PCF managers, balancing operational efficiency with revenue generation and strategic cost management is critical. To address the negative impact of stringent loan portfolio management (LPM), PCFs should adopt risk-based lending models supported by digital tools to streamline processes, thereby reducing administrative costs while maintaining loan quality[38]. Customer outreach (CO) strategies should prioritize targeted marketing to high-potential rural clients, leveraging cost-effective digital channels (e.g., mobile banking, social media campaigns) to minimize excessive marketing and logistical expenses. Regarding Organizational Transparency (OT), while vital for stakeholder trust and accountability, the study indicates that it can incur significant short-term costs. To mitigate this, PCFs should focus on optimizing reporting processes through digital transformation. Specifically, instead of relying on costly traditional methods such as extensive manual audits or printed annual reports, PCFs should leverage FinTech solutions and integrated digital platforms for financial disclosure. This includes: automating data collection and reporting systems to reduce human error and administrative burdens; utilizing secure online portals and mobile applications for publishing audited financial statements and other mandatory disclosures, reducing printing and distribution costs while ensuring wider accessibility; and investing strategically in staff training on digital literacy and data management, enabling internal teams to handle compliance requirements more efficiently rather than solely relying on expensive external consultants. These low-cost alternatives can help PCFs maintain transparency without excessively burdening their financial self-sufficiency.

For policymakers, the State Bank of Vietnam could introduce tax incentives or subsidies specifically designed for PCFs adopting digital platforms and enhancing their risk management infrastructure. These measures, such as grants for software implementation or tax breaks for expenditures on digital training, would help offset the initial costs associated with technological adoption and improved transparency, aligning with SDG 8 (economic growth) and SDG 1 (poverty reduction). These measures resonate with global microfinance practices, such as Bangladesh's Grameen Bank, where technology-driven services enhance sustainability by lowering transaction costs and expanding outreach efficiently[21]. Policymakers should also consider reviewing and adapting regulatory frameworks to allow for greater flexibility in operational cost management for PCFs, especially when these costs are incurred for initiatives that enhance long-term stability and social outreach.

This study, despite providing valuable insights into the factors influencing the financial self-sufficiency (FSS) of People's Credit Funds (PCFs) in Vietnam, has several limitations. Firstly, its cross-sectional design restricts the ability to infer causal relationships, as the observed negative coefficients for some theoretically positive drivers, like Management Quality and Organizational Transparency, might reflect complex interactions and time lags not fully captured. Initial investments in these areas could lead to short-term cost increases before yielding long-term financial benefits, which a cross-sectional approach cannot illustrate. Secondly, while reliability and validity tests were conducted, the model may still be subject to unobserved variables or multivariate complexities that are not fully captured. Lastly, the study's data granularity could be improved by disaggregating PCFs by location or detailed operational scale. Future research should address these limitations by employing longitudinal panel data to establish more robust causal inferences and examine long-term trends. Explicitly incorporating digital transformation as a moderating variable could also provide deeper insights into how technology adoption influences sustainability. Additionally, conducting comparative studies with microfinance institutions in other developing countries would enhance the generalizability of the findings.

Author Contributions

Conceptualization, Q.M.L., and V.L.N.; methodology, Q.M.L. and V.L.N.; software, T.M.N.L. and A.P; validation, T.T.H.L.; formal analysis, D.L.N.; investigation, A.P.; data curation, B.H.N. and T.M.N.L.; writing—original draft

preparation, D.L.N.; writing—review and editing, V.L.N. and Q.M.L.; visualization, T.M.N.L.; supervision, D.L.N.; project administration, D.L.N. All authors have read and agreed to the published version of the manuscript.

Funding

This work is funded by the Banking Academy of Vietnam (BAV) according to BAV's Internal Spending Regulation, Appendix No. 12 - Regulations on revenue and expenditure of science and technology activities (Section 2.1.7).

