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FROM FINTECH TO COMPETITIVENESS: FINANCIAL SUSTAINABILITY PERFORMANCE OF MSMEs IN THE DIGITAL ERA

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Abstract

The main objective of this study is to analyze the role of competitiveness as a mediator in the relationship between financial technology (fintech) adoption and financial sustainability performance in Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. Fintech provides easy access to digital financial services that positively impact productivity and transaction efficiency in MSMEs. This study uses the Practice-Based View (PBV) approach to understand how MSMEs can adopt fintech to improve their competitiveness and financial sustainability performance. Data was collected from 190 respondents who have adopted fintech using purposive sampling and snowball sampling techniques. This research uses the Partial Least Squares - Structural Equation Modeling (PLS-SEM) method through SmartPLS 4.0. The results showed that fintech significantly affects competitiveness and financial sustainability performance in MSMEs, and competitiveness substantially mediates the relationship between the two. This study confirms that using fintech as a strategic practice can strengthen competitiveness and thus encourage financial sustainability performance in the long term.

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INTRODUCTION

Sustainability issues in this era of digitalization have led to rapid technological innovation. Several advances have been developed to address these sustainability challenges in recent years. One of them is financial technology (fintech), a transformation in the financial sector that shows the synergy between technology and sustainability practices (Atayah et al., 2024; Cruz & Pascual, 2023). Fintech refers to using technological advances to provide financial services to customers more easily and efficiently (Dwivedi et al., 2021).

In Indonesia, the growth of fintech is experiencing rapid development due to the increase in internet access and the widespread use of smartphones. Based on data from the Otoritas Jasa Keuangan (OJK), the use of fintech is increasing every year, indicating the high public interest in digital-based financial services. In 2023, OJK noted that total transactions through fintech platforms reached more than Rp. 300 trillion, a significant increase from the previous year. Micro, Small, and Medium Enterprises (MSMEs) widely use digital transactions.

The presence of MSMEs creates flexibility that allows them to adjust quickly to market demands and can strengthen economic resilience (Gölgeci et al., 2020). However, MSMEs also face financial challenges that require adaptation to technological advances in the financial sector and the cultivation of sustainable practices (Abisuga-Oyekunle et al., 2020). In addition, MSMEs can also implement innovation strategies such as *fintech* adoption to support sustainable development (Bogers et al., 2018).

Adopting fintech opens access to various financial tools such as banking and digital payment platforms (Hollanders, 2020). Studies

from Bank Indonesia (2020) show that digitization has increased productivity and efficiency in MSMEs. In 2021, around 89% of QRIS users were MSME actors. Applying fintech such as QRIS can help MSMEs transact quickly and efficiently. This digitalization carried out by Bank Indonesia supports MSMEs in expanding domestic and international markets and taking advantage of e-commerce. Not only that, but adopting fintech also integrates with sustainability performance aspects.

Integrating fintech adoption with blockchain technology and big data analysis further strengthens MSME operations in this modern digitalization transformation (Hassan et al., 2023). Fintech, which provides access to digital financial services and simplifies financial management, plays a vital role in accelerating the use of technology by MSMEs. With blockchain, financial transactions through fintech platforms become more secure and transparent, helping MSMEs improve resource allocation and reduce the risk of fraud in financial transactions (Rehman et al., 2022).

Blockchain technology has the potential to provide solutions to sustainability issues, although it needs to be thoroughly evaluated by taking into account practical, ethical, and social aspects. Big data analysis allows MSMEs to utilize transaction data from fintech services to improve operational efficiency and support informed decision-making. Adopting fintech in collaboration with big data will make MSMEs optimize their cash flow and business strategies, thus driving efficiency and long-term sustainability. Applying this technology will also create a more innovative and responsive ecosystem, which is essential for competitiveness in the industrial era 4.0 (Patidar et al., 2023).

The use of technology in the industrial era 4.0 can increase the competitiveness of companies (Nasiri et al., 2020). Research Seyedghorban, et al. (2020) says that technology can increase transparency and more flexible relationships in a business to improve performance and shorten lead times. Competitiveness and sustainability also have a close relationship, especially in MSMEs, which can encourage innovation and make companies different from their competitors (Yun et al., 2020). Sustainability practices can improve operational efficiency and strengthen brand image in the eyes of customers and the market.

Existing research shows gaps in understanding the relationship between fintech adoption, competitiveness, and financial sustainability performance in Micro, Small, and Medium Enterprises (MSMEs). However, some previous studies have focused on strategy and environmental orientation (Siddik et al., 2023). There is still limited research discussing the impact of fintech adoption on MSMEs in the manufacturing sector and the critical role of finance in enhancing sustainable competitiveness (Khan et al., 2023). This study aims to explain the relationship between fintech adoption, competitiveness as mediation, and financial sustainability performance in Micro, Small, and Medium Enterprises (MSMEs).

