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Improving MSME performance through financial literacy, financial technology, and financial inclusion

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Abstract

Financial literacy is one of the key abilities and skills MSME business actors require to manage their finances and achieve successful business performance. This study's purpose was to analyze the impact of financial and technological literacy on improving MSME performance in Medan City and the mediation of this relationship by financial inclusion. The research had a quantitative descriptive methodology with an explanatory research approach. Data were collected from a sample of 100 business actors in Medan City. The data analysis technique used was Structural Equation Modelling - Partial Least Squares (SEM-PLS). The results showed that financial literacy, financial technology, and financial inclusion affected the performance of MSMEs in Medan City, and financial inclusion did not mediate the effects of financial literacy and financial technology on the performance of MSMEs in Medan City. The novelty of this research is its capacity to inform stakeholders of the importance of the financial literacy of MSME business actors; therefore, stakeholders must strive to educate MSME business actors on the importance of financial literacy.

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1. Introduction

Micro, small, and medium enterprises (MSMEs) play a significant role in national economies; in particular, they are the pillars of a country's economy when facing an economic crisis. When the global economic crisis occurred, Indonesia's economic conditions deteriorated rapidly. During the crisis from 1997 to 1998, only the SME sector was able to withstand the crisis conditions (Abidin, 2015; Mujanah et al., 2022). According to data released by the Central Statistics Agency following the economic crisis, the number of MSMEs did not decrease; rather, their development increased, allowing them to go from employing 65 million workers to 114 million in 2013. This phenomenon explains why MSMEs are productive businesses that contribute to macroeconomic development in Indonesia and affect other sectors. In addition to the growing number of business units and entrepreneurs, the significant role of MSMEs is highlighted by their contribution to the national income and employment provision (Suci, 2017). MSMEs play a significant role in labor absorption and the distribution of development outcomes. The contribution of MSMEs to the Gross Domestic Product (GDP) is also encouraging. According to the Ministry of Cooperatives and MSMEs, their contribution was 5,440,007.9 billion Rp in 2014. At that time, 114,144,082 persons were employed in the MSME labor force (Depkop, 2017).

Table 1. Development of MSMEs in Indonesia.

Indicator	Year				
	2014	2015	2016	2017	2018
Total MSMEs (Unit)	57,895,721	59,262,772	61,651,177	62,922,617	64,194,057

Source: Ministry of cooperatives and SMEs.

Table 1 demonstrates the increasing contribution of MSMEs to the national economy. This is also integral to the government's role. Between 2014 and 2017, it was anticipated that the number of MSMEs would exceed 57,800,000 units, and in 2018, it was estimated that the number of MSMEs would surpass 64,000,000 units (Depkop, 2017). The number of MSMEs has increased year after year in all Indonesian cities and regions. One of these is Medan City, which plays a significant role in North Sumatra's economic growth (Hutagaol, 2019).

In terms of physical, economic, social, and cultural development, Medan is experiencing rapid growth. The city of Medan is one of Indonesia's metropolitan cities and a driving force of the country's economy. One type of development occurring in the city of Medan is the development of entrepreneurial programs in the economic sector (Simamora, 2017). The economic crisis has not hindered the activities of Medan's MSMEs, which continue to operate. It is impossible to separate the development of small and medium-sized firms from the entrepreneurial role of MSME actors. Experience in developed nations has shown that MSMEs are a source of production and technological innovation, increasing the number of creative and inventive entrepreneurs and helping to create a competent and adaptable workforce in the production process to meet the continuously changing market demand (Sari, 2014; Syafar, Du, & Gao, 2015).

Table 2. Development of MSMEs in North Sumatra.

Indicator	Year				
	2014	**2015**	**2016**	**2017**	**2018**
Total MSMEs (Unit)	2,855,399	2,855,549	2,855,847	2,857,124	2,857,134

Source: North Sumatra cooperatives and SMEs office.

Table 2, based on data from the Department of Cooperatives and SMEs of Medan City, shows that the number of MSMEs increased by over 33,000 units between 2014 and 2018. This provides further evidence that MSMEs have a significant impact on the national economy. Based on the data provided by the Department of Cooperatives and SMEs, it is possible to conclude that MSMEs can contribute significantly to the economic growth of Medan City (Depkop, 2018).

For MSMEs to develop in Indonesia, their owners and managers must be able to compete with other MSMEs. This encourages MSME actors to establish new and different businesses, with a focus on performance. Most owners of MSMEs lack broad perspectives and knowledge; hence, they are less focused on the long term. Due to a lack of knowledge on the subject of management, efforts to increase effectiveness are typically based on convention. Consequently, actors frequently mismeasure business productivity, which eventually impacts business performance (Wirastuti, M.S, & Kurniasari, 2009).

The development of MSMEs is hampered by a variety of challenges, both internal and external. First, the internal factors include inadequate capital, production, marketing, and human resources. Second, external variables take the form of difficulties generated by SME developers and managers. Some of these issues influence the performance of MSMEs if they are not addressed. To address these issues, particularly in terms of capital and marketing, the financial inclusion model can be applied (Irmawati, Damelia, & Puspita, 2013).

Financial inclusion is the endeavor to make the financial system accessible to all levels of society to promote economic growth and eradicate poverty. Financial inclusion seeks to eliminate all barriers to the public's use of financial services and infrastructure. This program aims to foster economic growth that is increasingly inclusive and sustainable, as well as deliver community welfare benefits (Nurjannah, 2017).

Due to the high level of unbanked (not meeting bank loan requirements) MSMEs caused by the poverty gap, low MSME funding, high micro-credit interest rates, lack of MSME management capabilities, and limited distribution channels for financial services, the adoption of financial inclusion is crucial (Yanti, 2019).