Institutional Review Board Statement

Ethical review and approval were waived for this study due to the nature of the research, which involved an anonymous, voluntary online survey that did not collect personally identifiable or sensitive information and posed minimal risk to participants.

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

Data Availability Statement

Not applicable.

Acknowledgments

The authors gratefully acknowledge the financial support from the Banking Academy of Vietnam.

Conflicts of Interest

The authors declare no conflict of interest.

References

[1] Ha, D.V., 2019. The interactive relationship between credit growth and operational self-sustainability of People's Credit Funds in Mekong Delta Region of Vietnam. The Journal of Asian Finance, Economics and Business. 6(3), 55–65. DOI: https://doi.org/10.13106/jafeb.2019.vol6.no3.55

[2] UN.ESCAP, 2006. Microfinance for Poverty Reduction: Building Inclusive Financial Sectors in Asia and the Pacific. United Nations Publication: New York, NY, USA. Available from: https://www.findevgateway.org/sites/default/files/publications/files/mfg-en-paper-microfinance-for-poverty-reduction-building-inclusive-financial-sectors-in-asia-and-the-pacific-2006.pdf

[3] Ledgerwood, J., 2013. The new microfinance handbook: A financial market system perspective. World Bank Publications. Available from: https://hdl.handle.net/10986/12272 (cited 12 June 2024).

[4] Ha, V.D., 2020. The interactive and causal relationship between productivity and financial sustainability of People's Credit Funds in Vietnam. Academic Journal of Interdisciplinary Studies. 9(1), 115. DOI: https://doi.org/10.36941/ajis-2020-0010

[5] Seibel, H.D., Tam, N.T., 2009. The People's Credit Funds of Vietnam: A prudentially regulated credit cooperative movement. Enterprise Development and Microfinance. 21(2), 137–153. DOI: https://doi.org/10.3362/1755-1986.2010.012

[6] Ayayi, A.G., Sene, M., 2010. What drives microfinance institution's financial sustainability. The Journal of Developing Areas. 44(1), 303–324. DOI: https://doi.org/10.1353/jda.0.0093

[7] Tehulu, T.A., 2013. Determinants of financial sustainability of microfinance institutions in East Africa. European Journal of Business and Management. 5, 152–158. Available from: https://core.ac.uk/download/pdf/234624875.pdf (cited 30 June 2024).

[8] Schaltegger, S., Christ, K.L., Wenzig, J., et al., 2022. Corporate sustainability management accounting and multi-level links for sustainability – A systematic review. International Journal of Management Reviews. 24(4), 480–500. DOI: https://doi.org/10.1111/ijmr.12288

[9] Kaiser, T., Lusardi, A., 2024. Financial literacy and financial education: An overview. Available from: https://www.nber.org/papers/w32355 (cited 4 July 2024).

[10] Pham, T.T.T., 2020. Research on the development of microfinance in Vietnam [Master's Thesis]. Hanoi, Vietnam: National Economics University.

[11] Phan, A., Lu, C.H., Nguyen, M.P., 2022. Spending on Distribution Information and Communication Technologies and Cost-Effective Operation in Banks. Journal of Distribution Science. 20(9), 11–21. DOI: https://doi.org/10.15722/JDS.20.09.202209.11

[12] Hannig, A., Jansen, S., 2010. Financial inclusion and

financial stability: Current policy issues. SSRN Electronic Journal. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1729122 (cited 7 July 2024).

[13] Offiong, U.P., Szopik-Depczyńska, K., Cheba, K., et al., 2024. FinTech as a digital innovation in microfinance companies–systematic literature review. European Journal of Innovation Management. 27(9), 562–581. DOI: https://doi.org/10.1108/EJIM-04-2024-0462

[14] Zohra, B.F., Brahim, B.A., 2024. Empowering rural women through microfinance: challenges and opportunities. International journal of economic perspectives. 18(11), 2382–2395. Available from: https://ijeponline.lingcure.org/index.php/journal/article/view/724 (cited 16 December 2024).