This study uses the Practice Based View (PBV) approach as a guide to explore how technology can improve financial sustainability performance. PBV helps to understand how actions can be widely adopted to influence performance (Bromiley & Rau, 2014). Unlike the Resource-Based View (RBV), which emphasizes competitive advantage through unique resources, PBV views performance as the result of widely recognized activities other companies can perform.

PBV emphasizes how practices that many companies can adopt can influence company performance. In sustainability, PBV is particularly useful for analyzing performance outcomes, especially in Micro, Small, and Medium Enterprises (MSMEs). This method facilitates companies in adopting new technologies such as fintech, thereby providing an appropriate approach to examine how companies can enhance sustainability (Rehman et al., 2022). This aligns with the primary objective of this study, which is to understand the relationship between fintech adoption, competitiveness, and financial sustainability performance.

This study focuses on the role of competitiveness as a mediating variable in the relationship between fintech adoption and financial sustainability performance, which remains underexplored, particularly among manufacturing-based MSMEs. Distinct from previous studies that examine technology, competitiveness, and sustainability in isolation, this research offers an integrative perspective by explaining how fintech adopyion enchances financial efficiency and fosters competitive advantage, contributing to environmentally sustainable practices within MSMEs.

It further provides new insights by demonstratingthat fintech adoption can indirectly improve financial sustainability performance through competitiveness. Thus, this study fills the gap of previous research by examining how fintech adoption affects financial sustainability performance with the intermediary of competitiveness in MSMEs. The PBV framework underpins the research to help deepen the understanding of how fintech adoption affects competitive advantage and financial sustainability performance through better access to finance.

Hypotheses Development

Fintech and Financial Sustainability Performance (FSP)

Fintech, which refers to the application of technology to improve and transform financial services, has gained attention for its ability to increase access to finance, simplify processes, and promote transparency (Qureshi & Siddiqui, 2021). Companies that experience the development of innovative digital financial ecosystems through fintech play an essential role in advancing finance, increasing inclusiveness, stability, and integrity, which ultimately contribute to sustainable development (Zhang-Zhang et al., 2020).

Although the progress of fintech has been significant, there are still shortcomings especially regarding the long-term impact on financial stability and sustainability, namely empirical evidence on its effect on economic development and inequality especially in developing countries is still limited, and the ethical dimensions of fintech such as privacy and data security still need further research (Vergara & Agudo, 2021). Therefore, there is growing interest in examining the relationship between fintech adoption and sustainability financial performance. Several studies have also shown that fintech adoption positively impacts financial sustainability performance (Zhou et al., 2022).

Referring to the existing research gap and the complex interaction between fintech practices and financial sustainability, the current study aims to investigate the impact of fintech on financial sustainability performance in MSMEs with a focus on the mediating role of competitiveness. Previous research has shown fintech's positive influence on organizations' financial sustainability performance (Dwivedi et al., 2021; Siddik et al., 2023; Yan et al., 2022). Based on the PBV approach, organizations that can mimic fintech adoption in the context of sustainability will help analyze performance outcomes in MSMEs. Therefore, by adopting fintech, this research expects a significant positive impact on Financial Sustainability Performance (FSP) in MSMEs. Based on this understanding, the hypothesis is proposed as follows.

H1: Fintech significantly affects Financial Sustainability Performance (FSP) in MSMEs.

Fintech and Competitiveness

The application of fintech can optimize traditional business models by reducing operational costs on services, increasing efficiency, strengthening risk management and creating a more customer-focused approach (Wang et al., 2021). Therefore, fintech innovation is an essential component of business strategy for MSME actors. Using this fintech innovation strategically has a positive impact on organizations, driving an increase in competitiveness and current market performance (Ahn & Kim, 2019), so technological developments play an important role in increasing competitiveness through improved customer service. Competitiveness can be defined as the ability of a business to survive, develop, and generate profits (Dwivedi et al., 2021).

Kluyver and Pearce, (2015) said that competitiveness includes all efforts made by a business entity to compete with other businesses. Specifically, the competitiveness of MSMEs refers to the added value offered to customers that makes them choose the products or services of these MSMEs over those of their competitors. With technological innovations such as fintech, MSMEs can increase operational efficiency and reduce business costs, increasing their competitiveness. This encourages MSMEs to provide products and services that meet customer needs. Previous research also shows that if fintech adoption is managed strategically, it will increase efficiency and significantly increase organizations' results (Momaya, 2018). Using fintech has been shown to improve profitability, financial innovation, and strengthen risk control.