According to the findings of a Financial Services Authority survey of 2019, the financial inclusion index was 76.19 percent (see Figure 1). This percentage had increased compared to 67.8 percent found in the 2016 survey. Thus, over those three years, there was an 8.39 percent growth in access to financial products and services or financial inclusion. This increase was the result of the combined efforts of the government, the Financial Services Authority, allied ministries and institutions, the financial services industry, and several other parties, which continue to strive toward financial literacy and social inclusion (Financial Services Authority, 2019).

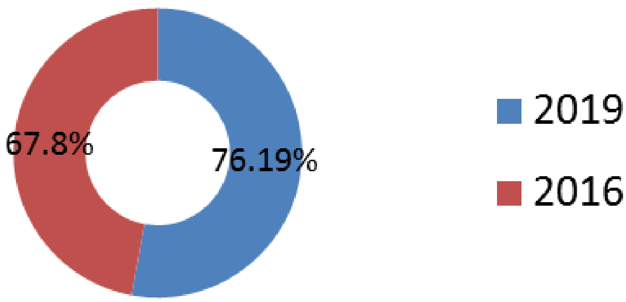

Figure 1. Financial inclusion index for 2016 and 2019.
Source: Financial services authority.

The financial inclusion index in North Sumatra, in contrast, was 93.98 percent. This number was the second highest in the national index of financial inclusion, behind *Daerah Khusus Ibukota* (DKI) Jakarta. This demonstrates that a more prosperous North Sumatra may open 1,246 new customer accounts with a transaction or fundraising amount of Indonesian Rupiah (IDR) 2.61 billion. The growth of MSMEs in Medan has an impact on the economic prosperity of the city's residents because MSMEs provide expansive business opportunities in a variety of economic sectors. However, MSME entrepreneurs in Medan continue to face difficulties developing their businesses due to a lack of capital. Financial troubles are not only caused by low income, but also by poor financial management, such as the misuse of credit, lack of financial planning, and lack of savings (Yanti, 2019).

The intent of the Financial Services Authority of North Sumatra to expand financial inclusion was carried out through the Laku Pandai program with Non-Cash Food Assistance (NCFA) and the development of the Regional Financial Access Acceleration Team (RFAAT). The Laku Pandai initiative with NCFA and RFAAT is regarded as an alternative solution for the Medan area, ensuring that MSME actors in remote locations can be served, as well as supporting banks in reaching consumers without having to construct new branch offices. However, the North Sumatra Financial Services Authority still needs to establish an integrated system to prepare financial inclusion materials that align with the conditions and needs of MSME actors in Medan. Financial inclusion requires the analysis of numerous financial products and services in order to make wise financial decisions. These challenges suggest that financial inclusion will not develop by itself. Financial inclusion supports the effective use of products and helps business actors build skills to use financial products according to their needs. Financial inclusion makes it possible to change the perspective of economic actors to increase their money and profits (Sanistasya, Rahardjo, & Iqbal, 2019).

Financial inclusion can improve the capacity of MSME actors to use financial services and receive a direct benefit from financial institutions. The higher the degree of financial inclusion among MSMEs, the greater the overall improvement in a nation's financial stability. This is significant because it can optimize funding sources in the region, thereby enabling MSMEs to become more productive and develop. Financial management plays a role in deciding the degree to which the performance of MSMEs can improve (Sanistasya et al., 2019).

In general, MSMEs frequently endure developmental delays. This is due to a variety of unresolved conventional problems (closed-loop problems), such as challenges with human resource capacity. MSMEs have a hard time competing with larger businesses due to ownership, financing, marketing, and other challenges relating to the business management of major corporations. This is evident in the absence of the concept of continuous innovation and the inconsistency of the company's main business operations. Finally, the development of MSMEs' long-term performance in the creative industries is typically not well-directed. Consequently, strategic initiatives are required to enhance the performance and sustainability of MSMEs. One method to achieve this is to increase MSME actors' financial knowledge so that their management abilities are more commensurate with those of large company managers (Aribawa, 2016).

In terms of productivity, export contribution, global and regional production participation, and contribution to added value, the performance of MSMEs in Indonesia remains considerably below that of MSMEs in other Association of Southeast Asian Nations (ASEAN) countries. Low levels of education and expertise, difficulty in acquiring permits for MSMEs, lack of access to financing, and lack of infrastructural support contribute to the low competitiveness of MSMEs in Indonesia. Lack of access to financing may be due to the lack of knowledge and understanding of financial institutions among MSME owners. This understanding is referred to as financial literacy (Djuwita & Yusuf, 2018).

The financial literacy of MSMEs is the ability of managers to record financial statements, manage debt, and prepare budgets. Recording financial statements requires the MSME management to have the capacity to record business activities, business income and costs, business profitability, and other performance-related topics. Because MSMEs are often unable to create their own financial reports, the majority of commercial banks are unwilling to grant capital credit. Financial reporting is crucial for MSMEs to determine their business's success. Small and medium-sized enterprises can fund their working capital and investments in two ways, according to the debt management literature, i.e., there are two primary funding sources. First, SMBs can utilize savings; secondly, they can contract obligations to third parties. When a business decides to borrow, the percentage of personal capital to external capital/debt decreases. Budget planning proficiency can be used to plan future business activities (Amri & Iramani, 2018).

A high level of financial literacy is necessary to prevent financial difficulties. Financial difficulties are not caused solely by low income, but also by mistakes in financial management, such as the misuse of credit, lack of financial planning, and lack of savings. Therefore, financial literacy is a prerequisite for prosperity (Akmal & Saputra, 2016).