[15] Mia, M.A., 2022. Social Purpose, Commercialization, and Innovations in Microfinance. Springer Books: Singapore. DOI: https://doi.org/10.1007/978-981-19-0217-8

[16] Chikwira, C., Vengesai, E., Mandude, P., 2022. The Impact of Microfinance Institutions on Poverty Alleviation. Journal of Risk and Financial Management. 15(9), 393. DOI: https://doi.org/10.3390/jrfm15090393

[17] Nguyen, M.P., Phan, A., 2022. Customer's Satisfaction About Mobile Banking Distribution Channel in Vietnamese Commercial Banks. Journal of Distribution Science. 20(8), 69–79. DOI: https://doi.org/10.15722/JDS.20.08.202208.69

[18] Nguyen, M.P., Phan, A., Pham, V.H., et al., 2023. Determinants Influencing Gen Z's Decision to Use Mobile Banking Distribution Channel on Vietnam. Journal of Organizational Behavior Research. 8(1), 105–120. DOI: https://doi.org/10.51847/vvtUTogGy

[19] Gupta, P.K., Sharma, S., 2023. Literature review on effect of microfinance institutions on poverty in South Asian countries and their sustainability. International Journal of Emerging Markets. 18(8), 1827–1845. DOI: https://doi.org/10.1108/IJOEM-07-2020-0861

[20] Cull, R., Demirgüç-Kunt, A., Morduch, J., 2007. Financial performance and outreach: A global analysis of leading microbanks. The Economic Journal. 117(517), F107–F133. DOI: https://doi.org/10.1111/j.1468-0297.2007.02017.x

[21] Yunus, M., 2007. Creating a world without poverty: Social business and the future of capitalism. Public Affairs: Washington, DC, USA.

[22] Gleißner, W., Günther, T., Walkshäusl, C., 2022. Financial sustainability: measurement and empirical evidence. Journal of Business Economics. 92(3), 467–516. DOI: https://doi.org/10.1007/s11573-022-01081-0

[23] Ilyas, S., Butt, M., Ashfaq, F., et al., 2020. Drivers for Non-Profits' Success: Volunteer Engagement and Financial Sustainability Practices through the Resource Dependence Theory. Economies. 8(4), 101. DOI: https://doi.org/10.3390/economies8040101

[24] Zabolotnyy, S., Wasilewski, M., 2019. The concept of financial sustainability measurement: A case of food companies from Northern Europe. Sustainability. 11(18), 5139. DOI: https://doi.org/10.3390/su11185139

[25] Rana, M., Hossain, M.K., Rekha, R.S., 2023. The operational aspects of monetary policy in controlling the demand and supply of money. Journal of Business Studies. 4(1), 177–200. DOI: https://doi.org/10.58753/jbspust.4.1.2023.26

[26] Hartarska, V., 2004. Governance and performance of microfinance institutions in Central and Eastern Europe and the Newly Independent States. SSRN Electronic Journal. DOI: https://doi.org/10.2139/ssrn.542602

[27] Mersland, R., Strøm, R.Ø., 2010. Microfinance mission drift? World Development. 38(1), 28–36. DOI: https://doi.org/10.1016/j.worlddev.2009.05.006

[28] Onsongo, G.K., 2012. Strategies adopted by Non-Governmental Organizations to achieve financial sustainability in Kenya [Ph.D. Thesis]. Paris, France: School of Business.

[29] Nordin, N., Abubakar, M.A., Nordin, N., 2024. The Role of Financial Constraints in Shaping Non-Financial Firm Performance in Nigeria: Evidence from the KZ Index. International Journal of Advanced Research in Economics and Finance. 6(3), 74–88.

[30] Williams, K.S., 2014. Non-profit financial sustainability. Royal Roads University: Victoria, BC, Canada.

