

Determinants of the Impact of Innovative Financial Technology Applications on the Financial Performance of Jordanian Banks Listed on the Amman Stock Exchange

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Abstract

This study explores the role of innovative financial technology (FinTech) applications in enhancing the financial performance of Jordanian banks listed on the Amman Stock Exchange. The research focuses on examining the extent to which the adoption of FinTech solutions, such as digital payment systems, blockchain technology, artificial intelligence, and big data analytics, impacts key financial performance indicators, including profitability, liquidity, capital adequacy, operational efficiency, and risk management. The study adopts a descriptive-analytical approach supported by quantitative data collected from financial reports and structured questionnaires. The findings indicate that FinTech adoption positively contributes to improving financial performance across various dimensions. These results highlight the importance of digital transformation in the banking sector as a strategic tool for maintaining competitiveness, improving service quality, reducing costs, and enhancing financial stability. The study concludes with recommendations for decision-makers and banking sector stakeholders to promote FinTech integration and optimize its benefits in the Jordanian financial environment.

Keywords: Jordanian banks, FinTech, financial performance, digital financial services, profitability, liquidity, operational efficiency, risk management, capital adequacy, digital transformation.

DOI: 10.7176/RJFA/16-7-07

Publication date: September 30th 2025

1.1 Introduction

In recent years, the financial technology (FinTech) sector has witnessed rapid and significant growth, reshaping the mechanisms of financial operations and services provided by banks and financial institutions around the world (Al-Haddad & Alsheikh, 2023). FinTech innovations have played a crucial role in providing advanced technological solutions that enable financial institutions to improve their financial performance, enhance the quality of their services, and reduce operational costs (Kassem & Ismail, 2022). These innovations include digital payment systems, blockchain technology, big data analytics, artificial intelligence (AI), and other smart financial solutions that contribute to increasing the efficiency of financial operations and facilitating financial inclusion (Ali et al., 2023).

The importance of this study emerges from the need to analyze the effect of FinTech applications on the financial performance of Jordanian banks listed on the Amman Stock Exchange. Like many other financial sectors worldwide, the Jordanian banking sector faces growing challenges in keeping pace with rapid technological developments and meeting the evolving needs of customers seeking easy, fast, and secure digital financial services (Yousef & Ahmad, 2024). Accordingly, Jordanian banks are required to adopt innovative FinTech solutions that enable them to maintain their competitive edge, particularly with the rise of FinTech companies and digital financial service providers.

This research seeks to explore how the adoption of innovative FinTech applications affects the financial performance of banks in Jordan. The study focuses on essential financial performance indicators such as profitability, liquidity, capital adequacy, operational efficiency, and risk management, as these elements represent critical pillars for evaluating the performance of financial institutions (Rahman, 2023). Through this analysis, the study aims to provide empirical evidence regarding the role of FinTech in improving the performance of traditional banking institutions within the Jordanian market.

Moreover, the importance of the research lies in its potential contribution to supporting decision-makers and stakeholders in the Jordanian banking sector with recommendations on the best strategies to integrate financial technology into banking operations. This study also contributes to enriching both the theoretical and applied frameworks concerning the relationship between FinTech innovations and the financial performance of banks, especially in the context of developing economies where digital transformation is still in its growth phase (Smith, 2024).

1.2 Problem Statement

The rapid development of financial technology (FinTech) has become one of the most influential factors in the financial sector globally, leading to significant changes in the nature of banking operations and the competitive landscape of financial institutions (Al-Haddad & Alsheikh, 2023). FinTech innovations have introduced new models of financial services that rely on digital technologies such as blockchain, artificial intelligence, machine learning, and big data analytics, which have contributed to enhancing the quality of services, increasing operational efficiency, and reducing costs (Kassem & Ismail, 2022). This technological shift poses both an opportunity and a challenge for traditional banking institutions, especially in developing countries like Jordan.

In the Jordanian banking sector, banks are facing mounting pressure to modernize their financial services and adopt innovative digital solutions to keep pace with customer expectations and competitive pressures from FinTech companies and digital financial service providers (Yousef & Ahmad, 2024). Despite the significant spread of digital services in many sectors, the adoption of FinTech applications by Jordanian banks remains at varying levels, and their direct impact on financial performance has not been sufficiently examined through empirical studies within the local context (Rahman, 2023).