Technological innovation through fintech can be essential in increasing business competitiveness by improving customer service. The adoption of fintech on competitiveness has a positive influence on MSMEs, because fintech allows MSMEs to access a variety of more efficient financial tools, such as payment platforms, making MSMEs more competitive (Hidayat & Alsolamy, 2023). Gunawan et al. (2024) also said that fintech is essential to competitiveness through efficiency, market expansion, and customer experience. Based on the PBV approach, when a company integrates the latest technology, such as fintech, it will increase productivity and be more competitive. In line with this study's objectives, the study examines the impact of the application of fintech on competitiveness in MSMEs. Based on this understanding, the hypothesis is proposed as follows.

H2: Fintech significantly affects competitiveness in MSMEs.

Competitiveness and Financial Sustainability Performance (FSP)

Competitiveness has a highly significant influence on financial sustainability performance (Lopez et al., 2022). Businesses with strong competitiveness can allocate more resources to improve sustainability, such as green product

development and ethical business practices that enhance reputation. Therefore, competitiveness can drive innovation and make the business adapt to market and environmental changes. Previous research confirms that competitiveness drives financial sustainability performance (Yun et al., 2020). Competitiveness plays a role in developing innovative solutions for social and economic sustainability. Developing environmentally friendly technologies contributes to the positive image of the business and ultimately supports financial sustainability. This research also explains that competitiveness and sustainability are not opposite concepts but are interrelated and directly related, especially in MSMEs.

However, research conducted by Dwivedi et al. (2021) said that competitiveness and sustainability do not have a direct two-way relationship because they are complex and consist of various dimensions. The research conducted by Murinde et al. (2022) said that competitiveness is essential in improving operational efficiency, innovation, and adaptation to market changes, making competitiveness support environmentally friendly, sustainable business practices. Thus, the PBV approach will explain how a business sees competitiveness as a form of strategy and a practice that promotes long-term sustainability. So, this PBV approach provides a framework to understand that competitiveness driven by strategic practices supports financial sustainability performance in MSMEs that must innovate and adapt to remain relevant in the marketplace. Based on this understanding, the hypothesis is proposed as follows.

H3: Competitiveness significantly affects Financial Sustainability Performance (FSP) in MSMEs.

Mediating Role of Competitiveness

The use of fintech strengthens a company's ability to manage risks and improve customer orientation, which has a positive impact on the trust and competitiveness of the company (Wang et al., 2021). Implementing fintech is considered an essential innovative strategy for businesses (Dwivedi et al., 2021), because it reduces operational costs and improves overall efficiency and performance (Glavina et al., 2020). The presence of technology such as fintech will facilitate financial transactions, increase user convenience, foster loyalty, and increase competitiveness. Fintech adoption contributes to improving the competitiveness of companies, but the level of competitiveness generated depends on how the fintech adoption process is managed (Murinde et al., 2022).

The gradual or immediate adoption of fintech helps simplify transactions, lower operational costs, attract more customers, and ultimately strengthen the competitiveness of firms, so the concepts of competitiveness and sustainability are of global concern (Dwivedi et al., 2021). Sustainability refers to the balanced use of resources so that future generations can enjoy the same resources as current generations. Achieving sustainability requires efforts covering three main aspects, environmental, economic, and social, to ensure the organization's continuity. On the other hand, competitiveness describes healthy competition in the business world. Research conducted by Albats et al. (2023) said that eco-innovation positively impacts competitive advantage and sustainable financial performance.

Competitiveness is a significant variable in the relationship between fintech adoption and sustainability performance in MSMEs (Hidayat & Alsolamy, 2023). Based on the discussion above, this study states that competitiveness is an intermediary between fintech adoption and sustainability financial performance, thus forming a relationship between the two. Based on the PBV approach, fintech adoption can be applied by companies so that the results will impact competitiveness, and the level of competitiveness in a business can affect how well MSMEs utilize fintech adoption to improve their business sustainability. Thus, the hypothesis can be proposed as follows.

H4: Competitiveness mediates the relationship between fintech and Financial Sustainability Performance (FSP).

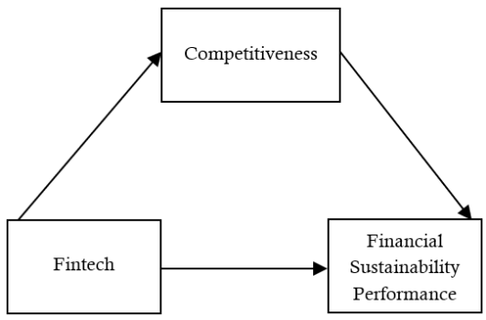

Figure 1. Research Framework

METHOD

Data collection was conducted using a quantitative approach through surveys. The primary data was collected through questionnaires containing questions the indicators had prepared. The questionnaires were distributed online using Google Forms and social media such as Instagram, WhatsApp, X, and Facebook. The research population consists of MSMEs in Indonesia that have adopted fintech. This study uses a non-probability sampling method, a sampling method where each member of the population does not have an equal chance of being selected as part of the sample. The non-probability sampling techniques selected are purposive sampling and snowball sampling.