[31] Rana, M., Islam, H., Al Mamun, M.A., et al., 2025. Impacts of bank loan performance, stability and risk factors on sustainable development goals: insights from South and Southeast Asia. Asia-Pacific Journal of Regional Science. 9(2), 449–478. DOI: https://doi.org/10.1007/s41685-025-00377-7

[32] Delis, M.D., Papanikolaou, N.I., 2009. Determinants of bank efficiency: evidence from a semi-parametric methodology. Managerial Finance. 35(3), 260–275. DOI: https://doi.org/10.1108/03074350910931771

[33] Berger, A.N., Humphrey, D.B., 1997. Efficiency of financial institutions: International survey and directions for future research. European Journal of Operational Research. 98(2), 175–212. DOI: https://doi.org/10.1016/S0377-2217(96)00342-6

[34] Hermes, N., Lensink, R., 2011. Microfinance: Its Impact, Outreach, and Sustainability. World Develop-

ment. 39(6), 875–881. DOI: https://doi.org/10.1016/j.worlddev.2009.10.021

[35] Phan, T., Tran, Q., 2021. Promoting green credit activities at Vietnamese commercial banks. Financial & Monetary Market Review. Available from: https://thitruongtaichinhtiente.vn/day-manh-hoat-dong-tin-dung-xanh-tai-cac-ngan-hang-thuong-mai-viet-nam-36044.html (cited 1 December 2024).

[36] Sharma, P.P., Pati, A.P., 2015. Subsidized microfinance and sustainability of self-help groups (SHGs): Observations from North East India. Indian Journal of Finance. 9(5), 7. DOI: https://doi.org/10.17010//2015/v9i5/71443

[37] Quayes, S., 2012. Depth of outreach and financial sustainability of microfinance institutions. Applied Economics. 44(13), 3421–3433. DOI: https://doi.org/10.1080/00036846.2011.577016

[38] Bongomin, G.O.C., Ntayi, J.M., Munene, J.C., et al., 2018. Mobile money and financial inclusion in Sub-Saharan Africa: The moderating role of social networks. Journal of African Business. 19(3), 361–384. DOI: https://doi.org/10.1080/15228916.2017.1416214

[39] Musaigwa, M., Kalitanyi, V., 2023. Examining the leadership approaches adopted by FinTech management when implementing organizational change prompted by digital transformation. Technology Audit and Production Reserves. 4(72), 20–27. DOI: https://doi.org/10.15587/2706-5448.2023.286627

[40] Sharma, S.K., Ilavarasan, P.V., Karanasios, S., 2024. Small businesses and FinTech: a systematic review and future directions. Electronic Commerce Research. 24(1), 535–575. DOI: https://doi.org/10.1007/s10660-023-09705-5

[41] Bhagat, A., Roderick, L., 2020. Banking on refugees: racialized expropriation in the FinTech era. Environment and Planning A: Economy and Space. 52(8), 1498–1515. DOI: https://doi.org/10.1177/0308518X20904070

[42] Rana, M., Islam, H., Al Mamun, M.A., et al., 2025. FinTech's impact on grocery retail in Bangladesh: a TAM approach. OPSEARCH. 1–24. DOI: https://doi.org/10.1007/s12597-025-00955-5

[43] Ashta, A., Herrmann, H., 2021. Artificial intelligence and FinTech: an overview of opportunities and risks for banking, investments, and microfinance. Strategic Change. 30(3), 211–222. DOI: https://doi.org/10.1002/jsc.2404

[44] Milana, C., Ashta, A., 2021. Artificial intelligence techniques in finance and financial markets: a survey of the literature. Strategic Change. 30(3), 189–209. DOI: https://doi.org/10.1002/jsc.2403

[45] Al Mamun, M.A., Islam, H., Karim, R., et al., 2025. Exploring the role of blockchain technology in promoting sustainability in the banking sector: an empirical analysis using structural equation modeling. AI & SOCIETY. 1–15. DOI: https://doi.org/10.1007/s00146-025-02250-9

