CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Information Technology in Microfinance Banks

In the modern banking landscape, information technology (IT) plays a pivotal role in enhancing the operational efficiency of financial institutions, including microfinance banks. IT encompasses a broad range of tools, systems, and services, such as core banking software, automated teller machines (ATMs), mobile banking apps, and management information systems (MIS). Microfinance banks, often dealing with small-scale transactions and offering financial services to underserved populations, are increasingly leveraging IT to improve customer service, streamline operations, and bolster financial performance (Omar, 2020).

Microfinance institutions (MFIs), especially in developing countries like Nigeria, face several challenges, including limited access to capital, poor infrastructure, and the need for better customer management systems. IT provides a means for overcoming these obstacles by automating operations, enhancing data accuracy, and facilitating communication between stakeholders. For instance, mobile banking has allowed microfinance banks to extend their services beyond the physical branch, reaching rural and underserved communities with ease (Adebayo & Raji, 2019).

2.1.2 The Role of Information Technology in Enhancing Operational Efficiency

IT's impact on operational efficiency is one of the most significant contributions to financial performance in microfinance banks. The adoption of IT systems such as electronic

funds transfer (EFT), mobile banking, and internet banking has streamlined traditional banking operations, reducing human error and operational costs (Gichuki, 2019). For example, automated teller machines (ATMs) and mobile money platforms allow customers to access services 24/7, reducing queues and wait times at bank branches, which contributes to better customer satisfaction and retention (Okafor & Obinna, 2021).

Moreover, IT improves data management and decision-making processes by providing real-time financial reporting and analysis. By utilizing Management Information Systems (MIS), banks can track financial metrics like revenue, expenses, and customer behavior, enabling more informed strategic decisions (Ogunyemi, 2021). This also reduces the time spent on manual data entry and minimizes operational risks, further enhancing financial stability and growth.

2.1.3 Financial Performance

Though measured through indicators such as Return on Assets (ROA), Return on Equity (ROE), profit margins, and revenue growth, financial performance refers to the degree to which a financial institution, such as a microfinance bank, achieves its objectives and goals in terms of profitability, sustainability, growth, and risk management. It is an essential measure for evaluating the overall health and success of a banking institution. Financial performance is commonly assessed using financial metrics such as return on assets (ROA), return on equity (ROE), net profit margin, loan repayment rates, and cost-to-income ratio (Pandey, 2015).

In the context of microfinance institutions (MFIs), financial performance is a dual concept: it involves achieving financial sustainability while also meeting social objectives, such as financial inclusion. Microfinance banks operate with the dual mission of serving low-income populations and maintaining financial viability. Hence, strong financial performance ensures the bank's continued ability to offer credit and other financial services (Ledgerwood, 1999).

2.1.3.1 Key Financial Performance Indicators

- **Profitability:** This is one of the most widely used indicators of financial performance. It includes metrics such as net profit, operating profit margin, and return on equity (ROE). Profitability indicates how efficiently a microfinance bank converts revenues into profits.
- **Liquidity:** A bank's liquidity shows its capacity to meet short-term financial obligations. High liquidity ensures that the bank can satisfy customer withdrawals and emergency financial needs without disruptions.
- **Efficiency Ratios:** These include the cost-to-income ratio and operating expense ratio. They show how well the bank controls its operational costs relative to its income. Efficient banks are typically more financially sustainable.
- **Portfolio Quality:** Loan repayment rate, portfolio-at-risk (PAR), and default rate are key indicators of how well a bank manages its loan assets. Poor portfolio quality increases risk exposure and weakens financial performance (Rosenberg et al., 2009).
- **Capital Adequacy:** This refers to the bank's ability to absorb financial shocks. It is often measured by the capital adequacy ratio (CAR), which is critical for the long-term sustainability of microfinance banks.