Purposive sampling is a technique in which researchers select samples based on specific criteria. The sample criteria in this study were MSME actors in the manufacturing sector who had adopted fintech (payment methods using QRIS and other payments such as e-wallets and mobile banking). Meanwhile, the snowball sampling technique is a method where the researcher asks individuals who are already part of the sample to recommend others who meet the same criteria. The sample size was determined using the approach proposed by (Hair et al., 2013), which is a minimum of 5 times the number of indicators and a maximum of 10 times the number of indicators. In this study, the researcher used a maximum value of 10 times with 19 indicators, resulting in 190 data points.

This study used a questionnaire to collect data, and respondents answered using a Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree." In this study, the PLS-SEM method was used to analyze the data, as it is a statistical method that explores the relationships between variables in a research model, aiming to test theory and predict results based on data. The data were processed using Smart-PLS 4.0. From the collected data, convergent and discriminant validity tests and reliability tests were conducted. Convergent validity was tested using outer loadings and Average Variance Extracted (AVE) to ensure that each indicator truly reflects the variable being measured, where indicators with outer loading values > 0.7 and AVE values > 0.5 are considered valid (Hair, et al., 2021). Meanwhile, the discriminant validity test used the Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio (HTMT) methods.

Reliability testing was conducted using composite reliability and Cronbach's Alpha values, where values above 0.7 indicate a good level of reliability of the measuring instrument. After that, PLS-SEM analysis was performed, starting with an evaluation of the measurement model to ensure that all indicators met the validity and reliability requirements. Once the measurement model was validated, structural model analysis was conducted to test the relationships between variables and the proposed hypotheses. Hypothesis testing was performed using the bootstrapping method in Smart-PLS 4.0. The significance of the relationships between variables was tested based on t-values and p-values.

RESULT AND DISCUSSION

Respondent Characteristics

Respondents in this study are MSME actors with diverse backgrounds. Based on Table 1, it can be seen from the gender category that women are dominant, as much as 72.63%, which shows that women play an essential role in running MSMEs. Then, based on age, the majority of respondents were aged 17-25 years, as much as 45.79%, then the second level was dominated by ages 26-35 years at 28.42%, which reflects that young people and productive age-run MSME actors. In terms of education, most of them are in senior high school, as many as 43.68%; this shows that MSME actors come from secondary education, not only that 35.79% come from bachelor education so that they have a deeper understanding of fintech adoption. Meanwhile, of all respondents, many have been running a business for 1-5 years at 53.16% with various types of businesses, dominated by the food and beverage business type at 66.31%, which is an easy choice with high demand. Furthermore, in terms of income, most MSMEs earned an income of Rp.3,000,000 - Rp. 5,000,000 at 52.63%. Finally, business locations are spread across various regions, with dominance in Java Island at 38.95% and Sumatera Island at 22.63%.

Table 1. Respondent Characteristics

	Category	Frequency	Percentage (%)
Gender	Woman	138	72.63
	Man	52	27.37
	Amount	190	100
Age	17 - 25 years	87	45.79
	26 - 35 years	54	28.42
	36 - 45 years	33	17.37
	> 45 years	16	8.42
	Amount	190	100
Last Education	Elemenntary school	0	0
	Junior high school	7	3.68

	Senior high school	83	43.68
	Diploma	25	13.16
	Bachelor	68	35.79
	Postgraduate	7	3.68
	Amount	190	100
Long Business Time	< 1 years	46	24.21
	1 – 5 years	101	53.16
	5 – 10 years	31	16.32
	>10 years	12	6.32
	Amount	190	100
Type of Business	Food and beverage	126	66.31
	Fashion	21	11.05
	Crafts	25	13.16
	Groceries	9	4.73
	Other	9	4.73
	Amount	190	100
Montly Income	Rp3,000,000 – Rp5,000,000	100	52.63
	Rp5,000,001 – Rp8,000,000	45	23.58
	Rp8,000,001 – Rp10,000,000	26	13.68
	>Rp10,000,000	19	10
	Amount	190	100
Business Location (Island)	Sumatera	43	22.63
	Jawa	74	38.95
	Sulawesi	15	7.89
	Kalimantan	18	9.47
	Maluku	12	6.32
	Papua	7	3.68
	Nusa Tenggara dan Bali	18	9.47
	Amount	190	100

Validity and Reliability Test

Table 2. Convergent Validity and Reliability Test Result

Variable	Code	Outer Loading	AVE	Composite Realibility	Cronbach's Alpha
Competitiveness	DS1	0.777	0.741	0.934	0.910
	DS2	0.774			
	DS3	0.949			
	DS4	0.881			
	DS5	0.937			
Fintech	*FINTECH*1	0.856	0.706	0.935	0.917
	*FINTECH*2	0.802			
	*FINTECH*3	0.890			
	*FINTECH*4	0.864			
	*FINTECH*5	0.834			
	*FINTECH*6	0.792			

