Business & Social Science
IJRBS

Research in Business & Social Science

IJRBS VOL 13 NO 5 (2024) ISSN: 2147-4478

Available online at www.ssbfnet.com
Journal homepage: https://www.ssbfnet.com/ojs/index.php/ijrbs

The influence of financial literacy and the use of financial technology on business performance through financial inclusion

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ARTICLE INFO

Article history:

Received 12 May 2024
Received in rev. form 21 June 2024
Accepted 22 July 2024

Keywords:

Business performance, financial inclusion, financial literacy, financial technology

JEL Classification:
G20, G53, O30

ABSTRACT

There are many factors that can influence country's economic growth. Given its important contribution to Gross Domestic Product (GDP) and job creation, it is necessary to further study what factors can affect the existence and the performance of SMEs. This study aims to analyze the effect of financial literacy and the use of financial technology on the performance of SMEs mediated by financial inclusion. The data was collected using purposive sampling technique by distributing questionnaire. The sample of this study consists of 150 culinary SME actors in Malang City that have used QRIS (Quick Response Code Indonesia Standards) application as one of the payment methods. Collected data was analyzed using PLS software. The results showed that there is a significant influence between financial literacy and the use of financial technology on business performance. Financial inclusion can significantly mediate the effect of financial literacy and the use of financial technology on business performance.

Introduction

The success of a country's economic development can be measured by its economic growth. Based on World Bank (2019), SMEs have an important role in the country's economy, especially for developing countries including Indonesia. SMEs participate in 90% of the total number of existing businesses. The important role of SMEs in a country's economy has been proven by previous studies in various countries (Agyapong & Attram, 2019; Menike, 2019; Mukarromah et al., 2020; Yakob et al., 2021; Lontji et al., 2023). Based on data from BPS-Statistics of Malang City, the number of culinary SMEs in Malang City has increased significantly in recent years. In practice, culinary SME owners experience several obstacles such as a decrease in sales growth (MalangPost.com, 2024) and a decrease in profits caused by rising raw material prices (Kompas.id, 2024). This shows, SMEs are still vulnerable to maintaining the stability of their performance and business continuity.

Akanbi et al. (2022) revealed that company performance is a indicator that can be used to describe how well the company has achieved their goals. Business performance is the benchmarks for assessing the success of a company in carrying out its operational activities. Financial and non-financial business performance measurement has important role that needs to be considered by SMEs to maintain their competitive advantage (Priyantoro et al. 2023). According to Aggyapong & Attram (2019), the low level of financial literacy has become the obstacle for SMEs to improve their performance. In 2022, The Financial Services Authority of Indonesia conducted a 3 year-survey to obtain the level of financial literacy and the result shows that financial literacy level is only at 49%. One way to improve the performance and sustainability of SMEs is to improve entrepreneurial skills, digital literacy, and financial literacy (Yanto et al., 2022).

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https://doi.org/10.20525/ijrbs.v13i5.3514

According to Usama & Yusoff (2019), financial literacy refers to the financial knowledge and skills that enable entrepreneurs to implement effective financial management strategies for their companies. This study uses Resource-Based Theory and Theory of Behavioral Finance to examine the effect of financial literacy on SMEs performance. Shuaib & He (2021) revealed that one way to maintain a competitive advantage is by prioritizing knowledge-based resources owned by the company. Buchdadi et al.(2020); Mukarromah et al.(2020); Priyantoro et al. (2023); Agyapong & Attram (2019) found the significant effect between financial literacy and SMEs performance. Meanwhile, study from Kaban & Safitry (2020) and Menike (2019) revealed that financial literacy has no effect on SMEs performance.

Zehir & Balak (2018) revealed that the company's ability to adapt to rapid environmental changes can affect company performance. Aisjah et al. (2023) revealed that adopting the use of technology can improve company performance. In line with the Technology Acceptance Model (TAM) proposed by Davis (1989), perceived usefulness and perceived ease of use are both important factors that encourage the use of new technology. In order to support *financial technology* existence, Bank Indonesia launched the digital payment system, namely QRIS (Quick Response Code Indonesia Standard) as a payment method alternative. The significant effect of financial technology on business performance was found by Syauqi et al.(2023), Lontji et al. (2023), Akanbi et al. (2022). However, recent study conducted by Alkhawaldeh et al. (2023) showed that the effect of financial technology on business performance is not significant.

This research try to include financial inclusion as a mediating variable to overcome the inconsistency findings between the effect of financial literacy and the use of financial technology on business performance. Lee et al. (2020) discovered that financial inclusion allows people to gain access to finance, increase productivity, and increase sales growth which in turn can affect company performance. Previous study by Sanistasya et al. (2019); Ratnawati (2020); Agbim (2020); Togun et al. (2022) have examined the impact of financial inclusion on business performance. The result showed that financial inclusion significantly influences business performance. Financial literacy can increase financial inclusion because financial literacy improve the efficiency and quality of financial services (Goenadi, et al. 2022). Kwuta et al. (2023) proved that financial literacy has a significant effect on business performance through financial inclusion.

Asif et al. (2023) revealed that developing countries, especially countries with large populations, have obstacles in providing financial services. The Financial Services Authority of Indonesia (OJK) revealed that there are many SMEs that have not received financing. Financial technology existence emerges to become additional alternatives for financial institutions to serve people who previously could not be reached by financial services. The existence of financial technology can increase financial inclusion has been proven by several previous studies by Menza et al. (2024); Asif et al. (2023); Shen et al. (2019); Bongomin et al. (2018). Syauqi et al. (2023) found that the use of financial technology has a significant effect on business performance through financial inclusion.

This study aims to examine the effect of financial literacy and the use of financial technology on the culinary SMEs performance and examine the role of financial inclusion as a mediation variabel.