2.1.3.2 Determinants of Financial Performance in Microfinance Banks

Financial performance in MFIs is influenced by various internal and external factors. These include:

- **Technology adoption:** The use of information technology enhances efficiency, reduces operational costs, and improves service delivery—all of which contribute positively to financial performance (Oladejo, 2020).
- **Management quality:** Effective leadership and decision-making influence how resources are allocated, risks are managed, and goals are achieved.
- **Customer base and loan portfolio:** A diverse and growing customer base, coupled with a well-managed loan portfolio, significantly boosts financial returns.
- **Regulatory environment:** Government policies, tax regimes, and regulatory compliance affect the operational costs and financial stability of microfinance banks.

2.1.3.2 The Link Between IT and Financial Performance

Multiple studies have shown a strong positive relationship between the integration of Information Technology (IT) and financial performance in banking institutions. According to Ayo et al. (2016), microfinance banks that invested in digital platforms such as mobile banking, online banking, and core banking applications recorded higher revenue and reduced costs over time. Information systems enhance real-time decision-making, reduce fraud, and improve financial reporting accuracy, all contributing to better financial outcomes.

In a similar study, Eze and Eze (2019) found that MFIs in Nigeria that deployed IT solutions achieved higher customer satisfaction and improved repayment rates, which are direct contributors to financial performance. These findings support the notion that strategic IT investment is not merely a cost but a value-adding asset.

2.1.4 The Impact of Information Technology on Customer Experience

Customer experience is critical to the success of microfinance institutions. IT adoption enables banks to offer more convenient, reliable, and faster services to their clients. For example, mobile banking applications provide customers with easy access to their accounts, allowing them to transfer funds, check balances, and pay bills at any time (Njiru, 2018). This shift toward digital platforms not only improves convenience for customers but also helps build trust and loyalty.

The use of IT in microfinance banks also facilitates the personalization of services. By analyzing customer data, banks can tailor their offerings, such as personalized loan products or savings plans, based on individual customer needs and behavior. This level of customer-centric service can enhance client satisfaction, increase the number of new customers, and ultimately improve the bank's financial performance (Bashir & Ali, 2017).

2.1.5 Financial Performance Indicators in Microfinance Banks

Financial performance in microfinance banks can be assessed through various key performance indicators (KPIs), including profitability, revenue growth, cost efficiency, and asset quality. The role of IT in influencing these indicators is widely acknowledged in literature. According to Adeoti and Adeniran (2021), banks that invest in IT infrastructure tend to have higher profitability due to improved service delivery and lower operational costs. Furthermore, the increased efficiency in loan processing and repayments enables microfinance banks to reduce default rates, improving their financial stability.

IT also plays a key role in improving the accuracy of financial records, leading to better risk management. Automated systems reduce the likelihood of human error in financial

reporting, which is essential in maintaining the trust of investors, clients, and regulatory bodies. The increased transparency afforded by digital tools also helps build a positive reputation for the bank, which may result in more business and higher profits.

2.2 Theoretical Review

A theoretical framework provides the foundation for understanding the concepts, variables, and relationships that form the basis of a research study. For this study, which investigates how information technology (IT) affects the financial performance of a microfinance bank, several relevant theories guide the analysis. The key theories that inform this research are the Technology Acceptance Model (TAM), the Resource-Based View (RBV), and the Balanced Scorecard (BSC) framework.

2.2.1 Technology Acceptance Model (TAM)

Developed by Davis (1989), the Technology Acceptance Model is one of the most influential theories explaining users' acceptance of technology. It posits that two main factors influence the acceptance and use of technology:

- Perceived Usefulness (PU): the degree to which a person believes that using a particular system will enhance their job performance.
- Perceived Ease of Use (PEOU): the degree to which a person believes that using the system would be free of effort.

In the context of microfinance banks like Balogun Fulani Microfinance Bank, TAM helps to explain how both employees and customers respond to IT systems such as mobile banking, online platforms, and core banking software. If users perceive the systems as useful and easy to use, adoption increases, leading to improved service delivery, efficiency, and ultimately better

financial performance. This model supports the analysis of IT tools' effectiveness from a human-centered perspective.

