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The influence of financial technology & literacy on MSMEs sustainability with financial inclusion as a mediating variable

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Abstract

Micro and Small Enterprises (MSMEs) contribute a major share to the regional economy. In recent times, business competitiveness grows precariously making sustainability a problem. This study aims to provide empirical evidence about the relationship between financial technology, literacy, inclusion, and MSMEs' sustainability in Sleman. This study uses a quantitative approach with Partial Least Square (PLS). Data were collected from questionnaires of 100 MSMEs in Sleman with a convenience sampling technique. The results reveal that financial technology and literacy impose a positive effect on financial inclusion, while financial technology and literacy exert a positive effect on MSMEs' sustainability. In addition to that, financial inclusion is also found to have a positive effect on mediating financial technology and literacy influence on MSMEs' sustainability. This study provides input for MSMEs management to increase the use of financial technology to support MSMEs' sustainability and for the local government to promote financial literacy for MSMEs and enhance financial inclusion which will ultimately advance MSMEs' sustainability.

Introduction

In this digital era, all activities carried out by the community cannot be separated from a single use of technology. Nearly all sectors have taken advantage of technological developments to innovate, including the financial sector with its financial technology. Financial technology is the phenomenon of a combination of technology and financial features in producing products and services in the financial system that impacts both monetary stability and financial system stability (Bank Indonesia, 2017). The development of financial technology in Indonesia has experienced a rapid increase, which is well reflected in the number of emerging financial technology companies. In 2020, the Indonesian Fintech Association (Aftech) listed up to 369 companies to be its members, from only 24 in 2016 (LPPI_ID, 2020). As of December 2020, the total disbursement of financing through financial technology was recorded at IDR 155.9 trillion, which was distributed to 43,000 accounts (Faqir, 2021). The accelerated technological development in the financial sector has triggered many start-ups to engage in financial technology. A growing number of companies now arrange financial technology services that are easily accessible to consumers. Among the services that are currently developing in Indonesia can be distinguished in general, namely Peer-to-Peer (P2P) lending, payment channels/systems, digital insurance, digital banking, and crowdfunding (Putri et al., 2023).

MSMEs are productive businesses owned by individuals or business entities that fulfil the criteria as micro, small, and medium enterprises. Micro enterprises are businesses with maximum asset ownership of IDR 50,000,000 or maximum annual revenue of IDR 300,000,000. Then small businesses are those with assets ranging from IDR 50,000,000 - Rp. 500,000,000 excluding buildings and land or have annual revenues ranging from IDR 300,000,000 - IDR 2,500,000,000. Then medium-sized businesses are enterprises with assets ranging from IDR 500,000,000 - Rp. 10,000,000,000 excluding buildings and land or have annual revenues ranging from IDR 2,500,000,000 - IDR 50,000,000,000 (UU No 20, 2008). This research on MSMEs was carried out in Sleman due to the promising growth rate of local MSMEs and the fact that most of them are still in active operation.

The use of electronic money (e-money) and digital payments has now become prevalent among the public, encouraging MSMEs to adapt to new technological advances (Dina, 2017). Long-standing MSME players in the business world now face the challenge of keeping up with technological advancements since failing to do so may cause them to lose out to newly founded enterprises that have adapted to more modern technologies and incur a decline in sales. Due to the increased demand from customers for electronic payments, MSME owners are not an exception when it comes to employing electronic payments. The widespread usage of payment gateways in the community helps them to better comprehend that they, too, must implement such a strategy in their businesses.

Financial technology will facilitate public access to financial products and services, increase the provision of financial products and services, and increase the use and quality of use of financial products and services, often called financial inclusion. It includes all efforts that function to eliminate community constraints in accessing financial services and products (Fahlevi, 2018). The financial inclusion strategy can be further described in six pillars, involving financial education, public financial facilities, mapping of financial information, supporting policies, intermediation and distribution facilities, and consumer protection.

Because financial inclusion is an effort by financial institutions to remove all types of price and non-price limitations in order to promote public access to financial institution services, it can help MSMEs remain sustainable. Financial inclusion is a phenomenon that makes it simple for economic actors to gain access to, use, and make use of financial resources like loans and savings. The challenges MSMEs have experienced thus far can be removed with strong access to MSME capital loans (Kurniawan & Gitayuda, 2020).

