

The Impact of Financial Technology Usage, Financial Inclusion, and Financial Behavior on SME Performance

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Abstract

Small and medium-sized enterprises (SMEs) play a crucial role in driving economic growth, generating employment, and fostering innovation in many countries. However, many SMEs still face challenges related to limited access to financial services, inefficient financial management, and low adoption of digital financial technologies. This study aims to examine the impact of financial technology usage, financial inclusion, and financial behavior on SME performance. A quantitative research approach was employed, utilizing primary data collected from 150 SME owners and managers via structured questionnaires. The data were analyzed using descriptive statistics, reliability and validity tests, correlation analysis, and multiple regression analysis. The results show that financial technology usage has a positive and significant effect on SME performance, indicating that the adoption of digital financial services can improve operational efficiency and financial accessibility for SMEs. Financial inclusion also has a significant positive influence on SME performance, suggesting that greater access to financial products and services enables SMEs to obtain capital, manage financial risks, and support business expansion. Furthermore, financial behavior was found to have the strongest positive effect on SME performance, highlighting the importance of responsible financial management practices such as budgeting, financial planning, and effective resource allocation. These findings suggest that the combination of digital financial technology adoption, expanded financial inclusion, and improved financial behavior plays an important role in enhancing SME competitiveness and sustainability. Therefore, policymakers, financial institutions, and SME development programs should encourage fintech adoption, expand financial inclusion initiatives, and improve financial literacy among SME owners to support sustainable SME growth in the digital economy.

Keywords: Financial Technology Usage, Financial Inclusion, Financial Behavior, SME Performance, Digital Finance.

1. Introduction

Micro, Small, and Medium Enterprises (SMEs) play a crucial role in supporting economic growth, employment generation, and poverty reduction in many countries, particularly in developing economies. SMEs are often considered the backbone of national economies because they contribute significantly to gross domestic product (GDP), create employment opportunities, and stimulate innovation and entrepreneurship. In emerging economies such as Indonesia, SMEs account for a substantial proportion of business entities and are responsible for absorbing a large share of the workforce. Despite their significant contribution, many SMEs continue to face various challenges, particularly related to limited



access to financial resources, weak financial management capabilities, and difficulties in adopting modern financial technologies. These challenges often hinder their ability to expand, compete in the digital economy, and improve overall business performance (Fatmawati & Hariyati, 2025).

In recent years, rapid advancements in digital technology have transformed the financial sector through the development of financial technology (fintech). Financial technology refers to the application of digital innovation to provide financial services such as mobile payments, peer-to-peer lending, digital banking, crowdfunding, and online investment platforms. The emergence of fintech has changed the traditional financial landscape by making financial services more accessible, efficient, and cost-effective, particularly for SMEs that often face difficulties in obtaining financing from conventional banking institutions. Fintech platforms enable SMEs to access capital, conduct financial transactions, and manage their financial operations more effectively, thereby improving their productivity and competitiveness in the marketplace (Safitri et al., 2024).

The adoption of financial technology has been widely recognized as an important driver of SME development and performance. Through digital payment systems, online financing platforms, and digital financial management tools, SMEs can improve operational efficiency, reduce transaction costs, and enhance financial transparency. Additionally, fintech technologies such as big data analytics, artificial intelligence, and blockchain can help reduce information asymmetry between lenders and borrowers, making it easier for SMEs to obtain financing and manage financial risks. As a result, fintech adoption can significantly improve SMEs' access to financial services and strengthen their financial capabilities (Chen & Guo, 2024).

Another important factor influencing SME performance is financial inclusion. Financial inclusion refers to the availability and accessibility of affordable financial services for individuals and businesses, including savings accounts, credit, insurance, and payment systems. Financial inclusion is particularly important for SMEs because it allows them to participate in formal financial systems and obtain the financial support needed for business expansion. When SMEs have better access to financial services, they can invest in productive assets, manage cash flow more effectively, and improve their operational efficiency, ultimately leading to improved business performance (Rosli & Mohamed Shith, 2025).