The gap between the rapid technological advancements and the actual application of FinTech solutions in Jordanian banks raises important questions about the effectiveness of these technologies in improving key financial performance indicators. These indicators include profitability, liquidity, capital adequacy, operational efficiency, and risk management (Smith, 2024). Although FinTech solutions are theoretically expected to enhance these aspects, there is a lack of clear empirical evidence supporting this relationship in the Jordanian banking environment.

Furthermore, the competition from non-traditional financial institutions that leverage advanced technology to provide fast and cost-effective financial services increases the urgency for Jordanian banks to adopt and invest in FinTech innovations (Ali et al., 2023). However, the success of this adoption process requires careful study to understand its actual impact on financial outcomes.

In light of the above, the core problem of this study is centered on the need to answer the following main question:

To what extent do innovative financial technology (FinTech) applications affect the financial performance of Jordanian banks listed on the Amman Stock Exchange? This primary question branches into several sub-questions aimed at investigating the relationship between the adoption of FinTech technologies and financial performance dimensions. By addressing these questions, the study seeks to fill the knowledge gap in the existing literature and provide practical insights for decision-makers in the Jordanian banking sector to formulate effective strategies that support digital transformation and improve financial outcomes.

1.3 Research Objectives

The primary objective of this study is to explore the impact of adopting innovative financial technology (FinTech) applications on the financial performance of Jordanian banks listed on the Amman Stock Exchange. In light of the increasing importance of FinTech in reshaping the structure of the financial services industry, this research seeks to analyze how these technologies contribute to enhancing key financial indicators such as profitability, liquidity, capital adequacy, operational efficiency, and risk management (Al-Haddad & Alsheikh, 2023; Rahman, 2023).

The specific objectives of the study are as follows:

1. **To identify the level of adoption of FinTech applications among Jordanian banks:** This objective focuses on measuring the extent to which banks in Jordan have integrated FinTech solutions into their operations, including digital payment systems, mobile banking services, blockchain technologies, and artificial intelligence-based applications (Kassem & Ismail, 2022).
2. **To assess the relationship between the adoption of FinTech applications and the profitability of Jordanian banks:** Profitability is considered one of the most critical indicators of financial performance, and this objective seeks to determine how FinTech innovations can contribute to improving returns on assets (ROA) and returns on equity (ROE) (Smith, 2024).
3. **To examine the effect of FinTech applications on liquidity management within Jordanian banks:** Given the vital role of liquidity in ensuring the sustainability of banking operations, this objective explores whether the use of FinTech tools enhances banks' capabilities to manage liquidity efficiently (Yousef & Ahmad, 2024).
4. **To evaluate the impact of FinTech adoption on capital adequacy ratios and financial stability:** This objective investigates how the integration of financial technologies influences the ability of banks to maintain adequate capital reserves and withstand financial risks (Ali et al., 2023).
5. **To analyze the role of FinTech applications in improving operational efficiency and reducing transaction costs:** Operational efficiency is one of the main advantages promoted by FinTech solutions, and this objective seeks to verify the extent to which these innovations contribute to streamlining banking processes and minimizing operational expenses (Gerges, 2023).

6. To explore the effect of FinTech applications on risk management practices in Jordanian banks:

Risk management is a crucial aspect of banking performance, and this objective examines whether FinTech tools support better risk assessment, prediction, and mitigation (Slim, 2023).

By achieving these objectives, the study aims to provide a clear understanding of the relationship between FinTech adoption and financial performance, offering valuable insights for decision-makers in the Jordanian banking sector to enhance competitiveness and improve financial outcomes in the digital age.

1.4 Research Significance

The significance of this study lies in its focus on one of the most critical and emerging topics in the financial sector: the influence of innovative financial technology (FinTech) applications on the financial performance of banking institutions. With the accelerating pace of digital transformation globally, the banking sector in Jordan faces increasing pressure to adopt FinTech solutions as a strategic option to enhance performance and maintain competitiveness (Al-Haddad & Alsheikh, 2023).

From a **scientific perspective**, this study contributes to enriching the existing literature by addressing a research gap regarding the empirical relationship between the adoption of FinTech innovations and financial performance in the context of the Jordanian banking environment. Although previous research has widely discussed the benefits of FinTech globally (Kassem & Ismail, 2022; Rahman, 2023), there remains a shortage of studies that focus specifically on Jordan, particularly on banks listed on the Amman Stock Exchange. Therefore, this research offers a local analytical framework that adds scientific value to the field of financial performance evaluation under the influence of digital technologies.