The research conducted by Nurohman et al. (2021) which investigates the connection between financial technology (Fintech), financial inclusion, and the sustainability of Muslim SMEs in the Solo Raya region, serves as the basis for this study. A quantitative methodology is used in this investigation, employing partial least squares (PLS). By giving questionnaires to 96 Muslim SME owners who were randomly chosen for the study, all data were gathered. According to the study's findings, financial technology and financial inclusion are positively correlated. Furthermore, the sustainability of SMEs is also positively correlated both with financial technology and financial inclusion. The research is then expected to provide more insight to the Government to provide easy access and support the existence and sustainability of SMEs in Solo Raya.

Another research conducted by Irman et al. (2021) looks at how MSMEs may increase financial inclusion through financial literacy and financial technology. This study aimed to identify and understand the impact of financial technology and financial literacy on the financial inclusion of MSMEs in the culinary industry of Pekanbaru. Purposive sampling was selected as the sampling procedure, and 174 respondents were included in the sample. SPSS 16.0, a descriptive analysis, an initial test, a regression test, a traditional assumption test, and hypothesis testing are all employed in the research methodology. The study's findings indicate that financial technology and financial literacy have a positive and significant influence on the financial inclusion of MSMEs in Pekanbaru's culinary industry.

The main difference between this particular study and prior research lies in the additional financial literacy independent variable. This was added according to recommendations proposed by Nurohman et al. (2021) which expressed hope that there would be collaboration and synergy between financial technology managers, financial institutions, MSMEs and the government to increase financial inclusion in order to support the sustainability of MSMEs. Irman et al. (2021) asserted that this can be done by increasing financial literacy and utilizing financial technology for MSMEs.

This study aims to provide empirical evidence about the relationship between financial technology, financial literacy, financial inclusion, and the sustainability of MSMEs in Sleman. The findings of this empirical study are then anticipated to assist in the development of government policies to enhance MSME sustainability as well as to serve as a basis for managerial choices of MSME owners to improve their business sustainability.

Literature Review

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is a model that predicts and explains how technology users will accept and use technology relevant to their work (Putri et al., 2023). The TAM model was introduced by Davis et al. (1989) adopted the causal relationship theory developed by Fishbein, namely the Theory of Reasoned Action (TRA). TAM adds two main constructs in TRA to describe how the user's perspective will shape their attitude towards using technology, which is influenced by perceived usefulness and perceived ease of use (simplicity). Usefulness refers to how a person believes that using technology will improve job performance and simplicity refers to how a person believes that using technology will be free from difficulty (Putri et al., 2023). In this study, the TAM model is used to explain how the use of technology can provide usefulness and convenience for MSME actors.

Financial Technology and MSMEs Financial Inclusion

Financial technology, also known as fintech, is the outcome of the fusion of financial services and technology. It ultimately transforms the business model from the conventional method, where payments are initially made face-to-face with a certain amount of cash, into moderate ones, which allows for the completion of long-distance transactions through the use of payments in a matter of seconds (Bank Indonesia, 2020).

The financial market has benefited from economic digitization since customers can now easily access a wide range of financial products. Consistent with the TAM model, where perceptions of convenience and perceived benefits will have an impact on greater use of financial technology, which will support the achievement of inclusive financial implementation and make financial services more widely available and accessible to those who previously had difficulty accessing them, the presence of financial technology in the financial world will undoubtedly make MSME access to various types of financial products easier. This is in accordance with previous research conducted by Nurohman et al. (2021) which highlights the positive relationship between financial technology and financial inclusion. Therefore, the first hypothesis developed for this study is of the following:
H_1: Financial technology has a positive effect on MSME Financial Inclusion