Literature Review

Resource Based Theory

Resource Based Theory is a theory that describes how company can achieve competitive advantage by relying on its resources so that the company can maintain its business sustainability (Barney, 1986). Yakob et al. (2021) stated that the competitive advantage of a business can come from the company's internal resources. From the perspective of resource-based theory¸ financial literacy is an internal resource of the company that can be used as a competitive advantage so as to improve the performance of SMEs (Agyei, 2018; Agyapong & Attram, 2019; Frimpong et al. 2022; Priyantoro et al., 2023).

Theory of Behavioral Finance

Theory of Behavioral Finance is a theory that studies how investors make choices and assessments of financial markets by considering the psychological factors possessed by the investor (Altman, 2015). Emotional factors and investor psychology are some of the factors that will influence investors to behave irrationally in making financial decisions (Shofi et al. 2022). Goenadi et al. (2022) revealed that there is a tendency for investors to rely on references from pre-existing data to make forecasts or financial estimates in the future. One of the processes in decision making is the heuristic process where investors will make financial decisions even though the information obtained is not sufficient. This process eventually leads to wrong and irrational decision making. Therefore, financial knowledge or financial literacy has important role to affect the financial decision making of investors.

Technology Acceptance Model

The Technology Acceptance Model is a theory developed by Davis (1989) which states that there are two factors that influence person's behavior using intention. These factors are perceived ease of use and perceived usefulness. Perceived usefulness is defined as the degree to which a person believes that using a particular system will improve his performance. But this belief alone is not enough to encourage someone to use new applications or technologies. The factor of easy use is an important factor to encourage the use of these new applications or technologies. Perceived ease of use is a level at which a person believes that using a particular system will be free of effort.

Business Performance

Ratnawati (2020) defines performance as the result of individuals and groups within an organization to achieve the organization's common goals in a certain period of time. Company performance refers to the company's ability to manage its resources to achieve company goals efficiently and effectively (Asat, 2015). Akanbi et al. (2022) revealed that it is not enough to measure company performance using only from financial performance aspect. Non-financial performance aspects such as customer satisfaction, product quality, productivity, and efficiency are important factors in measuring company performance. The performance measurement indicators in this study refer to research conducted by Ratnawati (2020), Shofi (2022) and Priyantoro (2023), namely sales growth, profit growth, market share growth, and employee growth.

Financial Literacy

According to Usama & Yusoff (2019), financial literacy refers to the financial knowledge and skills that enable entrepreneurs to implement effective financial management strategies for their companies. Financial literacy allows entrepreneurs to avoid failures caused by financial decision-making errors. The success of a business depends on the right financial decisions making. Financial literacy helps company managers understand financial concepts related to debt, savings, insurance, investment so that company performance is well maintained (Yakob et al., 2021). Tuffour et al. (2020) stated that company managers who have more financial knowledge about financial matters can make better financial decisions for their company. Actually, company managers also need to have good financial attitudes and awareness so that all decisions made related to financial decisions can improve to better company performance. Based on these findings, researcher assumes that financial literacy allows SME business owner to have more comprehensive understanding about how they will make financial decision regarding their business. Indicators of financial literacy used in this study refer to research by Goenadi (2022) & Bongomin (2017): financial knowledge, financial behavior, financial attitude, and financial skill.

H1 : Financial literacy has significant and positive effect on business performance

Financial Technology

Rahardjo et al. (2019) revealed that the proper use and application of financial technology can improve the business performance. Dinar, et al. (2021) explains that presence of financial technology can improve SMEs performance’s by expanding their business and market share. SMEs can reach customers in various regions so demand for goods and services continues to increase. The existence of financial technology increase the work efficiency because there is a shift from manually working proccess to automatically working process. There will be cost efficiency and time efficiency that will be increase the productivity of business. Thus, researcher assumes that the use of financial technology will allow SMEs owner to run their business effectively and efficiently. Indicators of financial technology use in this study refer to research by Perwitasari (2022); Syauqi (2023); and Lontji (2023) : perceived usefulness, perceived ease of use, and trust.

H2 : Financial technology has significant and positive effect on business performance

Financial Inclusion

Financial inclusion according to Goenadi, et al. (2022) is a form of access to financial provided by formal financial institutions in the form of credit, investment funds, installments, and insurance. Financial inclusion is an effort to provide access and financial services that are affordable, accessible, and in accordance with the needs of the community, especially those with low income. Lee et al. (2020) revealed that financial inclusion allows businesses to gain access to finance, increase productivity, and increase sales growth which in turn can affect company performance. Agbim (2020) assesses that implementing the right financial inclusion strategy supported by local government policies can improve the financial performance and non-financial performance of SMEs. The financial inclusion indicators in this study refer to the research conducted by Bongomin (2017); Ratnawati (2020); Goenadi (2022): access, quality, usage, and welfare.

H3 : Financial inclusion has significant and positive effect on business performance

Goenadi, et al. (2022) explained that financial literacy able to increase financial inclusion, because financial literacy helps improve the efficiency and quality of financial services. Financial literacy provides the ease of access and encourages the use of financial products and services that are relevant to the needs of the business owner. The use of financial services that suit the business owner’s need is expected to increase business performance.

H4 : Financial literacy has significant and positive effect on financial inclusion

H6 : Financial literacy has significant and positive effect on business performance mediated by financial inclusion

Makina (2019) revealed that financial technology companies have influenced the financial industry in three significant ways. First, financial technology improves the efficiency of financial services through digitization of financial service. Financial technology provides flexibility that is not found in traditional banking in terms of providing cheap financial products and services. Third, financial technology offers general banking services but is not as rigid as traditional banking. The ease of access to financial services will allow SME business owner to fulfill their need likes the need of financing. Based on these findings, researcher assumes that the more the understanding of financial technology usage, the more the SME business owners have access to financial services and thus will affect business performance.