Financial literacy affects a person's way of thinking about financial conditions and influences business owners' strategic financial decision-making and management. The ability of business owners to manage their finances is important for business performance and continuity. Business owners must acquire financial knowledge to improve their company's performance. This empowers MSMEs to expand their businesses (Kasendah & Wijayangka, 2019).

According to the findings of a Financial Services Authority survey in 2019, the financial literacy index was 38.03 percent (see Figure 2). Although this is low, the percentage had increased from 29.7 percent since 2016.

Thus, there was an 8.33 percent growth in public financial understanding (financial literacy) over three years (Financial Services Authority, 2019).

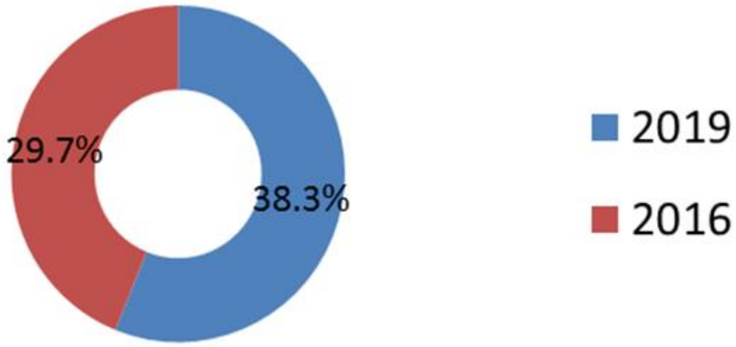

Figure 2. Financial literacy index 2016 and 2019.
Source: Financial Services Authority (2019).

Financial literacy in North Sumatra is at 38.3 percent, which is higher than the national average. This demonstrates that North Sumatrans have an excellent financial understanding. The Government of North Sumatra also expects that the increase in financial literacy will continue each year, so that MSME actors in North Sumatra, particularly in the city of Medan, will be able to effectively manage their finances (Editorial, 2019). Financial literacy is important for business actors, particularly in MSMEs, as it allows them to choose and utilize financial products and services that meet their needs, engage in more effective financial planning, and avoid engaging in activities involving unclear financial instruments (Djuwita & Yusuf, 2018).

Financial inclusion is incorporated into the financial literacy program to strengthen the ability of MSME players to utilize financial services and obtain direct benefits from financial institutions. The greater the financial inclusion among MSMEs, the greater the country's long-term financial stability. This is significant since optimizing local sources of funding helps MSMEs grow and be more productive. MSME performance is partially determined by financial management. With financial literacy and inclusion, business actors can utilize their competencies in the financial sector to make a variety of decisions. Financially literate MSMEs are able to implement strategic plans to detect opportunities and threats, have access to finance, and can respond to changes in the unstable economic climate in a way that provides innovative and focused solutions to improve MSME performance (Sanistasya et al., 2019).

Not just Indonesia but the entire world is presently experiencing rapid technological development (Syafar, Gao, & Du, 2014). Because technology is evolving rapidly, it has invaded numerous industries, including the financial sector. Financial technology refers to technologies that support financial services. Many application improvements in financial services, such as payment instruments, loan instruments, and others, have grown popular in the digital age as a result of the development of financial technology (Muzdalifa, Rahma, & Novalia, 2018).

The term financial technology is used for financial services that employ technology to make it easier for customers to carry out transactions anywhere and at any time (Syafar, Gao, & Du, 2014). This new financial model was introduced in 2004 by Zopa, a financial institution in the UK that runs money lending services, as an application of information technology in the financial sector. Financial technology has various functions, which are developing rapidly. Currently, financial technology deals with electronic money, virtual accounts, aggregators, lending, crowdfunding, and other online financial transactions. As for financial technology operators, some of them were founded by conventional-based companies, but not a few are start-ups (Rizal, Mualina, & Kostini, 2018).

Financial technology allows transactions without a bank account. Although financial technology is not a bank itself, it is regulated by Bank Indonesia to protect consumers and the public. Financial technology enterprises must register with Bank Indonesia or the Financial Services Authority. Bank Indonesia has noted that financial technology can replace banks. Financial technology can 1) establish a market for business actors, 2) become a tool for payment, settlement, and clearing, 3) facilitate more efficient investments, 4) mitigate risks from conventional payment systems, and 5) help parties save, borrow, and participate in equity.

Financial technology, like other economic developments, is not accepted by all Indonesians. However, financial technology boosts the efficiency and effectiveness of the economy. Financial technology has assisted MSMEs without bank access. It helps MSMEs grow by facilitating transactions and loans (Rahardjo, Ikhwan, & Siharis, 2019).

Financial technology, in the form of financial services such as crowdfunding, mobile payments, and money transfer services, revolutionizes the start-up business, alters consumer behavior and expectations, and necessitates regulations to protect them, including consumer protection, protection of user funds, and protection against potential loss or decline in financial capacity. Whether through misuse, fraud, or force majeure, financial technology activities that are prone to data misuse, whether purposeful or inadvertent, pose a risk to consumers (Wibowo, 2016).

Regulation and supervision are important to the long-term sustainability of financial technology in Indonesia. This pertains to the legality of the business being conducted, as the adoption of financial technology poses possible hazards to consumer protection, the integrity of the financial system, payment systems, and economic stability. The Financial Services Authority regulates and supervises to mitigate these risks and promote sustainable and stable economic growth (Wijayanti, 2018).

The Financial Services Authority oversees financial technology businesses with several strict rules, which were issued at the end of 2016. One thing that will later be made clear relates to the minimum capital limit for the financial technology industry. One of the reasons for this regulation is to protect consumers of information technology-based lending and borrowing services / financial technology peer-to-peer (P2P) lending, which is officially regulated by the Financial Services Authority in Regulation Number 77/POJK.01/2016 (Financial Services Authority, 2016).