Financial Sustainability Performance	FSP1	0.887	0.748	0.960	0.952
	FSP2	0.852			
	FSP3	0.892			
	FSP4	0.842			
	FSP5	0.892			
	FSP6	0.852			
	FSP7	0.850			
	FSP8	0.859			

The convergent validity test was carried out by looking at the outer loadings value in Table 2, which shows that all variable indicators are valid because they have a value above 0.7. These results mean that all indicators used in this study can be used and have a strong correlation between factors and measuring variables. Then, when viewed from the AVE value, it also shows valid results because it has a value > 0.5, so each construct indicator accurately and consistently measures the construct that represents it. Furthermore, the reliability test results in Table 2 using Cronbach's Alpha and composite reliability criteria show > 0.7, meaning that the constructs used in the study are reliable. The discriminant validity test in Table 3 with the Fornell-larcker value shows that the AVE value is greater than the correlation between variables; this meets the Fornell-larcker requirements and Table 4 with the resulting Heterotrait-Monotrait (HTMT) value < 0.9 so that the results of these two tests indicate that discriminant validity is met (Hair, et al., 2021).

Table 3. Fornell-Larcker Result

Construct	DS	FINTECH	FSP
DS	0.861		
FINTECH	0.305	0.840	
FSP	0.353	0.273	0.865

Table 4. Heterotrait-Monotrait (HTMT) Result

Construct	DS	FINTECH	FSP
DS			
FINTECH	0.327		
FSP	0.368	0.279	

Structural Model Analysis

Table 5. R-square Result

Construct	R-square
DS	0.093
FSP	0.154

Table 5 is an analysis table for the structural model, which aims to measure the magnitude of the influence between latent variables. This analysis used the R-squared (R^2) value to see how well the independent variables explain the variance of the dependent variables in the model. Table 5 shows that the competitiveness variable has 9.3% of the variance in the dependent variable explained by the independent variable, namely the fintech variable. Meanwhile, the financial sustainability performance variable is influenced by 15.4% by the independent variable, while other factors influence 84.6%. This means that the model in this study can be considered weak.

Hypothesis Testing

Direct Effect Test

Table 6. Direct Effect Test Result

	Original Sample (O)	Standard Deviation (STDEV)	T-value	P-value	Conclusion
FINTECH → FSP (H1)	0.182	0.066	2.743	0.006	Significant
FINTECH → DS (H2)	0.305	0.073	4.186	0.000	Significant
DS → FSP (H3)	0.297	0.058	5.143	0.000	Significant

In testing direct effects, the hypothesis is accepted if the t-value is >1.65 and the p-value is <0.05 with a tolerance level of 5% (Hair, et al., 2021). The results of hypothesis testing that have been carried out in Table 6 show that hypothesis 1, namely fintech, has a significant effect on financial sustainability performance in MSMEs with a t-value of 2.743 and a p-value of 0.006, so hypothesis 1 is accepted. Then, for hypothesis 2, the effect of fintech on competitiveness significantly impacts MSMEs because the t-value is 4.186, which is >1.65, and the p-value is 0.000 <0.05, meaning that hypothesis 2 is accepted. Finally, hypothesis 3 shows that competitiveness significantly affects financial sustainability performance in MSMEs with a t-value of 5,143 and a p-value of 0.000, so hypothesis 3 is accepted.

Indirect Effect Test

Table 7. Indirect Effect Test Result

	Original Sample (O)	Standard Deviation (STDEV)	T-value	P-value	Conclusion
FINTECH → DS → FSP (H4)	0.091	0.026	3.538	0.000	Significant

The indirect effect test or test conducted to see the effect of mediating variables in this study aims to evaluate the role of competitiveness as a mediator in the relationship between fintech and financial sustainability performance. Table 7 shows the results of the indirect effect test; from these results, competitiveness as a mediating variable has a significant effect with a t-value of 3.538 and a p-value of 0.000, meaning that competitiveness partially mediates the relationship between fintech and financial sustainability performance because fintech as an independent variable has a significant direct effect on financial sustainability performance as the dependent variable even though competitiveness also acts as an intermediary in the relationship between the two so that hypothesis 4 is accepted.