Financial Literacy and MSMEs Financial Inclusion

Financial literacy refers to a set of knowledge, abilities, and values that affect attitudes and behaviours and enable individuals to make higher quality decision-making and financial management in order to prosper (Otoritas Jasa Keuangan, 2016). An individual with a strong level of financial literacy can access and utilize financial goods and services with ease, through the application of information and varied facilities. This trend will most likely promote awareness of and use of financial goods and services among other potential users, which will lead to greater

financial inclusion in society (Salsabella & Handri, 2022). In alignment with this, research conducted by Kusuma (2020) and Irman et al. (2021) shows that there is a positive correlation between financial inclusion and financial literacy. Consequently, the following is the second hypothesis put forth in this study:
H_2: Financial Literacy has a positive effect on MSME Financial Inclusion

Financial Technology and the Sustainability of MSMEs

Financial technology entails the use of technology in the financial sector that generally results in service goods, new business models, and/or technology that affects the efficiency, smoothness, security, and dependability of payment systems (Bank Indonesia, 2017). The presence of financial technology makes transactions between sellers and buyers easier. Using financial technology, transactions may be completed even when vendors (sellers) and purchasers (buyers) are not present at the same time or at the same location as required for traditional payments (Nurohman et al., 2021). This is relatively consistent with the TAM model, according to which perceived usefulness and convenience will influence the increased use of financial technology and lead to benefits for efficiency and security in transactions as well as a sharp rise in transactions at MSMEs. This may boost MSMEs' sales, which will in turn be most beneficial to overall sustainability. Based on research conducted by Nurohman et al. (2021), the presence of financial technology has a positive effect on the sustainability of MSMEs. In addition, the research findings of Ardiansyah (2019) also suggested that financial technology will assist in resolving the issue of unequal distribution of MSMEs in order to ensure MSMEs survival. Based on the above explanations, the third hypothesis proposed in this study is as follows:
H_3: Financial technology has a positive effect on the sustainability of MSMEs.

Financial Literacy and the Sustainability of MSMEs

Understanding fundamental financial concepts and having the capacity to work with numbers in financial contexts are both components of financial literacy (Lusardi, 2019). To more effectively control financial resources and achieve the finest business performance, a business owner, more often than not, requires financial expertise. It is sufficient to assert that MSME entrepreneurs also require financial literacy, particularly when compiling financial reports for their businesses. In this case, an individual perspective is especially affected by their level of financial literacy, and so this mindset in turn affects the decisions they make about their money and how to control them (Hilmawati & Kusumaningtias, 2021). An individual with a good level of financial literacy has a higher tendency to run his/her business more effectively and make the right decisions to maintain business continuity. According to research conducted by Rahayu and Musdholifahi (2017), the more financially literate a business owner is, the more equipped he or she will be to make wise financial and commercial decisions that will increase the sustainability of his or her company. This is also corroborated by the study of Aribawa (2016), which found that as financial literacy increases, so does the capacity to increase business sustainability. Accordingly, the following is the fourth hypothesis put out in this study:
H_4: Financial Literacy has a positive effect on the sustainability of MSMEs.

Financial Inclusion as a Mediating Variable on the Relationship between Financial Technology, Financial Literacy, and the Sustainability of MSMEs

MSMEs need financial solutions for the survival of their entities, especially in supplying sufficient equity to fund operational needs (Nurohman et al., 2021). To fulfil this need, the level of financial literacy of managers is required to find and decide which potential funding sources can help them. The existence of products in the financial technology sector also has the potential to increase opportunities to raise more funds through online money lending platforms and streamline consumer financial transactions to increase cash flow. Financial literacy and financial technology will have more impact on the development of MSMEs if people's accessibility to financial products offered by financial institutions is easily accessible (financial inclusion) (Umar, 2017). Access to financial institutions, products and services is needed to better support MSME owners who have the knowledge and competence to utilize financial products and services. This will enable these industry players to transact easily and gain access to capital that will strengthen the sustainability of MSMEs. The presence of financial technology and good financial literacy go hand in hand to further enhance financial inclusion, assisting MSMEs in maintaining their company operations. Research conducted by Nurohman et al. (2021) stresses this point in its findings which shows that financial inclusion imposes a positive effect on the sustainability of MSMEs. On that note, the fifth hypothesis proposed in this study is as follows:

H_5: Financial Inclusion has a positive effect mediating the Influence of Financial Technology and Financial Literacy on the Sustainability of MSMEs.