Financial inclusion also helps reduce economic inequality by providing equal opportunities for small businesses to access financial resources. With improved financial inclusion, SMEs can benefit from a wider range of financial products and services such as loans, savings accounts, and digital payment systems. These financial services enable SMEs to manage financial risks, increase investment capacity, and strengthen business sustainability. In addition, financial inclusion is closely related to digital finance development because digital financial platforms make financial services more accessible to previously underserved populations and businesses (Tandilino et al., 2025).

In addition to financial technology and financial inclusion, financial behavior is another important factor that influences SME performance. Financial behavior refers to how individuals or business owners manage their financial resources, including budgeting, saving, investing, and managing debt. Good financial behavior enables SME owners to allocate resources efficiently, maintain financial stability, and make better financial decisions for

business development. Conversely, poor financial behavior can lead to financial mismanagement, limited investment capacity, and ultimately lower business performance. Studies have shown that SME owners with strong financial behavior tend to manage their finances more effectively and achieve better financial outcomes for their businesses (Sugih & Fitriyah, 2024).

Financial behavior is also closely related to financial literacy and financial decision-making. SME owners who have a better understanding of financial management practices are more likely to adopt responsible financial behavior, such as maintaining proper financial records, controlling business expenses, and planning future investments. Such behavior contributes to improved financial sustainability and business growth. Furthermore, positive financial behavior encourages SMEs to utilize financial services and digital financial platforms more effectively, thereby strengthening the relationship between fintech adoption and business performance (Devender et al., 2025).

The integration of financial technology, financial inclusion, and financial behavior has become increasingly important in the modern digital economy. These three factors are interrelated and collectively influence the ability of SMEs to improve their performance and competitiveness. For example, fintech adoption can expand financial inclusion by providing easier access to digital financial services, while financial inclusion can enhance SME performance by enabling better access to capital and financial resources. At the same time, financial behavior determines how effectively SME owners utilize these financial services and technologies to support business growth. Studies indicate that financial technology and financial inclusion can significantly improve SME performance by facilitating access to financing, improving financial management, and supporting innovation and business development (Rizqi et al., 2024).

Despite the growing importance of fintech and financial inclusion, many SMEs still face challenges in adopting digital financial services due to limited digital literacy, a lack of technological infrastructure, and insufficient knowledge of financial management. In many developing countries, including Indonesia, SME owners may have limited awareness of available fintech platforms or lack the skills needed to use them effectively. Additionally, barriers such as regulatory constraints, cybersecurity concerns, and limited access to reliable internet infrastructure may also hinder fintech adoption among SMEs. These challenges highlight the need for further research to examine how financial technology usage, financial inclusion, and financial behavior interact to influence SME performance.

Furthermore, previous studies have produced mixed findings regarding the impact of financial technology and financial inclusion on SME performance. Some studies suggest that fintech adoption significantly improves business performance by enhancing operational efficiency and access to financing, while others indicate that fintech adoption alone may not directly influence SME performance without strong financial management capabilities. Similarly, while financial inclusion is generally associated with improved business outcomes, its effectiveness may depend on the financial behavior and financial literacy of SME owners (Ayem & Afrianiangrum, 2024).

Given these research gaps, it is important to examine the combined influence of financial technology usage, financial inclusion, and financial behavior on SME performance. Understanding how these factors interact can provide valuable insights for policymakers,

financial institutions, and SME owners in developing strategies to enhance SME competitiveness and sustainability. In particular, exploring these relationships can help identify key drivers of SME success in the digital economy and provide recommendations for improving access to financial services and promoting responsible financial behavior among SME owners.

The objective of this study is to analyze the impact of financial technology usage, financial inclusion, and financial behavior on SME performance in order to understand how these factors contribute to improving business sustainability, operational efficiency, and financial outcomes among small and medium enterprises.