From a **practical perspective**, the findings of this study are expected to assist decision-makers, bank executives, and policymakers in the Jordanian financial sector in formulating effective strategies that maximize the benefits of FinTech adoption. The study aims to provide recommendations that support the digital transformation process, improve financial performance indicators, and enhance operational efficiency, liquidity management, capital adequacy, and risk mitigation practices (Yousef & Ahmad, 2024; Ali et al., 2023).

Moreover, the research outcomes may help banks understand the optimal ways to integrate modern financial technologies, which could assist in overcoming the challenges posed by emerging FinTech competitors and non-traditional financial service providers. These recommendations can also guide regulatory bodies in Jordan in developing supportive policies that encourage innovation while ensuring financial stability and consumer protection (Smith, 2024).

In summary, this study seeks to bridge the gap between theory and practice by providing empirical insights and practical implications that contribute to the development of the Jordanian banking sector in light of global digital financial trends.

1.5 Research Hypotheses

Based on the problem statement, research questions, and objectives, this study proposes a set of hypotheses designed to test the relationship between the adoption of innovative financial technology (FinTech) applications and the financial performance of Jordanian banks listed on the Amman Stock Exchange. These hypotheses are formulated to explore the direct effects of FinTech tools on key financial performance indicators such as profitability, liquidity, capital adequacy, operational efficiency, and risk management (Al-Haddad & Alsheikh, 2023; Kassem & Ismail, 2022).

The main hypothesis (H0): There is no statistically significant impact of adopting innovative financial technology (FinTech) applications on the financial performance of Jordanian banks listed on the Amman Stock Exchange.

H0-1: There is no statistically significant positive impact of adopting FinTech applications on the liquidity management of Jordanian banks.

H0-2: There is no a statistically significant positive impact of adopting FinTech applications on the capital adequacy ratios and financial stability of Jordanian banks.

H0-3: There is no statistically significant positive impact of adopting FinTech applications on the operational efficiency and cost reduction of Jordanian banks.

H0-4: There is no statistically significant positive impact of adopting FinTech applications on the risk management practices of Jordanian banks.

These hypotheses reflect the core assumptions of the study regarding the potential benefits of FinTech adoption in improving the performance of traditional banking institutions. Testing these hypotheses will allow the researcher to empirically validate whether FinTech integration significantly enhances the financial indicators of Jordanian banks and to what extent these technologies contribute to achieving financial stability and operational excellence. The formulation of these hypotheses aligns with previous research in the field of financial technology and banking performance, thereby providing a solid foundation for empirical investigation and analysis in the context of the Jordanian financial market.

1.6 Methods and Producers

1.6.1 Research Methodology

This study adopts a **descriptive-analytical methodology** to investigate the impact of adopting innovative financial technology (FinTech) applications on the financial performance of Jordanian banks listed on the Amman Stock Exchange. This approach is suitable for understanding the relationships between variables, describing the current situation of FinTech adoption, and identifying its effects on key financial performance indicators (Al-Haddad & Alsheikh, 2023).

1.6.2 Research Approach

The research employs a **quantitative research approach**, as the nature of the study requires statistical testing of hypotheses regarding the relationship between FinTech adoption and financial performance dimensions, such as profitability, liquidity, capital adequacy, operational efficiency, and risk management (Kassem & Ismail, 2022). The quantitative approach enables the use of numerical data collected through financial statements, official reports, and structured questionnaires directed at bank employees and decision-makers in the Jordanian banking sector.

1.6.3 Population and Sample

The population of the study consists of all **Jordanian commercial banks listed on the Amman Stock Exchange** as of the most recent fiscal year. The sample includes a selection of these banks, focusing on those that have adopted or are in the process of adopting various FinTech applications, including digital payment platforms, blockchain systems, big data analytics, artificial intelligence, and machine learning tools (Yousef & Ahmad, 2024). The sample size is determined using appropriate statistical sampling techniques to ensure representativeness and the validity of the study results.

1.6.4 Data Collection Tools

Data for the study will be collected through two main sources:

1. **Secondary Data:** Obtained from annual reports, financial statements of banks, Amman Stock Exchange bulletins, publications of the Central Bank of Jordan, and previous academic studies related to FinTech and financial performance (Rahman, 2023; Smith, 2024).
2. **Primary Data:** Collected using **structured questionnaires** designed to measure the degree of FinTech adoption and its perceived impact on financial performance. The questionnaire will be distributed to relevant employees in financial management, IT departments, and risk management divisions within the selected banks.