Research Methods

The sample used in this study included a total of 100 MSMEs registered in the Dinas Koperasi dan UKM (Disperindagkop) Sleman for the year 2021. The sampling method in this study was non-probability, namely convenience sampling. This method was chosen because of the limited resources the researchers had to reach the 89,917 MSMEs in Sleman. So, the researcher decided to make only the most easily accessible MSMEs as the sample of this study, provided that the MSMEs were registered with the Sleman Cooperative and SME Office.

Primary data needed in this study were collected directly from MSME respondents through the distribution of online and offline questionnaires. The questionnaire that was distributed contained a closed question formulation for each research variable and respondents only needed to answer with a choice in the form of a 6-point Likert scale. Research variables used in this study:

Financial technology is the phenomenon of combining financial and technological aspects to create goods and services for the financial system that affects both the stability of the currency and the stability of the financial system (Bank Indonesia, 2017). For this study specifically, financial technology is measured according to research conducted by Yulianasari and Mahrina (2021) that is summarized as follows:

a. Perceived Usefulness is an idea concerning the use of information technology that can improve performance and provide benefits for its users.
b. Perceived Ease of Use is an indication that a system is not only intended to be user-friendly but also makes it simpler for users to execute their tasks.
c. Perceived of Risk is a perception of uncertainty and unwanted consequences in carrying out a certain activity.

Financial literacy refers to a set of knowledge, abilities, and values that affect attitudes and behaviours and enable individuals to make higher-quality decision-making and financial management in order to prosper (Otoritas Jasa Keuangan, 2016). In conformity to the study of Lusimbo and Muturi (2016), the financial literacy indicators used in this research are as follows:

a. Debt literacy, which asserts a) MSME owners are able to pay the instalments maximum at maturity; b) MSME owners have sufficient information about requirements between credit provider institutions; c) MSME owners have the ability to manage debt.
b. Financial recording, which includes a) MSME owners are able to compile financial reports for their business, b) MSME owners are able to calculate the cost of goods sold (COGS) of their products, c) MSME owners can determine the amount of profits and expenses of their business.

The mediating variable in this study is financial inclusion, which underlines the accessibility of the general public to various financial institutions so that they may benefit from the financial goods and services they provide. The fundamental objective of financial inclusion is to increase society's well-being (Otoritas Jasa Keuangan, 2016). Financial inclusion can be measured using the following dimensions based on research conducted by Yanti (2019).

a. The Access Dimension, which encompasses ease of access to finance and easy access to financial services.
b. Dimensions of Use, which includes having knowledge of the availability of financial services and products as well as time and regularity of using such services.
c. The Quality Dimension, which takes into account efficiency and accuracy in service delivery and financial institutions' provision of suitable services.
d. The Welfare Dimension, which includes credit provided by financial institutions provides additional MSME capital and sufficient financing and credit are provided.

The dependent variable in this study is MSMEs' Sustainability, which is the stability of business conditions. Sustainability is a process that involves growth, development, and strategies to maintain business continuity (Widayanti et al., 2017). The MSME sustainability variable can be measured through the perceptions of MSME managers or owners, which according to Eresia-Eke and Raath (2013), pertains to the following factors:

a. Financial Growth, measured through Changes in total assets dan Changes in profit.
b. Strategic Growth measured through Changes in the production volumes.
c. Structural Growth measured through Changes in the number of employees.

Results and Discussion

The tests carried out in this study consist of descriptive analysis tests, validity tests, reliability tests, measurement model tests, the goodness of fit tests, path coefficient tests, and indirect effect tests.

Validity and Reliability Test

Based on the results of the validity test, it can be known that all variable items had a loading factor value above 0.50. All variable items used in this study can then be declared to be valid and thus met convergent validity. The results of the reliability test display that all variables have a composite reliability value and Cronbach alpha above 0.70, thus it can be concluded that all variable items are reliable.

Structural Model Test

The structural model test is used to determine the strength of the relationship between variables. The structural model is formed in a flowchart to see the correlation between variables. The relationship between variables is associated with the sign of arrows. Figure 1 illustrates the structural model test applied in this study.