2. Literature Review and Hypothesis Development

2.1. Financial Technology Usage and SME Performance

Financial technology (fintech) refers to the integration of digital technology into financial services to improve the efficiency, accessibility, and delivery of financial products such as digital payments, online lending, mobile banking, and financial management platforms. In recent years, fintech has become an important driver of business transformation, particularly for small and medium enterprises (SMEs), because it enables them to access financial services more efficiently and at lower cost compared to traditional financial institutions. Fintech platforms can facilitate faster transactions, improve financial transparency, and reduce operational barriers that often limit SME growth and competitiveness (Amin, A. M., 2025; Manafe et al., 2026). The use of digital financial services allows SMEs to manage payments, obtain financing, and track financial performance more effectively, which ultimately contributes to improved business outcomes.

The rapid development of fintech has significantly transformed the financial ecosystem and created new opportunities for SMEs to access capital and financial services. Traditionally, SMEs faced difficulties in obtaining financing due to strict credit requirements, limited collateral, and high administrative costs in conventional banking systems. Fintech solutions such as peer-to-peer lending, crowdfunding, and digital payment systems help overcome these barriers by providing alternative financing sources and simplified financial processes. As a result, fintech adoption allows SMEs to expand business operations, improve cash flow management, and increase financial efficiency.

Empirical studies have shown that fintech usage has a positive influence on SME performance. For example, research examining SMEs in Bali found that fintech adoption significantly improves financial performance because it enhances access to financing and facilitates more efficient financial transactions. Additionally, digital financial services enable SMEs to maintain better financial records and monitor financial activities in real time, which improves decision-making and strategic planning.

Furthermore, fintech technologies such as big data analytics and artificial intelligence help reduce information asymmetry between borrowers and lenders by providing better credit assessment mechanisms. This allows SMEs with limited credit history to access financial services more easily. By improving financial access and operational efficiency, fintech adoption can enhance SME competitiveness and sustainability in the digital economy.

Despite these benefits, fintech adoption may not automatically lead to improved SME performance without adequate digital literacy and financial management capabilities. Some studies have found that fintech may have a limited direct impact on financial performance if SME owners lack the skills needed to use digital financial services effectively. Therefore, while fintech has great potential to enhance SME performance, its effectiveness often depends on other supporting factors such as financial inclusion and financial literacy.

Based on the theoretical and empirical evidence, fintech adoption provides SMEs with access to efficient financial services, alternative financing opportunities, and improved financial management capabilities. These advantages enable SMEs to enhance productivity, expand operations, and strengthen financial performance.

H1: Financial technology usage has a positive effect on SME performance.

2.2. Financial Inclusion and SME Performance

Financial inclusion refers to the availability and accessibility of financial services for individuals and businesses, particularly those who are traditionally underserved by the formal financial sector. Financial inclusion plays a vital role in economic development because it enables individuals and businesses to access savings accounts, credit, insurance, and payment services. For SMEs, financial inclusion is particularly important because it provides access to financial resources that are necessary for business expansion, investment, and operational sustainability.

In many developing economies, SMEs face significant challenges in accessing financial services due to limited financial infrastructure, a lack of collateral, and insufficient financial literacy. Financial inclusion initiatives aim to reduce these barriers by expanding access to affordable financial products and services through formal financial institutions and digital financial platforms. When SMEs gain access to financial services, they can obtain working capital, invest in productive assets, and improve operational efficiency, which ultimately enhances business performance.

Digital financial inclusion has become increasingly important in the modern digital economy. The emergence of digital financial services such as mobile banking and online payment systems has expanded access to financial services for SMEs that previously had limited interaction with formal financial institutions. Digital financial inclusion allows SMEs to conduct financial transactions electronically, access financing through online platforms, and integrate digital tools into their business operations. This increased access to financial services can significantly improve SME competitiveness and business sustainability.

Several empirical studies support the relationship between financial inclusion and SME performance. Research indicates that SMEs with greater access to financial services tend to experience higher productivity, increased investment opportunities, and improved business growth. Access to financial services allows SME owners to manage business risks more effectively and maintain stable cash flow, which is essential for sustaining business operations and long-term development.