As a result of modern society's need for everything to operate quickly and easily, devoid of constraints and rules, an increasing number of people are utilizing financial technology. This demonstrates that comfort, security, transaction suitability, and transaction simplicity are elements that encourage MSME actors to use financial technology, along with matters pertaining to supporting factors, such as ease of recording, ease of transaction processing, and sales growth (Sugiarti, Diana, & Mawardi, 2019).

The emergence of financial technology innovations presents businesses with a refreshing change. Financial technology can facilitate business people's access to financial products. Financial technology can be utilized by business actors to finance their firms. The role of financial technology is not restricted to funding corporate capital; it has also expanded to include digital payment services and financial regulators, among others. In conjunction with the advancement of information and communication technology, technology-based financial technology services have come to play an important role in Indonesia (Sugiarti et al., 2019)

Collaboration between financial technology companies and financial institutions can increase financial inclusion for MSMEs in Indonesia. This is possible thanks to the current rapid development of technology, which has permeated all sectors, including the financial sector. Therefore, the introduction of technology into a financial business will transform it into the digital era. The implementation of financial technology in the banking industry makes it simpler and more convenient for businesspeople, particularly MSMEs, to access financial service products and apply for financing without having to visit an office in person (Muzdalifa et al., 2018).

2. Literature Study

2.1. Financial Literacy

Financial literacy is an individual's awareness and knowledge of basic financial concepts, including knowledge of financial instruments and their application in business and daily life, such as financial management, savings and loans, insurance, and investment. The greater an individual's financial literacy, the greater their financial conduct and financial sagacity in managing their finances effectively (Gunawan, Pulungan, & Koto, 2019; Pulungan, 2017).

After acquiring the necessary knowledge and abilities, the public must also have confidence in financial service institutions and their products and services. Everyone must have confidence in their own abilities, not only in the financial services industry. This confidence includes the ability to record investment and expenditure plans, create budgets, and other financial tasks (Tustin, 2010).

According to the Financial Services Authority (2016), the level of financial literacy is influenced by gender, education level, and income. Age, financial and numerical knowledge of financial concepts, household income, as well as education and position also influence financial literacy (Suryanto & Rasmini, 2018).

Widayati (2012) developed 15 financial literacy indicators adapted to conditions in Indonesia, namely: 1) looking for choices in a career, 2) understanding the factors that affect net income, 3) knowing sources of income, 4) knowing how to achieve prosperity and financial goals, 5) understanding budgeting, 6) analyzing risk, return, and liquidity, 8) evaluating investment alternatives, 9) analysing the effect of taxes and inflation on investment returns, 10) analyzing the advantages and disadvantages of debt, 11) knowing the purpose of credit and debtor rights, 12) explaining ways to avoid or fix debt problems, 13) knowing the basic laws of consumer protection in debt, 14) the ability to keep financial records, 15) understanding financial statements such as balance sheets and income and cash flows.

2.2. Financial Technology

Financial technology refers to innovative solutions in the development of applications, products, or business models in the financial services industry that employ technology (Chuen & Low, 2018). Bank Indonesia defines financial technology as the use of technology in the financial system to create new products, services, technologies, and/or business models, which can influence monetary stability, financial system stability, and/or the efficiency, smoothness, security, and dependability of payment systems. Consumers, businesses, and the economy as a whole have all benefited from the development of financial technology. However, if risks are not properly addressed, the financial system might be disrupted.

According to the World Bank, quoted in Nizar (2017), the financial technology industry comprises enterprises that use technology to improve the efficiency of financial systems and financial service delivery. The rise of financial technology is divisive among the Indonesian population, which is unprepared to accept changes to economic activities. On the other hand, financial technology offers the economy new opportunities to efficiently and effectively increase economic activity (Afifah, 2018). With mature rules, it can foster the growth of MSMEs by facilitating loan transactions (Rahardjo et al., 2019)

2.3. Financial Inclusion

Financial inclusion is a comprehensive activity that aims to eliminate all price and non-price obstacles to the public's access to and utilization of financial services (Yanti, 2019). Financial inclusion is also defined as the proportion of individuals and businesses that use financial products and services through the promotion of affordable, timely, and adequate access to expand their use in the community, which reflects public financial awareness of the community's economic welfare. Bank Indonesia also considers financial inclusion to be the right of all individuals to access and receive services from financial institutions in a timely, convenient, informative, and cost-effective manner.

The public, particularly those with low incomes, is particularly affected by financial inclusion. Without access to established financial institutions, they lack customer records, cannot qualify for loans, and cannot obtain insurance. Consequently, these community groups rely more on informal institutions, which are fraught with risks.

Research by Beck, Demirgüç-Kunt, and Levine (2007) in 99 countries in 2003–2004 showed that the factors that determine the reach of the financial sector are the same as those that determine the depth of the sector. These factors are the level of development as proxied by GDP per capita, the quality of institutions as proxied by the governance index, and credit information as proxied by the credit information index.

Ummah (2015) studied the factors that influence financial inclusion in Indonesia, including the size of the economy, the income distribution as indicated by the Gini index coefficient, the number of internet users, and the number of mobile phone users. However, the ratio of road length to unemployment did not affect the level of financial inclusion.

2.4. MSME Performance

The World Bank distinguishes three types of MSMEs, namely: 1. micro enterprises (with up to 10 employees), 2. small enterprises (10–30 employees), and 3. medium enterprises (30–300 employees) (Bank Indonesia, 2015).

Performance is the work accomplished by a person or organization to complete the responsibilities allocated to them, considering their skills, experience, sincerity, and time (Hasibuan, 2002). Another definition of performance is the overall result or level of success a person has within a certain time period in carrying out activities related to responsibilities, such as work results, predetermined and mutually agreed-upon goals, or criteria (Rivai, 2005). While a company's performance is a representation of the company's overall condition within a specific time period, it is the result of the company's operational actions in employing its resources (Srimindarti, 2004).