2.2.2 Resource-Based View (RBV) of the Firm

Propounded by Wernerfelt (1984) and further developed by Barney (1991), the Resource-Based View theory asserts that organizations achieve sustainable competitive advantage through the strategic use of valuable, rare, inimitable, and non-substitutable (VRIN) resources. In this study, information technology is viewed as a strategic resource.

Under the RBV, IT infrastructure, skilled IT personnel, and digital platforms can be considered internal resources that drive innovation, reduce costs, improve data management, and support customer service—all of which are components of financial performance. For Balogun Fulani Microfinance Bank, the theory suggests that investment in and strategic deployment of IT can lead to long-term performance advantages, especially in a competitive and technology-driven financial environment.

2.2.3 The Balanced Scorecard (BSC) Framework

Developed by Kaplan and Norton (1992), The Balanced Scorecard is a strategic performance management tool that goes beyond traditional financial metrics to include:

- **Financial Perspective** (e.g., profitability, return on investment)
- **Customer Perspective** (e.g., satisfaction, retention)
- **Internal Business Process Perspective** (e.g., operational efficiency, innovation)
- **Learning and Growth Perspective** (e.g., employee training, IT capabilities)

This model is particularly relevant to microfinance institutions, which balance financial goals with social responsibilities. The BSC provides a holistic approach to evaluating the impact of information technology. For instance, mobile banking can improve customer satisfaction

(Customer Perspective), while automation can reduce cost and errors (Internal Process), leading to improved financial outcomes (Financial Perspective). Staff IT literacy falls under the Learning and Growth Perspective, contributing indirectly to all other performance areas.

The BSC supports this research by demonstrating how IT tools influence financial performance through multiple interconnected dimensions.

2.2.4 Systems Theory

Developed by: Ludwig von Bertalanffy (1950s), Systems Theory views an organization as a system composed of interrelated and interdependent parts. The performance of the whole organization depends on how well these parts interact and align with environmental inputs.

In this study, Systems Theory helps explain how different IT components (e.g., MIS, mobile banking, digital records, network infrastructure) interact with various departments (e.g., finance, operations, customer service) to influence the overall performance of the microfinance bank. A failure or inefficiency in one system (e.g., poor IT literacy or outdated infrastructure) can compromise the financial performance of the entire institution.

The integration of these theories provides a solid foundation for understanding how information technology can be leveraged to improve the financial performance of microfinance banks. These frameworks will guide the analysis of how various IT components interact with human and operational systems to drive profitability, efficiency, and long-term sustainability.

2.3 Empirical Review

The integration of Information Technology (IT) into the operations of microfinance banks (MFBs) has been pivotal in enhancing their economic performance. IT adoption facilitates improved service delivery, operational efficiency, and financial inclusion, which are critical for the sustainability and growth of MFBs in Nigeria.

A number of studies have empirically assessed the impact of IT on the performance of microfinance banks, particularly in Nigeria and other developing countries. For instance, Adebayo & Raji (2019) found that microfinance banks that adopted mobile banking and internet banking platforms experienced significant growth in customer numbers and revenue. Similarly, Gichuki (2019) noted that IT integration reduced operational costs by automating manual processes, thus improving profitability.

Adebiyi et al. (2022) conducted a comprehensive study on 1,314 MFBs in Nigeria from 2012 to 2020, revealing that digitalization significantly impacts microfinance sustainability. The study highlighted that while digitalization offers opportunities for efficiency and outreach, it also introduces challenges such as increased competition from fintech companies and the need for substantial investment in IT infrastructure. The authors recommend that MFBs leverage digital innovations to reduce transaction costs and enhance service delivery.