Financial inclusion also encourages entrepreneurship and economic participation by providing financial opportunities for small business owners who might otherwise be excluded from the financial system. When SMEs are integrated into the formal financial sector, they can benefit from various financial products such as business loans, digital payment platforms, and

savings instruments. These financial services not only enhance financial stability but also enable SMEs to pursue growth strategies and expand market reach.

Therefore, financial inclusion plays an important role in supporting SME development by improving access to financial resources, promoting financial stability, and enabling business growth. SMEs that benefit from financial inclusion are more likely to achieve higher levels of financial performance and long-term sustainability.

H2: Financial inclusion has a positive effect on SME performance.

2.3. Financial Behavior and SME Performance

Financial behavior refers to the way individuals manage financial resources through activities such as budgeting, saving, investing, and managing debt. In the context of SMEs, financial behavior reflects how business owners make financial decisions related to business operations, resource allocation, and financial planning. Effective financial behavior is essential for ensuring financial stability and improving business performance. SME owners who demonstrate responsible financial behavior are more likely to manage their business finances effectively and achieve sustainable business growth.

Financial behavior is closely related to financial literacy, financial inclusion, and financial decision-making. SME owners who possess good financial management habits are better able to allocate resources efficiently, control operational costs, and plan future investments. These practices enable SMEs to maintain healthy cash flow and reduce financial risks, which contributes to improved business performance. Additionally, positive financial behavior can enhance the effectiveness of financial services and financial technologies used by SMEs.

Behavioral finance theory suggests that financial decisions are influenced not only by economic factors but also by psychological and behavioral factors. SME owners often face financial decisions that involve uncertainty and risk, such as investment decisions, borrowing decisions, and financial planning. Entrepreneurs with better financial behavior are more likely to evaluate financial risks carefully and make informed financial decisions that support business sustainability.

Empirical evidence also highlights the importance of financial behavior in improving SME performance. Studies show that responsible financial behavior, including maintaining financial records, managing debt responsibly, and planning financial strategies, contributes to better financial outcomes for businesses. Furthermore, financial behavior can act as a mediating factor that enhances the effectiveness of financial inclusion and financial literacy in improving SME financial well-being and performance.

SME owners who demonstrate positive financial behavior are more likely to adopt financial technologies and utilize financial services effectively. For example, entrepreneurs who actively monitor their financial activities and maintain financial discipline can use digital financial platforms to improve financial management and optimize business operations. This synergy between financial behavior and financial technology adoption ultimately contributes to stronger business performance.

Therefore, financial behavior plays a critical role in determining how effectively SMEs utilize financial resources and financial services. SMEs with responsible financial behavior are

more capable of managing financial risks, improving financial decision-making, and achieving sustainable business performance.

H3: Financial behavior has a positive effect on SME performance.

3. Method

3.1. Research Design

This study employs a quantitative research approach to examine the impact of financial technology usage, financial inclusion, and financial behavior on SME performance. Quantitative research is appropriate for this study because it allows researchers to test hypotheses and analyze relationships among variables using statistical techniques. The study adopts an explanatory research design, which aims to explain the causal relationships between independent variables and the dependent variable. In this context, financial technology usage, financial inclusion, and financial behavior are treated as independent variables, while SME performance is the dependent variable. The explanatory design enables the researcher to determine the extent to which these variables influence the performance of small and medium enterprises.

3.2. Population and Sample

The population of this study consists of small and medium enterprises (SMEs) operating in Indonesia. SMEs are selected as the focus of this research because they represent a significant portion of economic activity and are increasingly adopting digital financial services. However, many SMEs still face challenges related to financial access, financial management, and digital technology adoption.

Due to the large size of the population, this study uses a sampling technique to obtain representative data. The sampling method used is purposive sampling, which is a non-probability sampling technique in which respondents are selected based on specific criteria relevant to the research objectives. The criteria for selecting respondents in this study include:

1. The respondent is the owner or manager of an SME.
2. The SME has been operating for at least one year.
3. The SME has used or is familiar with digital financial services such as mobile payments, digital banking, or online lending platforms.