From these definitions of performance and MSMEs, it can be concluded that the performance of an MSME is the overall work achieved compared to the work targets or criteria that were predetermined and mutually agreed upon in a business entity with assets and criteria revenue specified by the law.

3. Methods

3.1. Research Type

This was a descriptive quantitative study investigating the impact of financial literacy and financial technology on the performance of Medan's MSMEs mediated by financial inclusion. A survey approach was used in this study to identify MSMEs' status, symptoms, and similarity of status by comparing them to the selected or established standards (Arikunto, 2010).

A descriptive quantitative study aims to describe the properties (characteristics) of a situation or object of research. The results are then presented in the form of a research report (Arikunto, 2010).

3.2. Place and Time of Research

This research was conducted in Medan City from April 2020 to August 2020.

3.3. Sampling Technique

a. Population

The population in this study were all MSMEs in Medan City.

Table 3. MSME population in Medan city.

Business sector	Total MSMEs	Percentage (%)
Production	301 businesses	38.94
Culinary	438 businesses	56.66
Service	31 businesses	4.02
Livestock and fisheries	3 businesses	0.38
Total	773 businesses	100

Source: Medan city cooperatives and MSMEs office, 2018.

Table 3 provides information on the MSMEs in Medan City. The largest sector of MSMEs in Medan City was the culinary sector, which included 438 culinary businesses; the smallest sector was livestock and fisheries, with only 3 businesses.

b. Sample

To achieve a reliable maximum likelihood estimate from a structural equation model (SEM), a sample size of 100–200 is suggested. Therefore, the researcher selected a sample size of 100–200 businesses to meet the prerequisite for the SEM-based data analysis method. To obtain the sample, a purposive sampling method was employed, in which the sample was selected based on several criteria to suit the needs of this research, namely, 1) using financial technology in business transactions, 2) being an MSME with capital or assets of 50–500 million, and 3) having been an MSME actor ≥ 1 year.

3.4. Data Collection Techniques

The researchers collected data using several methods to obtain information relevant to the topics to be addressed, primarily using a questionnaire that was filled out by the MSME actors who comprised the study sample. The measurement of the variables in this study was carried out by means of a Likert scale. A Likert scale makes it easier to present questions that can be comprehended by respondents and are easy to score from high to low. In addition, a Likert scale offers high reliability in delivering data on the intensity of a given set of attitudes.

3.5. Data Analysis Techniques

a. Descriptive Statistics

Descriptive statistics is a way of describing and interpreting objects as they are (Sangadji & Sopiah, 2010). The objective is to systematically describe the facts, objects, or subjects as they are to accurately document the facts and qualities of the item under study. Descriptive statistics include the presentation of data in tables and graphs, the data distribution, the calculation of the percentage distribution of respondents' answers (frequency distribution), and average, mean, and mode values, which were calculated using SmartPLS analysis software.

b. Structural Equation Model (SEM) Analysis

This study utilized a model of causality relationships. To evaluate the study's hypothesis, SEM was the analytic technique conducted using the Smart-PLS application. (Ferdinand, 2006) provided several reasons for using SEM as an analytical tool; SEM is suitable for use to confirm the nondimensionalization of various indicators of a construct and to test the suitability or consistency of a model based on the empirical data studied as well as the causality relationship between the factors observed in the model.

The stages of data analysis for the model using the variables described above are 1) analysis of the measurement model (outer model): (a) construct reliability and validity, (b) discriminant validity; 2) analysis of the measurement model (inner model): (a) R-squared, (b) F-squared; 3) hypothesis testing, namely, (a) direct effect, (b) indirect effect, (c) total effect (Juliandi, 2018).

4. Results and Discussion

4.1. Measurement Model Analysis (Outer Model)

The validity test results are apparent from the Heterotrait-Monotrait Ratio (HTMT) values in Table 4, which show that the validity value of each indicator is less than 0.9, meaning that the respondents understood all the answer options in the list of questions.

Table 4. Heterotrait-monotrait ratio *(HTMT)*

	Heterotrait-Monotrait ratio (HTMT)			
Variable	XI	X2	Y	Z
X1				
X2	0.84			
Y	0.65	0.87		
Z	0.48	0.79	0.53	

In Table 5, the composite reliability value shows that all variables utilized in this study were reliable since the reliability values were greater than 0.70. This indicates that the questionnaire results could be used in this study.

Table 5. Composite reliability.

Variable	Composite reliability
Financial literacy	0.90
Financial technology	0.79
Financial inclusion	0.91
MSME performance	0.84

4.2. Measurement Model Analysis (Outer Model)

a. R-Squared

R-squared is useful for predicting whether the model is good or bad (Juliandi, 2018). If the R^2 (adjusted) value is greater than 0.75, the model is substantial (strong); if the R^2 (adjusted) value is 0.50, the model is moderate, and if the R^2 (adjusted) value is 0.25, the model is weak (poor).

Table 6. R-squared.

Variable	R^2	R^2 *adjusted*
MSME performance	0.59	0.58
Financial inclusion	0.38	0.37

In Table 6, the R-squared of MSME performance is moderate, and that of financial inclusion indicates high reliability.

b. F-Squared

F-squared assesses the relative impact of an influencing variable (exogenous) on the affected variable (endogenous) (Juliandi, 2018). The results are shown in Table 7. The F-squared has the following criteria: if the value of F^2 is 0.02, it has a small effect; if the value of F^2 is 0.15, it has a moderate effect, and if the value of F^2 is 0.35, it has a large effect.

Table 7. F-squared.