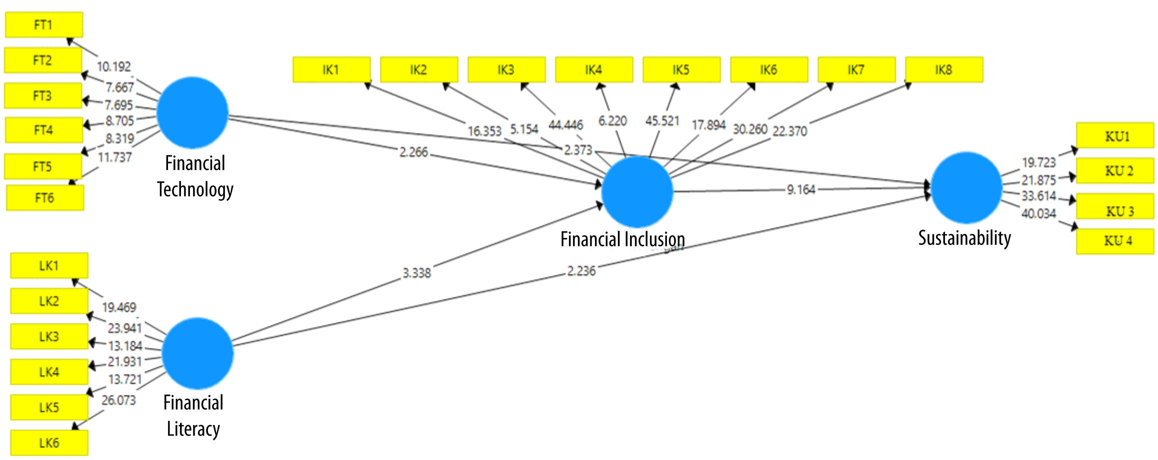

Figure 1. Results of Structural Model Test

Goodness of Fit Test

The goodness of fit test is used to determine the combined performance of the measurement model and the structural model. The goodness of fit test can specify the suitability of the description of the research sample. Based on the results of the goodness of fit test, the R-square value for financial inclusion is 0.506 and the R-square value for MSME sustainability is 0.822. Therefore, it is safe to conclude that the financial inclusion construct is explained by the financial technology and financial literacy constructs by 50.6%, while 49.4% is explained by other constructs. Meanwhile, the MSME sustainability construct is explained by the constructs of financial technology, financial literacy and financial inclusion of 82.2% and 17.8% explained by other constructs.

Hypothesis Test

Hypothesis testing in this study uses two tests, path coefficient test and indirect effect test. The path coefficient test aims to find the direct effect of a variable that affects the affected variable (proof of H_1-H_4). Meanwhile, the indirect effect test is to test the hypothesis of the indirect effect of the influencing variable (exogenous) on the affected variable (endogenous) mediated by the intervening variable (proof of H5). The results of the path coefficient test are presented in Table 1 and the results of the indirect effect test are presented in Table 2.

Table 1. Results of Path Coefficient Test

Hypothesis	Original Sample	T statistic	P values
FT → FI	0.335	2.266	0.012
FT → MS	0.209	2.373	0.009
FI → MS	0.641	9.164	0.000
FL → FI	0.434	3.338	0.000
FL → MS	0.150	2.236	0.013

The standard for hypothesis test results to be accepted is with a T statistic value greater than the T table df (N-1 = 100) of 1.660 and a P-value below 0.05. It can be seen in Table 1, that there is a significant influence between financial technology and financial inclusion as shown by the T-statistic value (2.266) > T-table value (1.660) and P-value (0.012) < 0.05. Next, there is a significant influence between financial technology and MSMEs' sustainability, which is indicated by the T-statistic value (2.373) > T-table value (1.660) and P-value (0.009) < 0.05. Then there is a significant influence between financial inclusion and MSMEs' sustainability, which is indicated by the T-statistic value (9.164) > T-table value (1.660) and P-value (0.000) < 0.05. Then there is a significant influence between financial literacy and financial inclusion, which is indicated by the T-statistic value (3.338) > T-table value (1.660) and P-value (0.000) < 0.05. Finally, there is a significant influence between financial literacy and MSMEs' sustainability, which is indicated by the T-statistic value (2.236) > T-table value (1.660) and P-value (0.013) < 0.05. In conclusion, all variables have a T statistic value above that is greater than the T table and a P-value below 0.05.