A total of 150 SME owners and managers were selected as respondents in this study. This sample size is considered sufficient for quantitative analysis and hypothesis testing, particularly when using structural equation modeling or regression analysis.

3.3. Data Collection Method

The data used in this study are primary data collected directly from respondents through a structured questionnaire. The questionnaire is designed to measure the perceptions and experiences of SME owners regarding financial technology usage, financial inclusion, financial behavior, and SME performance. The questionnaire consists of two main sections. The first section collects demographic information about respondents, including business age, type of business, and number of employees. The second section contains statements related to the research variables.

The questionnaire uses a Likert scale to measure respondents' perceptions of each variable. The Likert scale ranges from 1 to 5, where:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

This measurement scale allows respondents to express their level of agreement with each statement and enables researchers to quantify attitudes and perceptions for statistical analysis.

3.4. Variable Measurement

This study includes four main variables: financial technology usage, financial inclusion, financial behavior, and SME performance. Each variable is measured using several indicators adapted from previous studies.

1. Financial Technology Usage

Financial technology usage refers to the extent to which SMEs utilize digital financial services in their business operations. Indicators used to measure this variable include:

- Use of digital payment systems
- Use of online lending or financing platforms
- Use of mobile banking or digital banking services
- Use of financial management applications

These indicators reflect how SMEs integrate digital financial tools into their business activities.

2. Financial Inclusion

Financial inclusion refers to the accessibility and availability of financial services for SMEs. Indicators used to measure financial inclusion include:

- Access to business loans from financial institutions
- Availability of savings and payment services
- Ease of accessing financial products
- Participation in formal financial systems

These indicators evaluate the extent to which SMEs can access and utilize formal financial services.

3. Financial Behavior

Financial behavior refers to the financial management practices of SME owners.

Indicators used to measure this variable include:

- Budget planning for business activities
- Monitoring and recording financial transactions
- Managing business expenses effectively
- Saving or reinvesting business profits

These indicators represent the financial decision-making practices and financial discipline of SME owners.

4. SME Performance

SME performance refers to the overall success and growth of SMEs in terms of financial and operational outcomes. Indicators used to measure SME performance include:

- Business revenue growth
- Profitability improvement
- Business expansion
- Operational efficiency

These indicators reflect the overall business performance and sustainability of SMEs.

3.5. Data Analysis Technique

The data collected from the questionnaire are analyzed using quantitative statistical methods. The analysis is conducted in several stages to ensure the reliability and validity of the research findings.

The first stage involves descriptive statistics, which are used to summarize the characteristics of respondents and provide an overview of the research variables. Descriptive statistics include mean values, standard deviations, and frequency distributions.

The second stage involves reliability and validity testing to ensure that the measurement instruments are appropriate for analyzing the research variables. Reliability testing is conducted using Cronbach's alpha to measure the internal consistency of the questionnaire items. A Cronbach's alpha value greater than 0.70 indicates that the measurement instrument is reliable. Validity testing is conducted using correlation analysis to determine whether each indicator accurately measures the intended variable.

The third stage involves hypothesis testing using multiple regression analysis. Multiple regression analysis is used to examine the influence of financial technology usage, financial inclusion, and financial behavior on SME performance. The regression model used in this study is expressed as follows:

$$\text{SME Performance} = \beta_0 + \beta_1(\text{Financial Technology Usage}) + \beta_2(\text{Financial Inclusion}) + \beta_3(\text{Financial Behavior}) + \varepsilon$$

Where:

β_0 = constant

β_1 – β_3 = regression coefficients

ε = error term

The significance of each independent variable is tested using t-tests, while the overall model significance is evaluated using the F-test. The coefficient of determination (R^2) is also calculated to determine the proportion of variance in SME performance explained by the independent variables.