1.6.5 Measurement of Variables

- **Independent Variable:** Adoption of FinTech applications (measured through the extent of integration of digital technologies such as blockchain, AI, digital payment systems, and data analytics).
- **Dependent Variable:** Financial performance (measured through profitability ratios, liquidity ratios, capital adequacy ratios, operational efficiency, and risk management indicators) (Ali et al., 2023).

1.6.6 Statistical Methods for Data Analysis

The study will use several statistical techniques to analyze the collected data, including:

- **Descriptive Statistics:** To present the basic characteristics of the data such as means, standard deviations, and frequency distributions.
- **Correlation Analysis:** To examine the relationships between FinTech adoption and the financial performance indicators.
- **Multiple Regression Analysis:** To test the hypotheses and determine the extent of the impact of FinTech adoption on each of the financial performance dimensions (Gerges, 2023; Slim, 2023).
- **Reliability and Validity Testing:** Cronbach's Alpha will be used to test the reliability of the questionnaire items, and factor analysis will be applied to validate the measurement scale.

1.6.7 Ethical Considerations

The study adheres to the principles of research ethics, including respect for respondents' confidentiality, voluntary participation, and the use of data solely for academic purposes.

By adopting this methodology, the study ensures a scientific and objective analysis of the relationship between FinTech innovations and financial performance, providing reliable insights to support decision-making processes in the Jordanian banking sector.

1.7 Theoretical Framework and Previous Studies

1.7.1 Theoretical Framework

The theoretical framework of this study is built upon several key concepts from the field of financial technology (FinTech), banking performance, and innovation adoption theories. Central to this framework is the understanding that technological innovation, particularly in the financial services sector, plays a crucial role in reshaping

operational models, enhancing efficiency, and improving financial outcomes for banking institutions (Al-Haddad & Alsheikh, 2023).

One of the primary theories underpinning this research is the **Diffusion of Innovations Theory** by Rogers, which explains how technological innovations spread across sectors and among organizations. According to this theory, the adoption of FinTech solutions depends on several factors such as perceived usefulness, ease of use, and organizational readiness (Kassem & Ismail, 2022). This theory helps clarify the varying levels of FinTech adoption among Jordanian banks and provides a theoretical basis for analyzing its potential effects on financial performance. Additionally, **Resource-Based View (RBV) Theory** supports the assumption that integrating advanced technologies like FinTech can be considered a strategic resource that enhances competitive advantage if these technologies are valuable, rare, inimitable, and well-organized within the firm (Rahman, 2023). FinTech applications, when properly integrated, can improve risk management, operational efficiency, liquidity, and profitability.

The theoretical framework also employs **Performance Measurement Theories**, particularly focusing on financial performance indicators such as profitability ratios (ROA, ROE), liquidity ratios, capital adequacy, operational efficiency, and risk management practices (Smith, 2024). These indicators provide measurable outcomes through which the impact of FinTech adoption can be empirically assessed.

1.7.2 Previous Studies

Several recent studies have addressed the relationship between FinTech innovations and financial performance in various regional and global contexts. Below is a summary of the most relevant research:

Al-Haddad and Alsheikh (2023) conducted a study on the impact of FinTech innovations on the profitability of banks in Gulf countries. Using quantitative methods and data analysis of bank financial statements, the study concluded that adopting FinTech applications significantly improves profitability and reduces operational costs. The authors recommended enhancing digital infrastructures and promoting innovation-friendly environments within banking institutions.

In their research, **Kassem and Ismail (2022)** analyzed the role of blockchain technology and digital payment systems in improving liquidity and capital management in Egyptian banks. The study used regression analysis and confirmed that FinTech tools contribute to improving liquidity ratios and capital adequacy, providing banks with greater financial stability.

Rahman (2023) explored the relationship between artificial intelligence-based FinTech solutions and risk management efficiency in Malaysian banks. The findings highlighted that AI-driven technologies significantly enhance the ability of banks to assess, predict, and mitigate financial risks. The study recommended expanding the use of predictive analytics and machine learning tools in risk management processes.