Var.	X1	X2	Y	Z
X1	-	-	0.04	0.01
X2	-	-	0.30	0.22
Y	-	-	-	-
Z	-	-	0.03	-

c. Direct Effect

The purpose of direct effect analysis is to test the hypothesis of the direct effect of an exogenous variable on an endogenous variable. Table 8 presents the findings. The criteria for evaluating the direct effect hypothesis are the presence of a positive route coefficient and a probability/significance value (p-value) of less than 0.05 (Juliandi, 2018).

Table 8. Direct effect.

Variable	Original sample	Sample mean (M)	Standard deviation	T-statistic (|O/STDEV)	P-value
Financial literacy on MSME performance	0.17	0.16	0.10	1.67	0.10
Financial literacy on financial inclusion	0.13	0.14	0.18	0.71	0.48
Financial technology on MSME performance	0.54	0.58	0.13	4.10	0.00
Financial technology on financial inclusion	0.52	0.52	0.16	3.21	0.00
Financial inclusion on MSME performance	0.15	0.12	0.12	1.23	0.22

Graphically, the results of the direct effect are summarized in Figure 3.

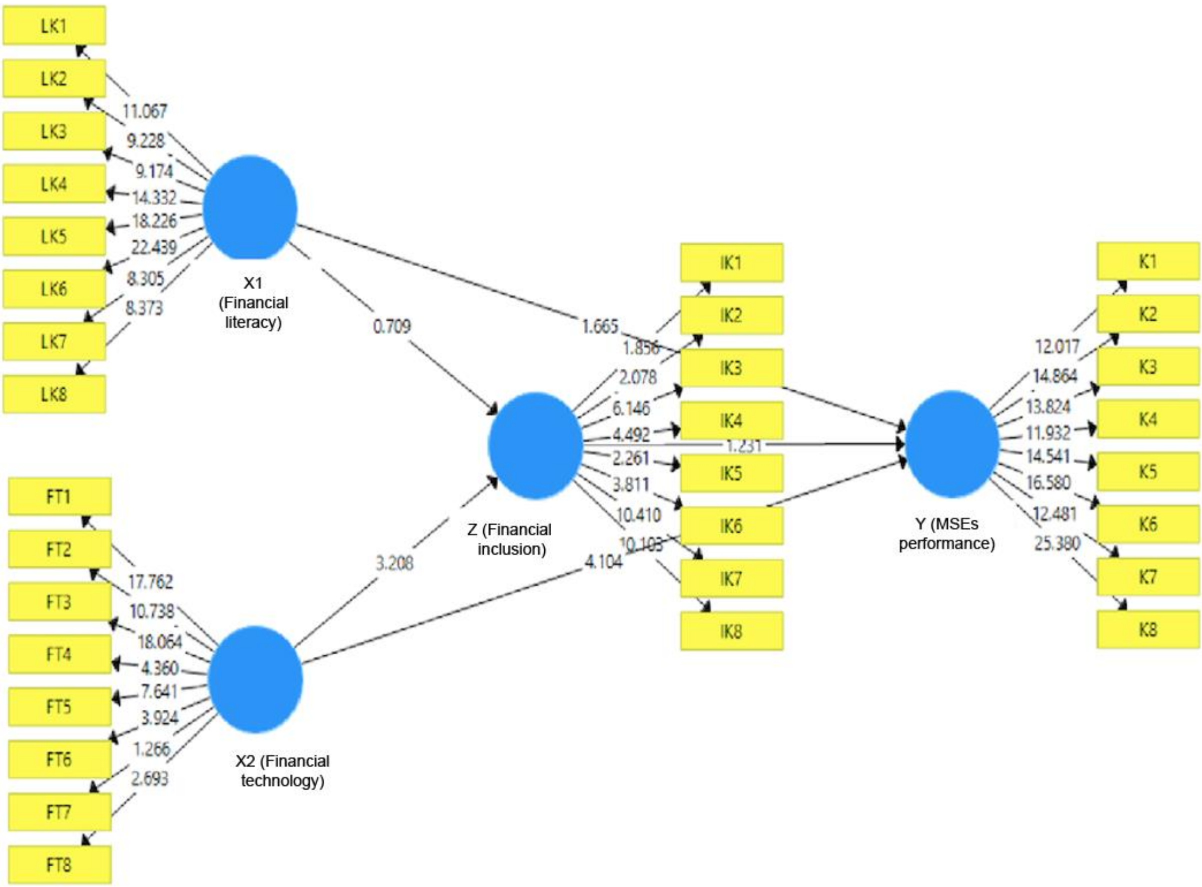

Figure 3. Direct effect.

d. Indirect Effect

The objective of the indirect effect analysis is to test the hypothesis of the indirect effect of an exogenous variable on an endogenous variable, as mediated by an intervening variable (mediator variable). The results are shown in Table 9. The criterion for determining an indirect effect is that its p-value < 0.05 (Juliandi, 2018).

Table 9. Indirect effect.

Effect	Original sample	P-value
Financial literacy -> Financial inclusion -> MSME performance	0.02	0.62
Financial technology -> Financial inclusion -> MSME performance	0.08	0.20

4.3. Discussion

a. Effect of Financial Literacy on MSME Performance

For MSMEs, financial literacy is managers' ability to record financial statements, manage debt, and prepare budgets. Recording financial statements requires MSME managers to record business activities, business income and expenses, business profitability, and other performance-related topics. When MSMEs are unable to create their own financial reports, the majority of commercial banks will not grant capital credit. The ability to provide financial reports is important so that MSMEs may measure their business's success. According to the debt management literature, MSMEs can fund their working capital and investments in two ways: first, MSMEs can utilize savings; second, they can incur debts to third parties. When a business decides to borrow, the proportion of personal capital to external capital/debt decreases. Budget preparation literacy can be utilized to plan future business activities (Amri & Iramani, 2018).