Through this methodological approach, the study aims to provide empirical evidence regarding the influence of financial technology usage, financial inclusion, and financial behavior on SME performance. The findings are expected to contribute to the understanding of how digital financial services and financial management practices can support SME growth and sustainability in the modern digital economy.

4. Results and Discussion

This section presents the empirical results of the study examining the impact of financial technology usage, financial inclusion, and financial behavior on SME performance. The

analysis includes descriptive statistics, reliability and validity testing, correlation analysis, and multiple regression analysis. The results are presented in tables followed by brief interpretations.

4.1. Descriptive Statistics

Table 1 presents the descriptive statistics of the research variables, including the mean and standard deviation values.

Table 1. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Financial Technology Usage	150	2.10	4.90	3.85	0.63
Financial Inclusion	150	2.25	4.80	3.79	0.58
Financial Behavior	150	2.30	4.95	3.92	0.60
SME Performance	150	2.40	4.85	3.88	0.57

The descriptive statistics show that all variables have mean values above 3.70, indicating that respondents generally perceive financial technology usage, financial inclusion, and financial behavior to be relatively high among SMEs. Financial behavior has the highest mean value (3.92), suggesting that many SME owners demonstrate relatively good financial management practices. Meanwhile, SME performance also shows a high mean value (3.88), indicating that most businesses experience moderate to strong performance levels.

4.2. Reliability Test

Reliability testing was conducted using Cronbach’s Alpha to determine the internal consistency of the measurement instruments.

Table 2. Reliability Test

Variable	Number of Items	Cronbach’s Alpha	Result
Financial Technology Usage	4	0.87	Reliable
Financial Inclusion	4	0.84	Reliable
Financial Behavior	4	0.88	Reliable
SME Performance	4	0.86	Reliable

The reliability test results show that all variables have Cronbach’s Alpha values greater than 0.70. This indicates that the measurement instruments used in this study are reliable and have strong internal consistency. Therefore, the questionnaire items used to measure each variable are suitable for further statistical analysis.

4.3. Validity Test

The validity test was conducted using Pearson correlation analysis between each item and the total score of its respective variable.

Table 3. Validity Test

Variable	Item	Correlation Value	r-table	Result
Financial Technology Usage	FT1	0.71	0.160	Valid
	FT2	0.74	0.160	Valid
	FT3	0.76	0.160	Valid
	FT4	0.72	0.160	Valid
Financial Inclusion	FI1	0.70	0.160	Valid
	FI2	0.73	0.160	Valid
	FI3	0.75	0.160	Valid
	FI4	0.71	0.160	Valid
Financial Behavior	FB1	0.77	0.160	Valid
	FB2	0.79	0.160	Valid
	FB3	0.75	0.160	Valid
	FB4	0.74	0.160	Valid
SME Performance	SP1	0.72	0.160	Valid
	SP2	0.76	0.160	Valid
	SP3	0.73	0.160	Valid
	SP4	0.74	0.160	Valid

The validity test results indicate that all questionnaire items have correlation values higher than the r-table value (0.160). This confirms that all indicators used in the study are valid and effectively measure the intended constructs.

4.4. Correlation Analysis

Correlation analysis was conducted to examine the relationships among the research variables.

Table 4. Correlation Analysis

Variable	FTU	FI	FB	SMEP
Financial Technology Usage (FTU)	1			
Financial Inclusion (FI)	0.55	1		
Financial Behavior (FB)	0.49	0.52	1	
SME Performance (SMEP)	0.61	0.58	0.63	1

The correlation analysis shows positive relationships between all independent variables and SME performance. Financial behavior shows the strongest correlation with SME performance ($r = 0.63$), followed by financial technology usage ($r = 0.61$) and financial

inclusion ($r = 0.58$). These results indicate that improvements in financial technology usage, financial inclusion, and financial behavior are associated with higher SME performance.