DISCUSSION

Financial Technology (fintech) and Financial Sustainability Performance (FSP)

Financial technology, often called fintech, represents an innovation in financial services that leverages digital technology to enhance financial transaction services. In Micro, Small, and Medium Enterprises (MSMEs), fintech plays a crucial role by providing more flexible financial transaction options. This study's findings indicate that fintech significantly impacts the financial sustainability performance of MSMEs.When an MSME adopts fintech in its business, the financial sustainability performance of the business will also be affected. This means that fintech services in the financial activities of MSMEs can improve operational efficiency and make it easier for customers to conduct financial transactions. Furthermore, a study by (Yan et al., 2022) shows that fintech adoption not only improves efficiency and innovation but also has the potential to enhance overall financial sustainability performance. The findings of this study also support previous research stating that fintech influences the financial sustainability performance of a company or business (Udeagha & Ngepah, 2023)

Fintech services adopted by MSMEs provide efficiency, enabling the businesses they manage to maintain financial stability and remain adaptive to ongoing changes. This condition is a key factor in creating a sustainable business where MSMEs can survive in the short term and continue growing, innovating, and meeting customer needs. Thus, integrating fintech becomes a relevant sustainability strategy in promoting inclusive and resilient microeconomic growth in the digital era. Furthermore, Zhou et al. (2022) stated that fintech supports improving financial sustainability performance through operational efficiency and ease of transactions. This aligns with the increasing recommendation to adopt technological innovations to enhance business sustainability practices (Siddik et al., 2023). The findings of this study are also consistent with the Practice Based View (PBV) approach, which emphasizes the importance of organizational practices that can be adopted and influence business performance. Using fintech by MSMEs represents a practice that contributes to financial sustainability performance. Through fintech, MSMEs can improve the efficiency of their financial services in the long term.

Financial Technology (fintech) and Competitiveness

Findings from the research conducted indicate that fintech significantly influences competitiveness in MSMEs. Operational efficiency resulting from implementing fintech in

MSMEs in digital payment processes provides a competitive advantage because MSMEs can respond to market needs more quickly and improve customer service. Similar findings by Agyabeng & Tang, (2021) also reinforce that digital transformation through the adoption of fintech drives operational excellence and market adaptation, which are essential dimensions of SME competitiveness. Thus, fintech expands market reach through digital ecosystems, strengthening their competitive position. These findings align with previous research by Dwivedi et al. (2021), which showed that fintech adoption can enhance operational efficiency and flexibility for small businesses facing competition. Implementing fintech can also strengthen competitiveness through innovation, digitalization, and improved efficiency of financial services for a company. (Glavina et al., 2020; Gunawan et al., 2024). This aligns with the PBV approach, which views fintech as a strategic and relevant practice for business needs, serving as a competitive advantage for SMEs.

Competitiveness and Financial Sustainability Performance (FSP)

The results of the study show that competitiveness has a significant effect on the financial sustainability performance of MSMEs. This means that the higher the competitiveness of MSMEs through innovative business practices and quality services, the stronger their financial sustainability performance will be. However, this finding contradicts previous research by Dwivedi et al., (2021), which stated that competitiveness and financial sustainability performance do not have a directly reciprocal relationship due to their complex nature. In contrast, the findings of this study explain that competitiveness can indeed have a two-way direct relationship, as strong competitiveness enables MSMEs to better navigate market dynamics, optimize operational costs, and retain customers, factors that positively impact long-term profitability. This study supports previous research by Lopez et al., (2022), which found that competitiveness significantly influences financial sustainability performance. It also aligns with the research by Murinde et al., (2022), which emphasized that strong competitiveness can enhance the image of a business in the eyes of consumers, thereby ensuring business continuity in the long run. Strengthening competitive positioning, in turn, supports financial sustainability performance. These findings are consistent with the Practice-Based View (PBV) approach, which emphasizes that competitive advantage can be achieved through effective business practices that offer tangible benefits, particularly financial sustainability performance.

Mediating Role of Competitiveness

The study shows that competitiveness has a significant effect as a mediating variable. Competitiveness partially mediates the relationship between fintech and the financial sustainability performance of MSMEs. This means that fintech still has a substantial direct influence on financial sustainability performance but also indirectly affects financial sustainability performance through competitiveness. This illustrates that adopting fintech enables MSMEs to improve efficiency and innovation, which strengthens their competitiveness. Murinde et al. (2022) stated that competitiveness is an intermediary linking fintech to financial sustainability performance. MSMEs that effectively utilize fintech can enhance their competitiveness, and with more substantial competitiveness, they can better manage their financial sustainability performance. This is supported by previous research, which found that competitiveness plays a mediating role in the relationship between fintech and competitive advantage, thereby positively impacting financial sustainability performance (Hidayat & Alsolamy, 2023). A similar finding by Albats et al. (2023) also emphasizes that fintech adoption drives increased competitiveness, making MSMEs more adaptive and supporting their financial sustainability performance. This study aligns with the Practice-Based View (PBV) approach, which emphasizes organizational practices that can be adopted. In this context, adopting fintech is a strategic practice that optimizes competitiveness and continuously enhances financial sustainability performance.