H5 : Financial technology has significant and positive effect on financial inclusion

H7 : Financial technology has significant and positive effect on business performance mediated by financial inclusion

Conceptual Framework of Research

This study consists of four main construct variables consisting of two independent variables namely financial literacy and financial technology and one dependent variable namely business performance. In addition, financial inclusion is added in this study as a mediating variable. The conceptual framework of this research is as follows.

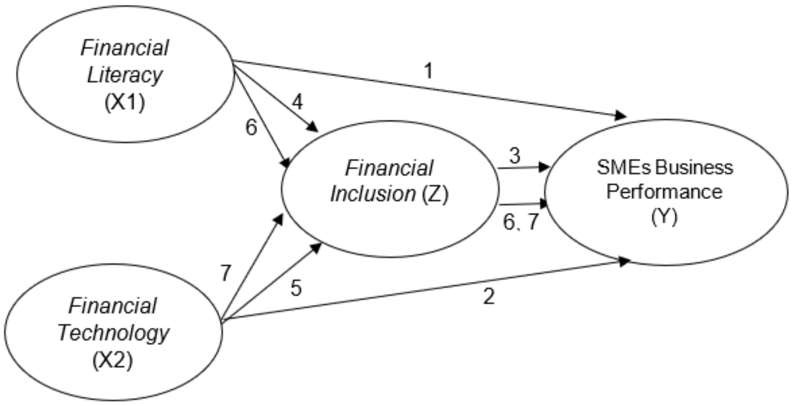

Figure 1: Conceptual Framework

Research and Methodology

Participant and data collection

This study uses an explanatory approach to analyze and explain the direct and indirect relationships between the variables used in this study. The variable measurement technique used in this study is to use a Likert scale with a scale of 1 (strongly disagree) to 5 (strongly agree). The population of this study is all SMEs in the culinary sector in Malang City that have operated QRIS as a method of receiving payments from customers. The purposive sampling technique was used in this study with the following criteria: 1. has been running a business for at least 3 years, 2. has a annual sales in the range of IDR300,000,000 to IDR50,000,000,000, 3. has employess of 5 to 99 people, 4. has a Business License Number (NIB), 5. uses QRIS as one of the methods of receiving payments, 6. Culinary SMEs.

Data Analysis

The analysis method in this research uses SEM (*Structural Equation Modeling*) with a PLS (*Partial Least Square*) approach using the Smart PLS 3.29 application.

Findings and Discussion

Respondent Characteristics

Based on table 1, the average respondent based on gender is dominated by women with 54.7% of respondents. This indicates that the culinary sector in Malang City is still dominated by women who in this case more understand about the culinary world. Based on age, the majority of respondents are at productive age where SME owners over 30 years old dominate with a percentage level of > 50%. Based on educational background, the majority of SME owners in Malang City have a Bachelor's degree or Diploma as much as 52.7%. Based on the length of business, the majority of SME owners in Malang City have been running their business for 3-5 years, as many as 46%. This indicates that the culinary sector in Malang City has experienced significant growth in recent years. Based on the category of sales turnover per year and the number of workers owned, the majority of SME owners in Malang City fall into the medium category, namely with a annual sales of > IDR300,000,000 to IDR 2,500,000,000 (89.33%) and a workforce of 5-19 people (81.3%).

Table 1: Respondent Demographics

	Category	Frequency	%
Gender	Man	68	45.3
	Woman	82	54.7
Age	21 – 30 years old	17	11.3
	31 – 40 years old	35	23.3
	41 – 50 years old	62	41.4
	51 – 60 years old	30	20
	> 60 years old	6	4
Education	Elementary School	5	3.3
	Junior High School	20	13.3
	Senior High School	31	20.7
	Graduate	79	52.7
	Post-Graduate	15	10
Duration of Business	3 – 5 years	69	46
	5 - 10 years	56	37.3
	>10 years	25	16.7
Annual Sales	IDR 300,000,001 – IDR 2,500,000,000	134	89.33
	IDR 2,500,000,001 – IDR 50,000,000,000	16	10,67
Number of Employee	5 – 19 persons	122	81.3
	20 – 99 persons	28	18.7

Source: Author (2024)

Measurement Model Test

Measurement model testing was carried out at the beginning of the study to test the validity of each variable item and the reliability of the variables used in this study. The validity test in this study uses Convergent Validity and Discriminant Validity tests with the condition that the validity of the loading factor is > 0.7 (table 2). Table 3 shows the results of the reliability test with the condition that it can be said to be reliable if the Cronbach's alpha value is > 0.6, AVE > 0.5 and composite reliability > 0.7.

Table 2: Convergent Validity Analysis

Latent Variable	Indicator	Item Code	Loading Factor	Indicator Average	Information
***Financial Literacy* (X1)**	Financial Knowledge	X1.1.1	0,858	0,815	Valid
		X1.1.2	0,771		Valid
	Financial Behavior	X1.2.1	0,756	0,772	Valid
		X1.2.2	0,787		Valid
	Financial Attitude	X1.3.1	0,704	0,710	Valid
		X1.3.2	0,715		Valid
	Financial Skill	X1.4.1	0,786	0,818	Valid
		X1.4.2	0,850		Valid
Financial Technology (X2)	Perceived usefulness	X2.1.1	0,794	0,735	Valid
		X2.1.2	0,706		Valid
		X2.1.3	0,704		Valid
	Perceived ease of use	X2.2.1	0,811	0,813	Valid
		X2.2.2	0,832		Valid
		X2.2.3	0,797		Valid
	Trust	X2.3.1	0,727	0,718	Valid
		X2.3.2	0,724		Valid
		X2.3.3	0,702		Valid
Financial Inclusion (Z)	Access	Z.1.1	0,854	0,839	Valid
		Z.1.2	0,824		Valid