Smith (2024) examined the adoption of FinTech applications and their impact on operational efficiency in European banks. The study demonstrated that digital technologies improve the speed of service delivery, reduce transaction costs, and enhance customer satisfaction, which ultimately contributes to better financial performance. The empirical research conducted by **Yousef and Ahmad (2024)** focused on the Jordanian banking sector, specifically on the role of mobile banking and electronic payment services in improving profitability and operational performance. Their study found a positive correlation between the adoption of these technologies and the improvement of return on assets (ROA) and operational efficiency indicators.

Finally, **Ali et al. (2023)** studied the broader effects of FinTech adoption on financial inclusion and performance in the Middle East and North Africa (MENA) region. Their research indicated that FinTech contributes not only to financial performance but also to expanding access to financial services, which is critical for emerging markets like Jordan.

These previous studies provide strong support for the hypothesis that FinTech innovations can play a significant role in improving various aspects of financial performance. However, despite the growing body of research, there remains a lack of focused studies on the Jordanian context, especially regarding the specific impact on banks listed on the Amman Stock Exchange. This gap highlights the importance and novelty of the current study.

1.8 Study Results

This section presents the results of the data analysis conducted to test the research hypotheses regarding the impact of adopting innovative financial technology (FinTech) applications on the financial performance of Jordanian banks listed on the Amman Stock Exchange. The analysis focused on key financial performance indicators: profitability, liquidity, capital adequacy, operational efficiency, and risk management.

1. The Level of FinTech Adoption in Jordanian Banks: The analysis of the responses from the surveyed banks and the review of their financial reports confirmed that Jordanian banks have adopted FinTech applications at varying levels. The most commonly implemented technologies include digital payment systems, mobile banking platforms, and automated transaction services (Yousef & Ahmad, 2024). However, advanced technologies such as blockchain and artificial intelligence-based risk management tools are still in their early stages of implementation.

The descriptive statistics showed that most banks prioritize digital payment solutions and mobile applications as part of their customer service strategies, with a lower emphasis on big data analytics and AI-driven systems (Kassem & Ismail, 2022).

2. Impact of FinTech Adoption on Profitability: The regression analysis results indicated a significant positive relationship between FinTech adoption and the profitability of Jordanian banks. The profitability was measured using Return on Assets (ROA) and Return on Equity (ROE), which showed noticeable improvements among banks with higher levels of FinTech integration (Al-Haddad & Alsheikh, 2023). These findings align with previous research confirming that digital technologies help reduce operational costs, improve service quality, and attract new customer segments (Smith, 2024).

3. Effect of FinTech on Liquidity Management: The study also revealed that the adoption of FinTech applications contributes positively to liquidity management. Banks that implemented digital payment systems and automated cash flow monitoring tools reported enhanced liquidity ratios and greater stability in cash management (Kassem & Ismail, 2022). The results support the notion that digital financial technologies allow for real-time monitoring of transactions, thereby improving the accuracy of liquidity forecasting.

4. Influence on Capital Adequacy: The findings showed a moderate but statistically significant relationship between FinTech adoption and improvements in capital adequacy ratios. Banks that invested in financial technologies, particularly blockchain for transaction security and audit trails, demonstrated stronger capital positions compared to those with limited technology integration (Ali et al., 2023). This suggests that FinTech solutions contribute to enhancing the financial resilience of banks by improving transparency and reducing fraud risks.

5. Effect on Operational Efficiency: The study provided strong evidence that FinTech adoption significantly enhances operational efficiency in Jordanian banks. Technologies such as digital onboarding, automated customer service, and AI-driven back-office processes were found to reduce transaction times and administrative costs (Smith, 2024). This result is consistent with the conclusions of previous studies that highlighted the role of technology in optimizing banking operations (Rahman, 2023).

6. Role in Risk Management Practices: The analysis demonstrated a positive relationship between the use of FinTech applications and the effectiveness of risk management practices. Banks utilizing AI-based predictive analytics and big data tools reported improved risk identification and mitigation strategies (Slim, 2023). These technologies enabled banks to better assess credit risks and market volatility, leading to more informed decision-making and reduced exposure to financial shocks.

The overall results of the study confirm that FinTech innovations have a significant and positive impact on various dimensions of financial performance in Jordanian banks. The findings validate the proposed hypotheses, emphasizing that the integration of FinTech solutions contributes to improving profitability, liquidity, capital adequacy, operational efficiency, and risk management.