CONCLUSION AND RECOMMENDATION

Based on the results of hypothesis testing and the previous discussion, fintech significantly influences financial sustainability performance. Furthermore, fintech also substantially affects the competitiveness of MSMEs. The findings also reveal that competitiveness significantly influences financial sustainability performance. Finally, competitiveness mediates the relationship between fintech and financial sustainability performance. These findings support the Practice Based View (PBV) approach, which emphasizes how certain practices can be adopted and, through such adoption, create competitive advantages that positively influence business performance. This study contributes to expanding the literature on the role of competitiveness as mediator linking fintech adoption and financial sustainability performance in MSMEs. This encourages MSMEs to adopt fintech to strengthen their businesses.

Although this study provides both theoretical and practical contributions, it also has certain limitations. First, when collecting data for this study, there was no mention of the types of payment methods used by MSMEs, whether QRIS, e-wallets such as DANA, OVO, GoPay, etc., or m-banking. Therefore, future studies should include the types payment methods used to specifically identify which digital payments are widely used by MSMEs in Indonesia. Another limitation lies in the variables used. This study only included fintech and competitiveness, which may not fully represent all factors influencing financial sustainability performance, resulting in a relatively weak research model. Future research could include additional variables such as digital financial literacy and innovation capacity. Furthermore, based on the research result, MSMEs are dominated by micro businesses, so it is recommended that future research involve small and medium-sized businesses in balanced manner to represent MSMEs as whole.

REFERENCES

Abisuga-Oyekunle, O. A., Patra, S. K., & Muchie, M. (2020). SMEs in sustainable development: Their role in poverty reduction and employment generation in sub-Saharan Africa. *African Journal of Science, Technology, Innovation and Development*, *12*(4), 405–419.

Agyabeng-Mensah, Y., & Tang, L. (2021). The relationship among green human capital, green logistics practices, green competitiveness, social performance and financial performance. *Journal of Manufacturing Technology Management*, *32*(7), 1377–1398.

Ahn, S., & Kim, J. (2019). The effect of managerial characterristics on the performance of technology-baseed start-ups in Korea. *Managing Technology for Inclusive and Sustainable Growth - 28th International Conference for the International Association of Management of Technology, IAMOT 2019*, *14*(1), 327–340.

Albats, E., Podmetina, D., & Vanhaverbeke, W. (2023). Open innovation in SMEs: A process view towards business model innovation. *Journal of Small Business Management*, *61*(6), 2519–2560.

Atayah, O. F., Najaf, K., Ali, M. H., & Marashdeh, H. (2024). Sustainability, market performance and FinTech firms. *Meditari Accountancy Research*, *32*(2), 317–345.

Bank Indonesia. (2020). Transformasi UMKM Untuk Pertumbuhan Ekonomi Yang Inklusif. *Laporan Perekonomian Indonesia, Bank Indonesia*, 1–18.

Bogers, M., Chesbrough, H., & Moedas, C. (2018). Open innovation: Research, practices, and policies. *California Management Review*, *60*(2), 5–16.

Bromiley, P., & Rau, D. (2014). TOWARDS A PRACTICE-BASED VIEW OF STRATEGY. *Strategic Management Journal*.

Cruz Rambaud, S., & López Pascual, J. (2023). Insurtech, Proptech, and Fintech Environment: Sustainability, Global Trends and Opportunities. *Sustainability (Switzerland)*, *15*(12), 10–12.

Dwivedi, P., Alabdooli, J. I., & Dwivedi, R. (2021). Role of FinTech Adoption for Competitiveness and Performance of the Bank: A Study of Banking Industry in UAE. *International Journal of Global Business and Competitiveness*, *16*(2), 130–138.

Glavina, S. G., Aidrus, I. A., & Trusova, A. A. (2020). *Assessment of the Competitiveness of Iplementation of Ilamic Financial Technologies*. *489*(Icdatmi), 191–197.

Gölgeci, I., Arslan, A., Dikova, D., & Gligor, D. M. (2020). Resilient agility in volatile economies: institutional and organizational antecedents. *Journal of Organizational Change Management*, *33*(1), 100–113.

Gunawan, I., Handayani, W., & Hariyana, N. (2024). Optimizing Lombok ' S Pearl Industry : The Role Of Social Media And Fintech In Enhancing Sme Business Performance Through © *2024 Universitas Negeri Semarang*. *13*(4), 396–408.

Hair, Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). Review of Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook. In *Structural Equation Modeling: A Multidisciplinary Journal* (Vol. 30, Issue 1).

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance. *Long Range Planning*, *46*(1–2), 1–12.