Ezeike-Obuna et al. (2024) examined the relationship between digital technology and the organizational effectiveness of MFBs in Enugu State, Nigeria. The study found that the adoption of digital technologies, including mobile banking and automated systems, positively influences loan monitoring, regulatory compliance, and customer satisfaction. The researchers advocate for increased investment in digital infrastructure to improve competitiveness and operational efficiency. Ani et al. (2014) explored the impact of IT on bank profitability in Nigeria, focusing on a sample of banks quoted on the Nigerian Stock Exchange. The study concluded that while IT investment is essential for modern banking operations, its direct impact on profitability is not always significant. This suggests that MFBs must strategically implement IT solutions that align with their operational goals to realize economic benefits.

In a case study of the Bank of Industry (BOI) in Nigeria, Ogunyemi (2021) highlighted that IT-driven operational improvements, such as digital loan applications and automated credit scoring, led to a significant reduction in loan processing time, higher loan approval rates, and better portfolio management. These factors collectively contributed to improved financial performance. A study by Kpodar and Andrianaivo (2019) assessed the impact of ICT on the performance of microfinance institutions (MFIs) in Niger. The findings indicated that ICT investments lead to improved financial performance by reducing operational errors and enhancing task execution speed. Although the study focused on Niger, the insights are applicable to Nigerian MFBs, emphasizing the importance of ICT in achieving operational efficiency and financial sustainability. Lawal (2022), the Managing Director of NPF Microfinance Bank, highlighted the role of IT and fintech in strengthening financial inclusion in Nigeria. He noted that digital platforms have expanded access to financial services, particularly for underserved populations. The integration of IT solutions enables MFBs to offer more inclusive financial products, thereby enhancing their economic performance and contributing to broader economic development.

Ojo (2018) conducted a study on financial performance determinants among Nigerian microfinance banks and found that operational efficiency, technological investment, and loan portfolio quality were the top predictors of profitability and sustainability. Ganiyu and Abubakar (2021) assessed the impact of mobile banking on the financial performance of MFIs in Kwara State and concluded that mobile platforms increased outreach and revenue generation by 25% within two years of implementation. Rosenberg et al. (2009) emphasized the importance of cost management and strong portfolio monitoring for achieving sustainable financial performance, especially in small-scale banks.

Several studies have examined the impact of financial statement analysis on investment decisions across various sectors. Oyerinde (2011) analyzed the usefulness of financial ratios in Nigeria and concluded that accounting information significantly influences investment decisions in quoted companies. Similarly, Fama and French (2004) emphasized that financial statements play a pivotal role in investment analysis and firm valuation.

2.4 Gaps in Literature

While numerous studies explore IT adoption in the banking sector, few specifically examine microfinance banks in Nigeria. Many findings are generalized across all financial institutions, overlooking the unique operational challenges and regulatory environment that MFBs face. Existing research often emphasizes customer satisfaction, outreach, or service delivery improvements due to IT adoption, but concrete evidence linking IT investment to economic performance indicators (e.g., profitability, cost reduction, asset growth) in Nigerian MFBs is scarce.

Most studies are concentrated in urban areas (e.g., Lagos, Enugu), leaving a gap in understanding how IT impacts rural-based or community-oriented MFBs, which are critical to Nigeria's financial inclusion agenda.

Studies rarely address the effects of emerging IT innovations such as artificial intelligence, blockchain, or big data analytics on the performance of MFBs. There is a gap in evaluating whether MFBs are prepared for or currently utilizing these technologies.

Many investigations are cross-sectional, assessing the relationship at a single point in time. There is a need for longitudinal studies to examine how IT affects MFB performance over time and to capture dynamic changes and trends. Although IT is recognized as beneficial, there is

limited research evaluating the cost-efficiency of such investments, especially for small and medium-sized MFBs that may struggle with infrastructure and funding.

The influence of Central Bank of Nigeria (CBN) policies and guidelines on IT adoption by MFBs is underexplored. There's a need for more research on how regulatory frameworks either support or hinder IT-based innovations in this sector. Few studies incorporate the views of end-users, including staff, clients, and IT managers within MFBs. A deeper understanding of user experience, adoption barriers, and satisfaction levels is still missing in most empirical work.