4.5. Multiple Regression Analysis

Multiple regression analysis was conducted to examine the effect of financial technology usage, financial inclusion, and financial behavior on SME performance

Table 5. Regression Analysis

Variable	Beta Coefficient	t-value	Significance value)	(p- Result
Financial Technology Usage	0.31	4.12	0.000	Significant
Financial Inclusion	0.27	3.68	0.001	Significant
Financial Behavior	0.35	4.56	0.000	Significant
Constant	0.84	2.75	0.007	

Table 6. Model Summary

R	R ²	Adjusted R ²	F-value	Significance
0.74	0.55	0.54	59.21	0.000

The regression results indicate that financial technology usage, financial inclusion, and financial behavior all have positive and significant effects on SME performance. Financial behavior has the strongest influence on SME performance ($\beta = 0.35$), followed by financial technology usage ($\beta = 0.31$) and financial inclusion ($\beta = 0.27$).

The model summary shows that the R^2 value is 0.55, which means that 55% of the variation in SME performance can be explained by financial technology usage, financial inclusion, and financial behavior. The remaining 45% may be influenced by other factors not included in this study. Additionally, the F-test result is significant ($p < 0.05$), indicating that the overall regression model is statistically significant and suitable for explaining SME performance.

4.6. Discussion

This study aims to examine the impact of financial technology usage, financial inclusion, and financial behavior on SME performance. The results of the empirical analysis indicate that all three independent variables have a positive and significant effect on SME performance. These findings provide important insights into how digital financial services, access to financial systems, and responsible financial management practices contribute to the success and sustainability of small and medium enterprises.

The first hypothesis proposed that financial technology usage positively affects SME performance. The regression results confirm this hypothesis, indicating that financial technology adoption significantly improves SME performance. This finding suggests that SMEs that actively use digital financial services such as mobile payments, online lending

platforms, and digital banking systems tend to experience better business outcomes. Financial technology enables SMEs to perform financial transactions more efficiently, reduce operational costs, and improve access to financial resources. These advantages allow SMEs to manage their financial activities more effectively and enhance overall business performance.

The positive relationship between financial technology usage and SME performance can also be explained by the role of digital innovation in improving operational efficiency and financial management. Through fintech platforms, SME owners can easily track financial transactions, monitor cash flow, and access financial information in real time. This level of financial transparency supports better decision-making and allows business owners to respond quickly to market changes. Additionally, fintech solutions such as peer-to-peer lending and digital financing platforms provide alternative sources of funding for SMEs that may face difficulties obtaining loans from traditional financial institutions. By expanding access to financing, financial technology enables SMEs to invest in business development, expand production capacity, and improve service quality.

These findings are consistent with previous studies that emphasize the important role of financial technology in improving SME performance. Several studies have demonstrated that fintech adoption contributes to increased productivity, improved financial efficiency, and greater financial inclusion for SMEs. The integration of digital financial services into business operations allows SMEs to operate more competitively in an increasingly digitalized economy. Therefore, the adoption of financial technology can be considered an essential strategy for SMEs seeking to improve their competitiveness and long-term sustainability.

The second hypothesis examined the relationship between financial inclusion and SME performance. The results show that financial inclusion has a positive and significant effect on SME performance, supporting the second hypothesis. This finding indicates that SMEs with better access to financial services tend to achieve higher levels of business performance. Financial inclusion provides SMEs with opportunities to access various financial products and services, including loans, savings accounts, and digital payment systems. These financial services help SMEs manage their financial resources more effectively and support business growth.

The positive impact of financial inclusion on SME performance highlights the importance of integrating SMEs into the formal financial system. Access to financial services allows SMEs to obtain the capital necessary for business expansion, purchase equipment, hire employees, and improve production processes. In addition, financial inclusion helps SMEs maintain stable cash flow and manage financial risks more effectively. When SMEs have reliable access to financial services, they are better positioned to overcome financial constraints and pursue growth opportunities.

Furthermore, financial inclusion also plays a critical role in promoting financial stability and resilience among SMEs. SMEs that are connected to formal financial institutions often have access to financial advisory services, financial management tools, and financial education programs that can improve their financial capabilities. These resources help SME owners develop better financial strategies and make informed business decisions. The results of this study support previous research findings that emphasize the importance of financial inclusion as a key driver of SME development and economic growth.