	Quality	Z.2.1	0,774	0,806	Valid
		Z.2.2	0,837		Valid
	Usage	Z.3.1	0,823	0,801	Valid
		Z.3.2	0,779		Valid
	Welfare	Z.4.1	0,829	0,846	Valid
		Z.4.2	0,862		Valid
Business Performance (Y)	Sales Growth	Y.1.1	0,768	0,762	Valid
		Y.1.2	0,755		Valid
	Market Share Growth	Y.2.1	0,729	0,729	Valid
		Y.2.2	0,729		Valid
	Profit Growth	Y.3.1	0,843	0,804	Valid
		Y.3.2	0,764		Valid
	Employee Growth	Y.4.1	0,806	0,775	Valid
		Y.4.2	0,743		Valid

Source: PLS Output Result (2024)

Table 3: Reliability Analysis

Latent Variable	***Composite Reliability***	***Cronbach's Alpha***	**AVE**	**Information**
Financial Literacy (X1)	0,925	0,908	0,608	Reliable
Financial Technology (X2)	0,923	0.907	0,573	Reliable
Financial Inclusion (Z)	0,920	0,901	0,590	Reliable
Business Performance (Y)	0,944	0,932	0,677	Reliable

Source: PLS Output Result (2024)

Based on the validity and reliability test results shown in table 2 and table 3, it can be concluded that all variables used in this study, namely financial literacy, financial technology, financial inclusion, and business performance are said to be valid and reliable.

Structural Model Test

The structural model test using 3 approaches, namely the determinant coefficient (R^2), Predictive Relevance (Q^2), and Goodness of Fit (GoF). Determinant coefficient (R^2) for financial inclusion is 0.536 and for SME performance is 0.367. This indicates that the ability of exogenous variables to explain endogenous variables only contributes 53.6% for financial inclusion and 36.7% for SME performance. Predictive relevance (Q^2) in this study is 0.706 which indicates that the diversity of data in this research model can be categorized as strong because it is close to 1. While the goodness of fit (GoF) in this study is 0.526 and that means it has exceeded 0.36 to be categorized in a strong model.

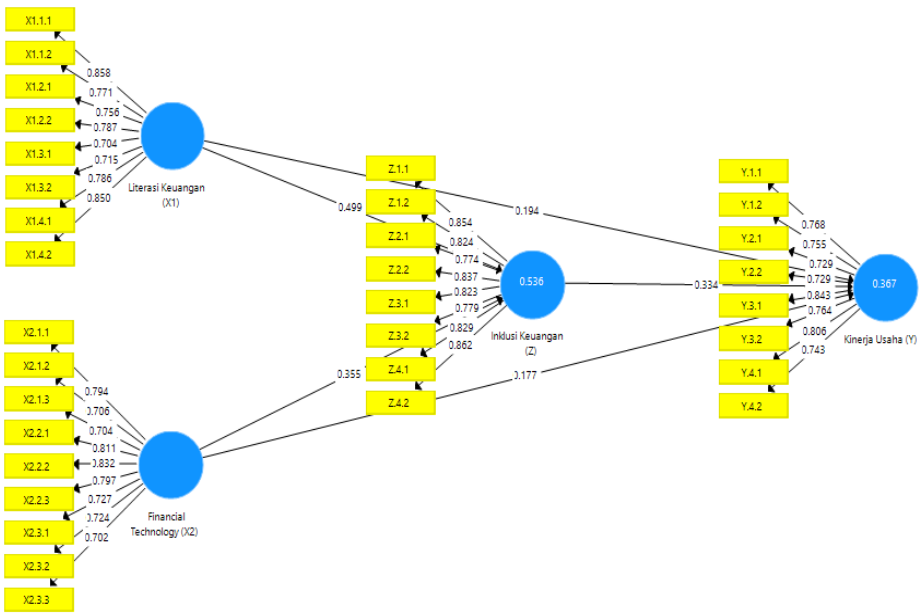

Figure 2: SmartPLS Test Result

Hypotesis Test

This research aims to examine the direct influence of financial literacy, financial technology, financial inclusion, and business performance.

Table 4: Test Result of Direct Effect between Variables

Hypothesis	Relationship Between Variables	Path Coefficient	*t-statistic*	*p-value*	Result
H1	Financial Literacy →Business Performance	0,194	2,194	**0,029**	Accepted
H2	Financial Technology → Business Performance	0,177	2,527	**0,012**	Accepted
H3	Financial Inclusion → Business Performance	0,334	3,931	**0,000**	Accepted
H4	Financial Literacy →Financial Inclusion	0,499	8,630	**0,000**	Accepted
H5	Financial Technology → Financial Inclusion	0,355	4,826	**0,000**	Accepted

Source: PLS Output Result (2024)

Researcher use t-table value of 1,96 with significance level of 5% to examine the direct effect between variables. Based on table 4, we can conclude that each variable influence positively and significantly to other variables. Financial literacy significantly and positively influences business performance ($\beta = 0.194$; $t = 2.194$; $p < 0.05$). So, Hypotesis 1 is accepted. Furthermore, financial technology has significant and positive effect on business performance ($\beta = 0.177$; $t = 2.527$; $p < 0.05$). So, Hypotesis 2 is accepted. In addition, financial inclusion has significant and positive effect on business performance ($\beta = 0.334$; $t = 3.931$; $p < 0.05$). So, Hypotesis 3 is accepted. Then, financial literacy significantly and positively influences financial inclusion ($\beta = 0.499$; $t = 8.630$; $p < 0.05$). So, Hypotesis 4 is accepted. Lastly, financial technology has significant and positive effect on financial inclusion ($\beta = 0.355$; $t = 4.826$; $p < 0.05$). So, hypotesis 5 is also accepted.