Table 2. Results of *Indirect Effect Test*

Hypothesis	Original Sample	T Statistic	P Values
Financial Technology → Financial Inclusion → MSME Sustainability	0.215	2.523	0.006
Financial Inclusion → Financial Inclusion → MSME Sustainability	0.278	2.850	0.002

Based on Table 2, it can be seen that the independent variable financial technology has an indirect effect (0.215) on the sustainability of MSMEs through financial inclusion and the independent variable financial literacy has an indirect effect of (0.278) on the sustainability of

MSMEs through financial inclusion. Both values are higher than path coefficient test of financial technology on MSME sustainability and financial literacy on MSME sustainability. This shows that financial inclusion can strengthen the relationship between financial technology and financial literacy to MSME sustainability.

Financial Technology Has a Positive Influence on Financial Inclusion

Based on the results of the Path Coefficient test in Table 1, it shows an Original Sample value of 0.335, a T statistic value of 2.266 and a P value of 0.012. Subsequently, it can be claimed that financial technology has a positive impact on financial inclusion; the first hypothesis is accepted. This demonstrates that financial technology has been successful in providing a different way for people to become financially included. Financial inclusion obstacles such as restricted access to formal financial institutions, ignorance, and the complexity of the goods supplied by financial institutions can be solved because of the advancement of financial technology. For MSME business owners, the introduction of financial technology innovation is indeed a breath of fresh air. Financial technology would be a tool that entrepreneurs may use to finance their businesses. Financial inclusion is directly impacted by MSME business players' use of financial technology. The availability of financial technology, which may remove barriers to information access on financial services by making everything accessible online, has a positive impact on MSME businesspeople. This result is in fact in alignment with statements declared by Nurohman et al. (2021) and Marini et al. (2020) that financial technology has a major impact on financial inclusion.

Financial Literacy Has a Positive Influence on Financial Inclusion

Based on the results of the Path Coefficient test in Table 1, it shows an Original Sample value of 0.434, a T statistic value of 3.338 and a P value of 0.000. Thus, it is safe to interpret that financial literacy imposes a positive and significant effect on financial inclusion. This also means that the hypothesis for financial literacy hypothesis having a positive influence on financial inclusion to be accepted. The research findings show that the higher the level of financial literacy, it would most likely be followed by the higher the level of financial inclusion. Individuals who are already familiar with financial service institutions and are skilled in utilizing financial products and services need to be supported by the availability of access to financial institutions, products and services so that they can gain more access to capital that helps develop their MSME businesses. In other words, high financial literacy among MSME business actors will affect financial inclusion. The results of the research are in conformity with the findings of Irman et al. (2021) and Kusuma (2020) that financial literacy affects financial inclusion in a positive manner.

Financial Technology Has a Positive Influence on MSME Sustainability

The results of the Path Coefficient test in Table 1 above shows an Original Sample value of 0.209, a T statistic value of 2.373 and a P value of 0.009. Therefore, it can be derived that financial technology significantly improves the sustainability of MSMEs. Therefore, it may be argued that the hypothesis of financial technology having a positive effect on MSME's sustainability is true. This explains how financial technology may help MSMEs perform better financially allowing them to grow effectively. The presence of financial technology, which can assist MSME business actors in obtaining business capital and facilitate transactions for MSME business actors such that their cash flow is improved, can help address the problems of relatively low business capital and difficulties for MSME business actors in conducting transactions. The findings of the research are in accordance with the assertion made by Nurohman et al. (2021) and Ardiansyah (2019) that financial technology does have a positive influence on the sustainability of MSMEs.

Financial Literacy Has a Positive Influence on MSME Sustainability

Based on the results of the Path Coefficient test in Table 1, it shows an Original Sample value of 0.150, a T statistic value of 2.236 and a P value of 0.013. This essentially suggests that the sustainability of MSMEs is positively and significantly impacted by financial literacy. Hence, it is possible to conclude that the financial literacy hypothesis for its positive impact on MSMEs is true. This further stresses that the ability of MSME business owners to manage their businesses with managerial and financial decisions in order to increase the sustainability of their operations increases along with their degree of financial literacy. As stated by Hilmawati & Kusumaningtias (2021), a business requires high-quality, superior resources to sustain its growth. The financial literacy of business owners is a resource that may be applied in this situation. The results of this research are also in line with the conclusion made by Hilmawati & Kusumaningtias (2021) and Rahayu & Musdholifahi (2017) which points out how financial literacy affects the sustainability of MSMEs positively.