The third hypothesis proposed that financial behavior positively influences SME performance. The results confirm this hypothesis, indicating that financial behavior has the strongest influence on SME performance among the variables examined in this study. This finding suggests that the financial management practices of SME owners play a crucial role in determining business success. SME owners who demonstrate responsible financial behavior—such as maintaining financial records, planning budgets, controlling expenses, and reinvesting profits—are more likely to achieve higher levels of business performance.

Financial behavior is an essential component of effective financial management because it reflects how entrepreneurs make financial decisions and manage financial resources. Good financial behavior enables SME owners to allocate resources efficiently, control operational costs, and maintain financial stability. These practices help businesses avoid financial problems and ensure that sufficient resources are available for business development and expansion.

The strong influence of financial behavior on SME performance also highlights the importance of financial literacy and financial awareness among entrepreneurs. SME owners who possess strong financial management skills are better equipped to evaluate investment opportunities, manage financial risks, and adapt to changes in the business environment. In addition, positive financial behavior encourages SME owners to utilize financial technologies and financial services more effectively, thereby strengthening the relationship between financial inclusion, fintech adoption, and business performance.

Another important implication of this finding is that technological adoption alone may not be sufficient to improve SME performance without proper financial management practices. Although fintech and financial inclusion provide access to financial tools and resources, the effectiveness of these resources largely depends on how they are utilized by SME owners. Entrepreneurs who demonstrate disciplined financial behavior are more likely to benefit from digital financial services and financial inclusion initiatives. Therefore, improving financial behavior among SME owners is essential for maximizing the benefits of financial technology and financial inclusion.

Overall, the findings of this study demonstrate that financial technology usage, financial inclusion, and financial behavior are interconnected factors that collectively contribute to SME performance. Financial technology provides digital tools that facilitate financial transactions and access to financing, financial inclusion ensures that SMEs can access formal financial services, and financial behavior determines how effectively these resources are managed and utilized. When these three factors work together, SMEs can improve operational efficiency, strengthen financial stability, and achieve sustainable business growth.

The results of this study also provide several practical implications for policymakers, financial institutions, and SME development programs. Governments and financial institutions should continue to promote digital financial innovation and expand financial inclusion initiatives that support SME development. Efforts should also be made to improve financial literacy and financial management skills among SME owners through training programs, workshops, and educational initiatives. By strengthening financial capabilities and promoting responsible financial behavior, SMEs can better utilize financial technology and financial services to enhance business performance.

In conclusion, the discussion of the results highlights the significant role of financial technology usage, financial inclusion, and financial behavior in improving SME performance.

These findings emphasize the importance of integrating digital financial solutions, expanding access to financial services, and promoting responsible financial management practices among SME owners. By addressing these factors, SMEs can improve their competitiveness and resilience in an increasingly dynamic and digitalized economic environment.

5. Conclusion

This study examined the impact of financial technology usage, financial inclusion, and financial behavior on the performance of small and medium enterprises (SMEs). The empirical findings indicate that all three variables have a positive and significant influence on SME performance. Financial technology usage enhances business efficiency by enabling SMEs to conduct faster transactions, access alternative financing, and improve financial management through digital platforms. Financial inclusion also plays a crucial role by providing SMEs with greater access to formal financial services, such as credit, savings, and payment systems, which support business expansion and operational stability. Among the variables examined, financial behavior demonstrates the strongest influence on SME performance, highlighting the importance of responsible financial management practices among SME owners. Effective budgeting, financial planning, and disciplined financial decision-making allow entrepreneurs to utilize financial resources more efficiently and sustain business growth. Overall, the findings suggest that the integration of digital financial technologies, broader financial access, and improved financial behavior collectively contribute to enhancing SME performance. Therefore, policymakers, financial institutions, and SME development programs should promote fintech adoption, strengthen financial inclusion initiatives, and improve financial literacy among SME owners to support sustainable SME development in the digital economy.

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