Table 5: Test Result of Indirect Effect (Mediation Test)

Hypothesis	**Relationship Between** Variables	Path Coefficient	*t-statistic*	*p-value*	Result
H6	Financial Literacy → Financial Inclusion → Business Performance	0,167	3,549	**0,000**	Accepted
H7	Financial Technology → Financial Inclusion → Business Performance	0,119	2,962	**0,003**	Accepted

Source: PLS Output Result (2024)

Table 5 as shown above examines financial inclusion as a mediating variable. H6 is accepted because financial literacy has significant and positive effect on business performance through financial inclusion ($\beta = 0.167$; $t = 3.549$; $p < 0.05$). Furthermore, H7 is also accepted because financial technolofy significantly and positively influence business performance through financial inclusion ($\beta = 0.119$; $t = 2.962$; $p < 0.05$). In conlusion, all hypotesis in this research are accepted in the significance level of 5% and t-statistics > t-table (1,96).

Discussion

The effect of financial literacy on business performance

The result of this research shows that financial literacy has significant and positive effect on business performance. Financial knowledge, financial skill, financial attitude, and financial behaviour as internal resources owned by company have an important role to influence how business owners will make financial decisions. The capability of SMEs owner to manage their financial activity This research supported Resouce Based Theory and Theory of Behavioral Finance. The abilities of SME owners to utilize financial services, manage expenses within a set budget, compare costs and benefits before purchasing financial products and services, and the skill to calculate loan interest can affect how SME owners run their businesses. The better the understanding level of financial literacy, the better the quality of financial decision-making. This result is in line with the research conducted by Sanistasya et al. (2019); Buchdadi et al. (2020); Mukarromah et al. (2020); and Priyantoro et al. (2023) which revealed that there is a significant and positive influence between financial literacy and business performance. The results of this study also supports the results of research from Agyapong & Attram (2019) which suggest that financial knowledge and financial skills owned by SMEs owners or managers can improve the quality of decision making which will improve competitive advantage and improve business performance. The results of this study confirm the results of the National Financial Literacy Survey in 2022 conducted by the Financial Services Authority which appointed Malang City as the city with the highest level of literacy in Indonesia.

The effect of financial technology on business performance

The result of this study found that financial technology significantly and positively influences business performance. In other words, the more the use of financial technology increased, the more it can affect business performance. Perceived ease of use, perceived usefulness and trust of using financial technology especially QRIS help SME's business owner to run their business efficiently. The use of financial technology espescially QRIS can increase cost efficiency because there is a shift of mechanism from cash payment to cashless. Usually there are many activities that have to be done like recording the payment from customers, going to ATM or banks to storage the money an so on. But these activities can be avoided because the SMEs business owner implement QRIS as a payment method. This improvement eventually will increase business performance. Furthermore, this study supports Technology Acceptance Model which states that there are two factors which can encourage people to use new technology, namely perceived ease of use and perceive usefulness. In addition, this study includes trust to examine the influence of financial technology to business performance. The results of this study is in line with the research conducted by Lontji et al. (2023) which suggests that the use of financial technology can improve SMEs business performance by improving the quality of products and services. This improvement which in turn will improve the financial and operational performance of SMEs. The results of this study support the research of Akanbi et al. (2022), Syauqi et al. (2023), Hasanudin & Panigfat (2024) who found that there is a significant and positive influence between the use of financial technology and business performance.

The effect of financial inclusion on business performance

The result of this study found that there is positive and significant effect of financial inclusion to business performance. Financial inclusion helps SMEs owners to obtain and use financial services according to their needs. The ease of gaining access to financial services, the use of financial services that suit their needs, and the quality of financial services provided by financial institutions can improve the welfare of SMEs owners. These four indicators used to examine financial inclusion have proven can improve business performance. Non-stop access to financial services, the promptness and the quickness of banking financial institutions provide financial services, and the benefits of using financial services will affect the SMEs business sustainability . The result of this study is in line with Ratnawati (2020) who argues that financial inclusion, which is all efforts to increase access and use of financial services that aims to improve the welfare of its users, can improve SME business performance. The research result also supports previous research conducted by Sanistasya et al. (2019), Agbim et al. (2020) and Fomum & Opperman (2023) which show that there is a significant and positive relationship on SMEs business performance.

The effect of financial literacy on financial inclusion

The results of testing the fourth hypothesis in this study indicate that there is a significant influence between financial literacy on financial inclusion. In addition, the results of this test also show that between financial literacy and financial inclusion has a positive relationship, where an increase in financial literacy owned by SMEs owners will also increase financial inclusion. Financial literacy helps SMEs business owners by empowering and educating them about financial knowledge that is relevant to their daily needs. This in turn will enable SMEs business owners use their knowledge to evaluate financial products and services in order to make informed financial decisions and choices (Bongomin et al. 2017). This study support the research of Khan et al. (2022) which suggests that financial literacy can increase understanding of complex financial products. The more their understanding about financial products, the more they seek and learn more detailed information related to financial products which will increase their demand of financial products. This increase in demand for financial products will directly increase financial inclusion. The result of this study is also in line with research from Shen et al. (2019), Morgan & Long (2020), Goenadi et al. (2022) which state that financial literacy has a significant and positive effect on financial inclusion.