Hassan, N. M., Khan, S. A. R., Ashraf, M. U., & Sheikh, A. A. (2023). Interconnection between the role of blockchain technologies, supply chain integration, and circular economy: A case of small and medium-sized enterprises in Pakistan. *Science Progress*, *106*(3), 1–22.

Hidayat-ur-Rehman, I., & Alsolamy, M. (2023). A SEM-ANN analysis to examine sustainable performance in SMEs: The moderating role of transformational leadership. *Journal of Open Innovation: Technology, Market, and Complexity*, *9*(4), 100166.

Hollanders, M., Marc, M. . (2020). Payment Aspects of Financial Inclusion. In *Payment Aspects of Financial Inclusion* (Issue April).

Khan, S. A. R., Ahmad, Z., Sheikh, A. A., & Yu, Z. (2023). Green technology adoption paving the way toward sustainable performance in circular economy: a case of Pakistani small and medium enterprises. *International Journal of Innovation Science*, *March*.

Kluyver, C. A. de, & Pearce, J. A. (2015). *Strategic Management : Strategic Management*. *1*, 274.

Lopez-Torres, G. C., Montejano-García, S., Alvarez-Torres, F. J., & Perez-Ramos, M. de J. (2022). Sustainability for competitiveness in firms – a systematic literature review. *Measuring Business Excellence*, *26*(4), 433–450.

Momaya, K. S. (2018). Innovation capabilities and firm competitiveness performance: Thinking differently about future. . *International Journal of Global Business and Competitiveness*, *13*(1), 16–25.

Murinde, V., Rizopoulos, E., & Zachariadis, M. (2022). The impact of the FinTech revolution on the future of banking: Opportunities and risks. *International Review of Financial Analysis*, *81*(June 2021), 102103.

Nasiri, M., Ukko, J., Saunila, M., & Rantala, T. (2020). Managing the digital supply chain: The role of smart technologies. *Technovation*, *96–97*(May 2019), 102121.

Patidar, A., Sharma, M., Agrawal, R., & Sangwan, K. S. (2023). Supply chain resilience and its key performance indicators: an evaluation under Industry 4.0 and sustainability perspective. *Management of Environmental Quality: An International Journal*, *34*(4), 962–980.

Qureshi, M. J., & Siddiqui, D. A. (2021). The Effect of Intangible Assets on Financial Performance, Financial Policies, and Market Value of Technology Firms: A Global Comparative Analysis. *Asian Journal of Finance & Accounting*, *12*(1), 26.

Rehman Khan, S. A., Ahmad, Z., Sheikh, A. A., & Yu, Z. (2022). Digital transformation, smart technologies, and eco-innovation are paving the way toward sustainable supply chain performance. *Science Progress*, *105*(4).

Rehman Khan, S. A., Yu, Z., Sarwat, S., Godil, D. I., Amin, S., & Shujaat, S. (2022). The role of block chain technology in circular economy practices to improve organisational performance. *International Journal of Logistics Research and Applications*, *25*(4–5), 605–622.

Seyedghorban, Z, Tahernejad, H., & Meriton, R. (2020). *Supply chain digitalization: past, present and future*.

Siddik, A. B., Yong, L., & Rahman, M. N. (2023). The role of Fintech in circular economy practices to improve sustainability performance: a two-staged SEM-ANN approach. *Environmental Science and Pollution Research*, *30*(49), 107465–107486.

Udeagha, M. C., & Ngepah, N. (2023). The drivers of environmental sustainability in BRICS economies: Do green finance and fintech matter? *World Development Sustainability*, *3*(December 2022), 100096.

Vergara, C. C., & Agudo, L. F. (2021). *Fintech and Sustainability: Do They Affect Each Other? Sustainability* 13 (13), 7012.

Wang, Y., Xiuping, S., & Zhang, Q. (2021). Can fintech improve the efficiency of commercial banks? —An analysis based on big data. *Research in International Business and Finance*, *55*, 101338.

Yan, C., Siddik, A. B., Yong, L., Dong, Q., Zheng, G. W., & Rahman, M. N. (2022). A Two-Staged SEM-Artificial Neural Network Approach to Analyze the Impact of FinTech Adoption on the Sustainability Performance of Banking Firms: The Mediating Effect of Green Finance and Innovation. *Systems*, *10*(5).

Yun, J. H. J., Zhao, X., Jung, K. H., & Yigitcanlar, T. (2020). The culture for open innovation dynamics. *Sustainability (Switzerland)*, *12*(12), 1–21.

Zhang-Zhang, Y., Rohlfer, S., & Rajasekera, J. (2020). An eco-systematic view of cross-sector fintech: The case of Alibaba and Tencent. *Sustainability (Switzerland)*, *12*(21),1–25.

Zhou, G., Zhu, J., & Luo, S. (2022). The impact of fintech innovation on green growth in China: Mediating effect of green finance. *Ecological Economics*, *193*, 107308.