Financial literacy is, therefore, the ability of entrepreneurs and managers of companies/MSMEs to organize and create financial reports on their business activities, including income and expenses, debt, and future budgets.

Financial literacy affects a person's style of thinking about financial conditions and influences business owners' strategic financial decision-making and management. The ability of business owners to handle funds is important for business performance and continuity. It is essential that business owners acquire financial knowledge to improve their business performance. This empowers MSMEs to grow their businesses (Kasendah & Wijayangka, 2019). However, education is required to calculate company performance using simple indicators such as sales growth, capital growth, annual workforce growth, market and marketing growth, and profit or operating profit growth (Aribawa, 2016).

MSME performance can be analyzed using simple measurement methods; it is anticipated that the actual condition of MSMEs will be revealed by their performance. The performance of MSMEs is the result of overall work accomplished compared to work targets or criteria that were predetermined and mutually agreed upon in a business entity with asset and turnover criteria determined by law.

Previous research has also examined the relationship between financial literacy and MSME performance. The results revealed that financial literacy has a significant impact on the performance of MSMEs (Aribawa, 2016).

However, the current study found that financial literacy had a positive but insignificant effect on MSME performance. This may be because the majority of the respondents' answers did not agree with the independent variable (financial literacy) and the dependent variable (SME performance).

b. Effect of Financial Technology on MSME Performance

Financial technology refers to technological innovations in the financial sector that intend to increase practicality, ease of access, and convenience, and decrease costs. With financial technology, even remote communities can use technology-based financial services without having to drive large distances. Financial technology has helped MSMEs that lack access to banking gain financing. With mature rules, it promotes the development of MSMEs by making loan transactions easy.

Online loan application is one of the ways financial technology facilitates access for borrowers in the MSME sector. According to prior research, financial technology has an impact on the activities of MSMEs. Specifically, according to Rizal et al. (2018) and Rahardjo et al. (2019), financial technology can provide easy access for borrowers from the MSME sector.

The results of the current study show that financial technology has a positive but insignificant effect on the performance of MSMEs. This may be because most of the respondents' questionnaire answers were in the "disagree" category for the independent variable (financial technology) as well as the dependent variable (SME performance).

Nevertheless, information and communication technology (ICT), including smartphones and broadband internet, is very important to increase access to safe and affordable financial services, such as payments, domestic and international transfers, insurance, credit, and savings. Digital financial inclusion can be beneficial for underserved low-income people and MSMEs. Digital financial services can simplify people's lives by allowing them to conduct minor transactions and better manage their income and expenses. The provision of financial services, such as payments, transfers, savings, and credit, enables providers to tailor additional financial services to the needs of their customers. Additionally, digital financial inclusion can lower the risk of cash-related loss, fees, theft, and other financial crimes.

c. Effect of Financial Literacy on Financial Inclusion on MSME Performance

Financial literacy is important for MSMEs to gain access to funding. If debtors have a good financial education, banks will be more prepared to offer financial facilities (credit) (Remund, 2010). The growth of MSMEs has an impact on the economic growth of a community because they offer a variety of business opportunities, but MSME entrepreneurs continue to struggle to develop their businesses due to capital difficulties. Financial inclusion is one method of addressing the capital problem.

Financial inclusion makes it possible to effect changes in the thinking of economic actors regarding money and profits. The greater the level of awareness of financial goods, company hazards, loan risks, etc., the simpler it is for debtors to get loans. Research conducted by Sohilauw (2018), Biswas and Gupta (2013), Bhushan and Medury (2013), and Mahdzan and Tabiani (2013) found that financial literacy greatly affects the level of financial inclusion. When the public knows the benefits of financing and financial products, the demand for access to financial institutions increases.

The results of this study were the same as the previous literature; namely, financial literacy had a positive and significant effect on financial inclusion. This is because the majority of the questionnaire answers from the respondents were in the categories "strongly agree" and "agree" for the independent variable (financial literacy) and the mediating variable (financial inclusion).

d. Effect of Financial Technology on Financial Inclusion on MSME Performance

In the current digital era, financial technology is one type of financial service that is growing in popularity. In Indonesia, digital payments are one of the most developed aspects of the financial technology industry. This sector is the government and public's greatest hope for increasing the number of individuals with access to financial services. Banking is a necessary intermediary financial entity that serves the needs of business actors. These needs include not just the provision of capital, but also assistance with the payment system. In the current digital era, banks can no longer exclusively conduct their operational activities in the traditional manner, i.e., by depending exclusively on branch offices. On the contrary, banks must innovate their business practices, and one way to do so is by collaborating with financial technology companies.

Research by Hutabarat (2018) claimed that financial technology impacts financial inclusion. The results of the study indicated that the government would support the implementation of inclusive financial services in proportion to the number of individuals who used digital financial services. The shift of financial services and products from conventional to technological reduces the public's time and operational expenses.

Credit is necessary for the growth of small businesses and influences people's saving behavior. However, although the specific impact of financial technology on financial inclusion was negative in the static model, in the indirect model the financial technology variable had a positive effect on financial inclusion at a 10% significance level.

Therefore, this study reached the same conclusion as previous studies; namely that financial technology had a positive and significant impact on financial inclusion. This is because the majority of questionnaire responses strongly agreed or agreed with the independent variable of financial technology and the mediating variable of financial inclusion.

e. Effect of Financial Inclusion on MSME Performance

The growth of MSMEs has an impact on the economic growth of a community since they offer a variety of business opportunities; yet MSME entrepreneurs continue to struggle to build their businesses due to capital difficulties. Financial inclusion is one method of addressing the problem of capital problems.