Financial Inclusion Has a Positive Influence Mediating the Influence of Financial Technology and Financial Literacy on MSME Sustainability

Based on the results of the indirect effect test in Table 2, it shows that the independent variable financial technology has an indirect effect of 0.215 on the sustainability of MSMEs through Financial Inclusion, this value is greater than the direct effect of 0.209. This indicates that the independent variable financial technology's effect on the dependent variable, MSME sustainability, is mediated by the financial inclusion variable. The independent variable financial literacy, on the other hand, has an indirect effect of 0.278, which is bigger than the direct effect of 0.150, on the sustainability of MSMEs through financial inclusion. Further, it can be said that the hypothesis of financial inclusion has a positive effect on mediating the effect of financial technology and financial literacy on MSME sustainability is accepted. Thus, the impact of financial technology and financial literacy on the viability of MSMEs will grow as financial inclusion levels rise. With the existence of financial technology, it can support MSME business players in terms of capital provision and payment systems. Financial inclusion is significantly and favorably controlled by financial technology (Marini et al., 2020). MSMEs can always access and use financial goods and services once they have a high degree of financial literacy, which will result in greater financial inclusion (Salsabella & Handri, 2022).

Access to financial institutions, goods, and services must be made possible for MSME actors who are knowledgeable about financial service providers and adept at utilizing financial products and services, so that business actors have access to capital and grow their MSMEs. When MSME business actors have access to a variety of financial goods and services, this can assist them in obtaining business capital and facilitating transactions, hence increasing business earnings that can aid MSMEs in maintaining their operations. Financial inclusion will surely improve with the implementation of financial technology and strong financial literacy, enabling MSMEs to maintain their business operations. According to Nurohman et al. (2021), there is a strong correlation between financial inclusion and the viability of MSME.

Conclusion

The results of this study indicate that financial technology and financial literacy have a positive and significant influence on financial inclusion. The availability of financial technology has a positive impact on MSME business actors by facilitating access to information about financial services. Individuals with financial literacy will be more skilled in accessing financial institutions, products and services. Furthermore, financial technology and financial literacy also have a positive and significant effect on the sustainability of MSMEs. The presence of financial technology makes it easier for MSMEs to overcome capital constraints by facilitating access to loan applications and financial transactions. This has a positive impact on the cash flow of MSMEs, allowing their businesses to run more smoothly. The level of financial literacy also affects the mindset and financial management skills of MSMEs, allowing them to make wiser managerial decisions and optimize the use of available financial resources.

Finally, financial inclusion acts as a significant mediating factor and has a positive effect on the relationship between financial technology and financial literacy with MSME sustainability. Good financial inclusion engagement enables MSME players to gain fair and equitable access to various financial services, which in turn supports their business growth and sustainability. Overall, this research provides evidence that financial technology and financial literacy play an important role in fostering financial inclusion and improving MSME sustainability. Therefore, it is important that we priorities the development of financial technology and the improvement of financial literacy as key efforts in supporting the growth of the MSME sector.

MSME players can use the findings of this study as a guide to improve the utilization of financial technology in supporting MSME operations. It is important for the government and related institutions to work together to improve access to financial institutions, products and services, as well as increase public understanding of financial literacy to strengthen the MSME sector. One of the efforts that the government can make is to provide regular assistance in the form of socialization, monitoring or providing additional capital loans to MSME players. With these steps, it is expected that MSMEs can grow and develop better, thus making a significant contribution to the country's economy.

This study has limitation in the number of samples obtained using the convenience sampling method, involving only 100 respondents, and the results of the suitability test for financial inclusion show a value of 50.6%. Therefore, future research is expected to use a more representative method and sample size to describe the MSME population within a certain scope. In addition, future research is also expected to focus on other variables not examined in this study, in order to gain a better understanding of what factors influence financial inclusion.

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