The effect of financial technology on financial inclusion

The result of this study found that the use of financial technology significantly and positively influence financial inclusion. The existence of financial technology has become an additional alternative for financial institutions to serve people who were previously not fully reached by financial services (Asif et al. 2023). Surprisingly, the existence of financial technology can become a threat to traditional financial institutions because the terms and convenience offered by financial technology companies attract people to use their application that does not need the support of financial institutions (Makina, 2019). Because of this phenomenon, traditional financial institutions will lose their customers gradually if they do not adapt to the latest condition. This condition eventually encourages financial institution to make changes about their mechanisms and procedures to run their financial business. Banks in Indonesia are currently competing to establish digital banks to make their main business adjust to current technological developments. It is undeniable that the existence of financial technology has changed the way people do financial transactions. The result of this study is in line with the research of Shen et al. (2019), Hussein (2020), Asif et al. (2023), Menza et al. (2024) which states that financial technology has a significant effect on financial inclusion. The results of this study also support research from Bongomin et al. (2018) which states that local governments are expected to support the increase in financial inclusion through various policies issued.

The influence of financial literacy on business performance through financial inclusion

The result of H6 hypotesis testing regarding the influence of financial literacy on business performance through financial inclusion is found to be has a significant and positve effect. The mediating effect of financial inclusion on financial literacy on SMEs performance can occur because financial literacy helps improve the efficiency and quality of financial services, provides easy access and encourages the use of financial products and services that are relevant to the needs of the community (Goenadi et al. 2022). Financial literacy can affect financial inclusion by improving the quality of financial ability of SMEs business owners so that they can be seen 'bankable' to financial institutions. The ability of SMEs business owners to make a full use of financial services will eventually improve their productivity and performance. The result of this study supports the research conducted by Cahyawati et al. (2023) and Kwuta et al. (2023) which suggests that financial inclusion can mediate the effect of financial literacy on SMEs business performance.

The influence of financial technology on business performance through financial inclusion

The result of H7 hypotesis testing regarding the influence of financial technology on business performance through financial inclusion is found to be has a significant and positve effect. The adoption of technology has proven can influence company's performance (Aisjah et al., 2023). In this research, the use of financial technology represented by the use of QRIS can affect financial inclusion because of the government regulation that require financial institutions to support government program about one QR code for all QR payment method. In addition, this changes of payment method can affect SMEs business performance because of its efficiency and its usefulness can increase the number of customers which in turn increasing business's sales and performance. The result of this study supports research conducted by Cahyawati et al. (2023) and Syauqi et al. (2023) which suggest that financial inclusion can mediate the effect of financial technology on SMEs business performance.

Conclusions

Based on the findings in this research, it can be concluded that financial literacy owned by culinary SMEs business owner has an important role to improve business performance. Good level of financial literacy supports culinary business owners to make good financial decisions. Financial technology as a supporting tool for culinary business owners also has an important role because it helps business owners to run their business effectively and efficiently. This makes costs related to run business to be minimalized therefore it can improve culinary SMEs performance. The better the use of financial services to meet culinary SMEs owners need, the better the quality of financial produts and services offered by financial institutions. This high quality of financial services undoubtedly can increase business performance. So, it can be concluded in this study that financial literacy and the use of financial technology can improve business performance through financial inclusion.

This study suggests that SME business owners can improve their level of financial literacy by attending training held by the local government and update their understanding of the use of financial technology by taking an active role in learning the cutting-edge technologies. This improvement in better financial literacy and better understanding about financial technology hopefully can increase the business performance. Furthermore, this study also suggests that local governments as a policymaker and financial institutions as a financial intermediary pay attention to the needs of SMEs business owners in order to help them increase their performance. Financial institusion can fulfill financing need of SMEs in order to support business performance. Moreover, researcher also suggests that local government to collect data on SMEs that have implemented financial technology so that performance improvements are more detailed and targeted.

The limitiations of this study are as follows: first, this study used the definition of financial literacy variables in general form amidst the rapid technological changes conditions that develop and change very quickly. Future research is expected to use digital financial literacy variables so that it can better describe the current condition of the research object. Future research is expected to use digital financial literacy variables to better describe the current condition of the research object. Second, this study was conducted and limited to culinary SME's business owner, so the results of the research cannot be generalised for SMEs in general. Therefore, future researchers are expected to expand their object and scope to another sector.

Acknowledgement

All authors have read and agreed to the published version of the manuscript.
Author Contributions: Conceptualization, P.R.M., K.R. and S.A.; methodology, P.R.M., K.R. and S.A validation, P.R.M., K.R. and S.A; formal analysis, P.R.M., K.R. and S.A.; investigation, P.R.M., K.R. and S.A; resources, P.R.M., K.R. and S.A; writing—original draft preparation, P.R.M..; writing—review and editing, P.R.M., K.R. and S.A
Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.
Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.
Conflicts of Interest: The authors declare no conflict of interest.

References

Agyapong, D., Attram, A. B. (2019). Effect of Owner-Manager's Financial Literacy on Performance of SMEs in The Cape Coast Metropolis in Ghana. *Journal of Global Entrepreneurship Research, 9(1):* 1-13. https://doi.org/10.1186/s40497-019-0191-1

Agyei, S. K. (2018). Culture, Financial literacy, and SME Performance in Ghana. *Cogent Economics & Finance*, 6:1. https://doi.org/10.1080/23322039.2018.1463813

Aisjah, S., Arsawan, I .W. E., Suhartanto, D. (2023). Predicting SME's Business Performance: Integrating Stakeholder Theory And Performance Based Innovation Model. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(3). https://doi.org/10.1016/j.joitmc.2023.100122

Akanbi, T. A., Oladejo, M. O. and Oyeleye, O. A. (2022). Impact of Fintech (Financial Technologies) Usage on The Financial and Non-Financial Performance of Small and Medium Scale Enterprises in Nigeria. *International Journal Of Academic Research In Accounting, Finance And Management Sciences 12(2)*: 306-316. http://dx.doi.org/10.6007/IJARAFMS/v12-i2/13262

Alkhawaldeh, B. Y., Alhawamdeh, H., Al-afeef, M. A. M., Al-Smadi, A. W., Almarshad, M., Fraihat, B. A. M., Soumadi, M. M., Nawasra, M., Alaa, A. A. 2023. The effect of financial technology on financial performance in Jordanian SMEs: The role of financial satisfaction, *Uncertain Supply Chain Management*, 11: 1019–1030. http://dx.doi.org/10.5267/j.uscm.2023.4.020

Altman, M. (2015). *Handbook of contemporary behavioral economics: foundations and developments*. Routledge

Asat, S. H., Maruhun, E. N. S., Haron, H., & Jaafar, M. .2015. Enterprise Risk Management (ERM) and Organisational Performance: The Case of Housing Developers in Malaysia. *MARIM International Conference*.