[46] Szopik-Depczynska, K., Cheba, K., Vikhasta, M., et al., 2021. New form of innovations related to the environment - a systematic review. Procedia Computer Science. 192, 5039–5049. DOI: https://doi.org/10.1016/j.procs.2021.09.282

[47] Ascarya, A., Sakti, A., 2022. Designing micro-FinTech models for Islamic micro financial institutions in Indonesia. International Journal of Islamic and Middle Eastern Finance and Management. 15(2), 236–254. DOI: https://doi.org/10.1108/IMEFM-05-2020-0233

[48] Bollinger, B., Yao, S., 2018. Risk transfer versus cost reduction on two-sided microfinance platforms. Quantitative Marketing and Economics. 16(3), 251–287. DOI: https://doi.org/10.1007/s11129-018-9198-0

[49] Islam, H., Soumia, L., Rana, M., et al., 2024. Nexus between perception, purpose of use, technical challenges and satisfaction for mobile financial services: theory and empirical evidence from Bangladesh. Technological Sustainability. 3(2), 147–170. DOI: https://doi.org/10.1108/TECHS-10-2023-0040

[50] Fadikpe, A.A.A., Danquah, R., Aidoo, M., et al., 2022. Linkages between social and financial performance: Evidence from Sub-Saharan Africa microfinance institutions. Plos one. 17(3), e0261326. DOI: https://doi.org/10.1371/journal.pone.0261326

[51] Herghiligiu, I.V., Robu, I.B., Istrate, M., et al., 2023. Sustainable corporate performance based on audit report influence: an empirical approach through financial transparency and gender equality dimensions. Sustainability. 15(18), 14033. DOI: https://doi.org/10.3390/su151814033

[52] Puron-Cid, G., Reddick, C.G., Ganapati, S., 2019. Public value of online financial transparency: Financial sustainability and corruption of public officials in the US state governments. International Journal of Public Sector Management. 32(5), 467–488. DOI: https://doi.org/10.1108/IJPSM-03-2018-0073

[53] Bushman, R., Chen, Q., Engel, E., et al., 2004. Financial accounting information, organizational complexity and corporate governance systems. Journal of Accounting and Economics. 37(2), 167–201. DOI: https://doi.org/10.1016/j.jacceco.2003.09.005

[54] Walters, J.E., 2021. More than meets the eye: Organizational capacity of nonprofits in the poor, rural South. Journal of Rural Study. 86, 506–516. DOI: https://doi.org/10.1016/j.jrurstud.2021.07.017

[55] Miragaia, D.A.M., Ferreira, J.J.M., Vieira, C.T., 2024. Ef-

ficiency of Non-profit Organisations: a DEA Analysis in Support of Strategic Decision-Making. Journal of the Knowledge Economy. 15(1), 386–409. DOI: https://doi.org/10.1007/s13132-023-01298-6

[56] Le, H., Trinh, Q., 2023. Recommendations for the sustainable development of Vietnam's People's Credit Fund system. State Bank of Vietnam Journal. Available from: https://tapchinganhang.gov.vn/nhung-khuyen-nghi-nham-phat-trien-ben-vung-he-thong-quy-tin-dung-nhan-dan-11069.html (cited 15 January 2025).

[57] Trang, Q., 2021. Enhancing sustainability in the development of People's Credit Funds. Banking Journal. Available from: https://thoibaonganhang.vn/nang-cao-tinh-ben-vung-trong-phat-trien-quy-tin-dung-nhan-dan-140639.html (cited 24 January 2025).

[58] Hair, J.F., Black, W.C., Babin, B.J., et al., 2016. Multivariate Data Analysis, 8th ed. Cengage Learning: Boston, MA, USA.

[59] Hair, J.F., Black, W.C., Babin, B.J., et al., 2024. Multivariate Data Analysis, 7th ed. Pearson Education: London, UK.

[60] Fornell, C., Larcker, D.F., 1981. Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research. 18(1), 39–50. DOI: https://doi.org/10.2307/315131