Financial inclusion is defined as universal access to appropriate financial products, including credit, savings, insurance, and payments, in addition to the quality of access, including convenience, affordability, suitability, and consumer protection. Research conducted by Sanistasya et al. (2019) and Yanti (2019) found that financial inclusion had a positive effect on financial performance.

The results of the current research differ from the previous results; namely, financial inclusion had a positive but insignificant effect on MSME performance. This is because the majority of respondents' questionnaire answers were in the "disagree" category for the mediating variable (financial inclusion) and the dependent variable (SME performance).

f. Effect of Financial Literacy on MSME Performance via Financial Inclusion

The development of MSMEs is frequently hampered by unresolved conventional problems, such as those pertaining to human resource capabilities, ownership, financing, marketing, and other issues associated with business management. Therefore, there is a need for strategic actions to enhance the performance of MSMEs. One approach is to increase the financial expertise of MSME actors so that their management and accountability may be improved in turn Aribawa (2016).

According to a 2015 survey by the World Bank, the number of people in Indonesia without access to financial services can be viewed from two perspectives, namely supply and demand. The financial sector is overly selective in its customer selection, hesitating to create expensive branch offices and assuming that housewives with low salaries cannot obtain financial services. Because financial literacy facilitates the effective use of products and aids business actors in developing the best skills and selecting financial products based on their needs, it has become a precondition for increasing financial inclusion. Financial inclusion can change the way economic actors view money and profits.

Thus, financial literacy has a direct impact on the performance of MSMEs, and financial inclusion is unnecessary. In other words, financial literacy shapes MSME performance. However, because the statistical tests yielded insignificant results, the study conclusions can only be applied to the investigated sample and cannot be extrapolated to the total population (all MSME business actors). If the study were conducted on the total population, the author hypothesizes that the results would be different and that financial inclusion would mediate the relationship between financial literacy and MSME performance.

g. Effect of Financial Technology on MSME Performance via Financial Inclusion

MSMEs play a significant role in attempts to boost Indonesian economic development, economic expansion, and job creation. It is anticipated that the expansion and development of MSMEs will enhance the GDP and increase employment, hence reducing unemployment and poverty. Especially with the adoption of the ASEAN Economic Community (AEC), MSME actors are required to generate new innovations to meet market demand and establish Indonesia as a market leader in the ASEAN region (Aribawa, 2016). Increasing innovation requires capital, hence financial institutions, including banks, must be available to serve the needs of business actors. These needs include the provision of capital as well as assistance with the payment system. In the current digital era, banks should not only conduct their operational activities conventionally, that is, by depending solely on branch offices. On the contrary, banks must reinvent their business activities, and one way to do so is by collaborating with financial technology companies.

The emergence of financial technology presents entrepreneurs with new opportunities. Financial technology facilitates business people's access to financial products and improves their financial literacy. Businesspeople can use financial technology to finance their firms. Previous research on the impact of financial technology on MSMEs includes the studies of Muzdalifa et al. (2018), Dermawan (2019), Hutabarat (2018), and Rahardjo et al. (2019). These studies highlighted the presence of a variety of financial technologies as a factor in the development of MSMEs. The function of financial technology extends beyond supplying corporate capital to include digital payment services and financial regulators, among other aspects.

Thus, financial technology directly influences the performance of MSMEs, and financial inclusion is unnecessary. In other words, financial technology shapes MSME performance. However, because the statistical tests yielded insignificant results, the conclusions of this study can only be applied to the investigated sample and cannot be generalized to the total population (all MSME business actors). If the study were conducted on the total population, the author hypothesizes that financial inclusion would mediate the relationship between financial literacy and MSME performance.

5. Conclusion

Based on the findings and discussion, it is clear that both financial literacy and financial technology have a positive and significant impact on the success of Medan's MSMEs. Medan's MSMEs benefit slightly from financial inclusion. The connection between financial literacy and MSME performance in Medan City is not mediated by financial inclusion.

6. Suggestions

The researcher puts forward certain recommendations that may prove advantageous to the stakeholders involved in this research. (1) The Financial Services Authority, Bank Indonesia, and companies providing financial products and services should conduct activities to improve financial literacy, such as education on financial terms, the benefits of each financial product or service, and training in good financial management, as required. In particular, young people between the ages of 17 and 25 who are employed in the tertiary sector are advised to improve their education. (2) The use of digital financial services is rising rapidly in Indonesia. For the public to have more faith in these services and to prevent financial technology corporations from committing crimes via the internet, it is proposed that consumer protection regulations for financial technology services be implemented immediately. (3) This study is expected to serve as a reference for additional academic research on the effects of financial literacy and financial technology on the performance of MSMEs. Additional research can add new variables, expanding the scope of the study. It is hoped that academics will also play a role in encouraging MSME groups to improve financial literacy and financial inclusion, which are still low, and assist in the practice of financial governance to increase the ability of small business owners to be more organized in their financial reports and thereby increase their turnover. (4) With this research, the author hopes to make the government aware of the low financial literacy level among Medan's MSME actors. This requires the government to play a significant role in the development of financial literacy so that the public is not only aware of various financial services but also has the understanding, skills, and confidence to make financial management decisions that improve their financial welfare.

7. Limitations

There are several limitations and factors that should be given greater consideration by future researchers as they continue to refine their own research, as this study itself undoubtedly contains shortcomings that must be addressed in future research. According to the researcher's observations, one of the study's limitations was the inconsistency of the responses to the questionnaire because respondents tend to be less cautious with established statements. Researchers might anticipate this by overseeing the respondents as they select responses, allowing the respondents to concentrate on addressing the existing statements. However, due to the Covid-19 pandemic, this was not possible in the current study.

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