Asif. M., Khan, M. N., Tiwari, S., Wani, S. K., Alam, F. 2023. The Impact of Fintech and Digital Financial Services on Financial Inclusion in India. *Journal of Risk and Financial Management, MDPI. https://doi.org/10.3390/jrfm16020122*

Barney, J. (1986). Organizational Culture: Can It Be a Source of Sustained Competitive Advantage? *Academy of Manajement Review*, 11, 656–665. https://doi.org/10.5465/amr.1986.4306261

Bongomin, G. O. C., Munene, J. C. 2017. Financial Literacy in Emerging Economies, Do All Components Matter for Financial Inclusion of Poor Households in Rural Uganda?. *Managerial Finance 43(12):* 1310-1331. https://doi.org/10.1108/MF-04-2017-0117

Bongomin, G. O. C., Ntayi, J. M., Munene, J. C., Malinga, C. A. 2018. Mobile Money and Financial Inclusion in Sub-Saharan Africa: the Moderating Role of Social Networks. *Journal of African Business 19(3):* 361-384. https://doi.org/10.1080/15228916.2017.1416214

BPS. (2023a). *Jumlah Usaha Mikro Kecil Menengah (UMKM) Menurut Kecamatan di Kota Malang (Unit), 2021-2023*. Badan Pusat Statistik. https://malangkota.bps.go.id/indicator/35/531/1/jumlah-usaha-mikro-kecil-menengah-umkm-menurut-kecamatan-di-kota-malang-.html.

BPS. (2023b). *Jumlah Usaha Mikro Kecil Menengah (UMKM) Kuliner Menurut Kecamatan di Kota Malang (Unit), 2021-2023*. Badan Pusat Statistik. https://malangkota.bps.go.id/indicator/35/534/1/jumlah-usaha-mikro-kecil-menengah-umkm-kuliner-menurut-kecamatan-di-kota-malang.html

Buchdadi, D. B., Sholeha, A., Ahmad, G. N., & Mukson. 2020. The Influence Of Financial Literacy On SME'S Performance Through Access To Finance And Financial Risk Attitude As Mediation Variables. *Academy of Accounting and Financial Studies Journal*. Vol 24(5).

Cahyawati, N. E., Nantungga, K.H., Tumewang, Y. K. 2023. The Influence of Financial Technology & Literacy on MSMEs Sustainability with Financial Inclusion as a Mediating Variable. *Journal of Contemporary Accounting 5(2): 71-82. https://doi.org/10.20885/jca.vol5.iss2.art2*

Davis, F.D. 1989. Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly, 13 (3): 319-340. https://doi.org/10.2307/249008*

Dinar, M., Asti Handayani, A., & Hasan, M. 2021. Inovasi Financial Technology dalam Pengembangan Usaha Mikro, Kecil, dan Menengah di Provinsi Sulawesi Selatan. *Preceeding Seminar Nasional - Digital Generation for Digital Nation*, 1–11.

Frimpong, S. E., Agyapong, G., Agyapong, D. 2022. Financial Literacy, Access to Digital Finance and Performance of SMEs: Evidence From Central Region of Ghana. *Cogent Economics & Finance*, 10:1. https://doi.org/10.1080/23322039.2022.2121356

Goenadi, G. F., Murhadi, W. R., & Ernawati, E. 2022. The Influence of Financial Literacy on Financial Inclusion: Social Capital as Mediating Variable. *Media Ekonomi Dan Manajemen*, *37*(2), 195–209. http://dx.doi.org/10.24856/mem.v37i2.2738

Hasanudin, & Panigfat, F., 2024. Unlocking MSME Performance: The Interplay of Financial Literacy, Financial Inclusion, and Financial Technology Lending with Venture Capital Mediation. *Shirkah: Journal of Economics and Business* 9(2): 137-148. http://dx.doi.org/10.22515/shirkah.v9i2.657

https://malang-post.com/2024/03/15/bank-indonesia-prakirakan-penjualan-eceran-akan-terkontraksi/

https://www.kompas.id/baca/english/2024/02/29/keuntungan-umkm-kuliner-tergerus-kenaikan-harga-beras

Hussein, H. 2020. The Impact of Financial Technology on Financial Inclusion: The Case of Egypt. *IOSR Journal of Economics and Finance* (*IOSR-JEF*) 11 (6): 35-51. DOI: 10.9790/5933-1106023551

Kaban, R.F. & Safitry, M. 2020. Does Financial Literacy Effect To Performance And Sustainabillity of Culinary MSMEs in Greater Jakarta?. *Ekonomi Bisnis 25(1),* 1-13. http://journal2.um.ac.id/index.php/ekobis

Khan, F., Siddiqui, M. A., & Imtiaz, S. 2022. Role of financial literacy in achieving financial inclusion: A review, synthesis and research agenda. *Cogent Business and Management*, *9*(1): 1–37. https://doi.org/10.1080/23311975.2022.2034236

Kwuta, M. S. I., Khuzaini. Triyonowati. 2023. The Influence of Financial Literacy on MSME Performance is Mediated by Financial Behavior and Financial Inclusion (Study in Kewapante District – Sikka Regency). *Journal of Economics, Finance and Management Studies 6 (12):* 5922-5943. https://doi.org/10.47191/jefms/v6-i12-19