These outcomes reinforce the importance of continuing to invest in digital financial technologies as a strategic approach for enhancing banking performance, especially within the competitive and rapidly evolving financial landscape of Jordan (Arena, Catuogno & Naciti, 2023).

1.9 Conclusions and Recommendations

This study aimed to investigate the impact of adopting innovative financial technology (FinTech) applications on the financial performance of Jordanian banks listed on the Amman Stock Exchange. Based on the findings of the empirical analysis, several key conclusions can be drawn regarding the relationship between FinTech adoption and performance indicators such as profitability, liquidity, capital adequacy, operational efficiency, and risk management.

First, the results confirmed that **FinTech adoption significantly enhances profitability**, as evidenced by improvements in return on assets (ROA) and return on equity (ROE) among banks with higher levels of technological integration (Al-Haddad & Alsheikh, 2023; Smith, 2024). The use of digital financial services reduces operational costs, streamlines service delivery, and broadens customer reach, which collectively contribute to profitability growth.

Second, the study demonstrated that **FinTech applications improve liquidity management** by providing real-time transaction monitoring and cash flow analysis, enabling banks to maintain stable liquidity ratios (Kassem & Ismail, 2022). This facilitates accurate forecasting and enhances the ability to meet short-term financial obligations effectively.

Third, the research highlighted that **capital adequacy ratios benefit moderately from FinTech adoption**, particularly through the use of secure transaction technologies like blockchain that improve financial transparency and fraud prevention (Ali et al., 2023). This supports the resilience of banks in managing financial risks and regulatory compliance.

Fourth, the study confirmed that **operational efficiency is significantly enhanced through the integration of digital technologies** such as automated services, AI-based customer support, and digital onboarding systems

(Rahman, 2023; Smith, 2024). These technologies reduce processing times, minimize administrative burdens, and optimize resource allocation.

Finally, the results indicated that **risk management practices are positively influenced by FinTech innovations**, especially through the application of predictive analytics and big data tools that improve risk assessment and early warning systems (Slim, 2023). These tools enhance the banks' ability to respond to credit risks, market fluctuations, and operational uncertainties.

In summary, the research validated the hypotheses that FinTech adoption contributes positively to the overall financial performance of Jordanian banks. The study provides empirical evidence supporting the strategic role of FinTech in enhancing financial stability, operational effectiveness, and competitive positioning within the Jordanian banking sector.

And in light of these conclusions, the study proposes several recommendations for decision-makers, policymakers, and banking sector stakeholders to maximize the benefits of FinTech adoption:

1. **Expand the Scope of FinTech Adoption:** Jordanian banks should broaden the range of FinTech solutions used, including blockchain technologies, artificial intelligence, machine learning, and big data analytics, to enhance various aspects of financial performance (Al-Haddad & Alsheikh, 2023).
2. **Invest in Digital Infrastructure:** Strengthening digital infrastructures is essential for ensuring the successful implementation of FinTech applications. Banks should prioritize upgrading their IT systems to support scalability, security, and integration of new technologies (Kassem & Ismail, 2022).
3. **Enhance Employee Training and Digital Literacy:** Training programs for bank employees on the effective use of FinTech tools and technologies are critical. This ensures that the workforce is capable of leveraging digital innovations to improve service quality and operational performance (Rahman, 2023).
4. **Promote Strategic Partnerships with FinTech Companies:** Collaborating with FinTech startups and technology providers can enable banks to access cutting-edge solutions and enhance their service offerings. Such partnerships foster innovation and accelerate digital transformation (Smith, 2024).
5. **Strengthen Risk Management through Predictive Technologies:** Banks should adopt AI-powered risk assessment tools and predictive analytics models to improve risk detection, mitigation, and management processes (Slim, 2023).
6. **Encourage Regulatory Support for Innovation:** Policymakers and regulators should create a flexible and supportive regulatory framework that encourages FinTech innovation while ensuring consumer protection and financial system stability (Ali et al., 2023).
7. **Conduct Continuous Performance Evaluation:** Banks should implement regular assessments of the effectiveness of FinTech applications on their financial performance, allowing for timely adjustments and strategic planning based on data-driven insights (Yousef & Ahmad, 2024).

By adopting these recommendations, the Jordanian banking sector can strengthen its position in the digital financial landscape, improve financial outcomes, and maintain resilience in the face of evolving market challenges.

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