Lee, C. C., Wang, C. W., Ho, S.J. 2019. Financial inclusion, Financial Innovation, and Firms' Sales Growth. *International Review of Economics & Finance*, 66, 189–205. https://doi.org/10.1016/j.iref.2019.11.021

Lontji, C. B., Yang, B. C., Shuaib, K. M. 2023. Effect of Financial Technology on SMEs Performance in Cameroon amid COVID-19 Recovery: The Mediation Effect of Financial Literacy. *MDPI (Sustainability). https://doi.org/10.3390/su15032171*

Makina, D. 2019. The Potential of Fintech In Enabling Financial Inclusion. *Extending Financial Inclusion in Africa*. 299-318. https://doi.org/10.1016/B978-0-12-814164-9.00014-1

Menike, LCMS. 2019. Effect of Financial Literacy On Firm Performance of Small and Medium Enterprises in Sri Lanka. *Financial Market & Corporate Governance Conference.*

Menza, M., Jerene, W., & Oumer, M. 2024. The effect of financial technology on financial inclusion in Ethiopia during the digital economy era. *Cogent Social Sciences*, *10*(1), 1–17. https://doi.org/10.1080/23311886.2024.2309000

Morgan, P. J., Long, T. Q. 2020. Financial Literacy, Financial Inclusion, and Savings Behavior in Laos. *Journal of Asian Economics.* https://doi.org/10.1016/j.asieco.2020.101197

Mukarromah, D., & Astuti, M. 2020. Financial Performance Analysis on Micro, Small, and Medium Enterprises of Cassava Product in Cibadak, Lebak Regency, Banten. *Jurnal Economia*, *16*(2), 257–268. https://journal.uny.ac.id/index.php/economia

Perwitasari, A. W. 2022. The Effect of Perceived Usefulness and Perceived Easiness towards Behavioral Intention to Use Fintech by Indonesian MSMEs. The Winners, 23 (1): 1-9. https://doi.org/10.21512/tw.v23i1.7078

Priyantoro, P., Ratnawati, K., Aisjah, S. 2023. The Effect of Financial Literacy on Business Performance Through Mediation of Financial Access and Financial Risk Attitude. *International Journal of Research in Business and Social Science 12(9):* 275-287. https://doi.org/10.20525/ijrbs.v12i9.3024

Rahardjo, B., Ikhwan, K., & Siharis, A. K. 2019. Pengaruh Financial Technology (Fintech) Terhadap Perkembangan UMKM Di Kota Magelang. *Prosiding Seminar Nasional dan Call For Papers.*

Ratnawati, K. 2020. The Influence of Financial Inclusion on MSMEs' Performance Through Financial Intermediation and Access to Capital. *Journal of Asian Finance, Economics and Business* 7 (11):205–218. https://doi.org/10.13106/jafeb.2020.vol7.no11.205

Sanistasya, P. A., Rahardjo, K., Iqbal, M. 2019, Pengaruh Literasi Keuangan dan Inklusi Keuangan Terhadap Kinerja Usaha Kecil di Kalimantan Timur. *Jurnal Economia 15 (1):* 48-59. https://journal.uny.ac.id/index.php/economia

Shen, Y., Hueng, C. J., Hu, W. 2019. Using Digital Technology to Improve Financial Inclusion in China. *Applied Economics Letters. https://doi.org/10.1080/13504851.2019.1606401*

Shofi, F., Aisjah, S., Suryadi, N. 2022, The Impact of Social Capital and Financial Literacy on Business Performance with Financial Access in SMEs Batik Pamekasan Regency as Mediation. *International Journal of Research in Business and Social Science 11(8):* 213-220. https://doi.org/10.20525/ijrbs.v11i8.2146

Shuaib, K. M., He, Z. 2021. Impact of Organizational Culture On Quality Management and Innovation Practices Among Manufacturing SMEs in Nigeria. *Quality Management Journal,* 28(2): 98-114. https://doi.org/10.1080/10686967.2021.1886023

Syauqi, A., Suryani, E., & Nugraha, N. 2023. The Effect of Financial Technology (Fintech) on the Development of SME with Financial Inclusion as a Mediation Variable: Study on SME's Creative Economic Sector in Lombok. *International Journal of Multicultural and Multireligious Understanding*, *10*(4), 683–696.

Tuffour, J. K., Amoako, A. A., Amartey, E. O. 2022. Assessing The Effect of Financial Literacy Among Managers on The Performance of Small-Scale Enterprises. *Global Business Review. https://doi.org/10.1177/0972150919899753*

Usama, K.M. & Yusoff W. F. W. 2019. The Impact of Financial Literacy on Business Performance. *International Journal of Research and Innovation in Social Science,* 3(10): 84-91

Yakob, S., Yakob, R., Rusli, R. Z. A., B.A.M., H-S. 2021. Financial Literacy and Financial Performance of Small and Medium-sized Enterprises. *The South East Asian Journal of Management,* 15(1) : 72-96. https://doi.org/10.21002/seam.v15i1.13117

Yanto, H., Kiswanto, Baroroh, N., Hajawiyah, A., Rahim, N. M. 2022. The Roles of Entrepreneurial Skills, Financial Literacy, and Digital Literacy in Maintaining MSMEs during the COVID-19 Pandemic. *Asian Economic and Financial Review,* 12(7) :504-517. DOI: 10.55493/5002.v12i7.4535

Zehir, C., & Balak, D. 2018. Market Dynamism and Firm Performance Relation: The Mediating Effects of Positive Environment Conditions and Firm Innovativeness. EMAJ: *Emerging Markets Journal, 8(1),* 45–51. https://doi.org/10.5195/emaj.2018.152