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Determinants of SMEs' access to finance: firm characteristics, financial delinquency, and fintech adoption

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Abstract

Limited access to financing remains a major obstacle for Micro, Small, and Medium Enterprises in expanding their businesses, particularly amid intensifying market competition and the rapid digitalization of the financial sector. This study offers novelty by integrating firm characteristics, financial delinquency, and fintech adoption within a single framework while examining the moderating role of government support in MSMEs' access to finance. This research aimed to analyze the effects of Firm Characteristics, Financial Delinquency, and Fintech Adoption on MSMEs' Access to Finance among MSMEs in Malang City. A quantitative approach was employed using proportionate stratified random sampling with 411 respondents. Data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with SmartPLS. The findings indicate that Firm Characteristics, Financial Delinquency, Fintech Adoption, and Government Support positively and significantly affect Access to Finance. Fintech Adoption emerged as the strongest determinant. However, Government Support failed to moderate the relationships between the independent variables and Access to Finance. These findings suggest that MSMEs' financial accessibility is driven more by internal readiness and digital financial capability than by government intervention, particularly in developing-country contexts.

1. INTRODUCTION

In Indonesia, Micro, Small, and Medium-sized Enterprises (MSMEs) play a crucial role in promoting Indonesia's national economic expansion. Based on data from the Ministry of Cooperatives and SMEs in 2023, the MSME sector can employ up to 97% of the workforce and accounts for over 61% of the country's GDP (Aftitah et al., 2025). This contribution shows that the existence of MSMEs is not only a support for people's economic activities, but also an important instrument in creating income equity, reducing unemployment, and improving national economic welfare (Choiruddin et al., 2025). However, in the midst of their significant contribution, MSMEs still face various obstacles in business development, one of which is limited access to financing.

Financing barriers are the main problem that makes it difficult for many MSMEs to increase their business capacity and competitiveness (Hasibuan, 2024). Most MSME actors

still have difficulty obtaining credit from formal financial institutions due to limited guarantees, weak business administration, low quality financial statements, and lack of adequate credit history. This condition causes financial institutions to assess MSMEs as a sector with a relatively high level of risk so that the credit distribution process becomes more selective. According to Bank Indonesia (2025), the majority of MSME actors still struggle obtaining credit from official financial establishments, both banks and other financing institutions. These obstacles are generally caused by limited assets as collateral, unorganized business administration, low quality financial statements, and lack of understanding of business actors on formal financing procedures. This condition causes MSMEs are typically viewed by financial institutions as a high-risk industry so that the credit disbursement process becomes more selective.

In addition to administrative obstacles, the creditworthiness aspect is also an important factor in determining MSME financing access. Financial institutions generally consider the company's internal conditions such as business size, business legality, managerial ability, cash flow stability, and quality of business governance before providing financing. In the perspective of the Resource-Based View (RBV) developed by Barney (1991), the company's unique and difficult to imitate internal resources can increase the competitiveness and credibility of the business in the eyes of external parties, including financial institutions. MSMEs that have larger assets, longer business life, and professional management tend to have a higher level of trust so that it is easier to obtain formal financing. On the other hand, MSMEs with small business capacity and inadequate administration often experience difficulties in meeting the credit requirements set by financing institutions.

On the other hand, the financial behavior of business actors is also a factor that affects access to financing, especially related to financial delinquency or delays in fulfilling financial obligations. The high rate of late payments and non-performing loans has led to a decrease in the creditworthiness of MSMEs in the eyes of lenders. According to OECD (2023), financial delinquency is generally influenced by weak cash flow management, low financial literacy, and dependence on short-term financing. This condition causes financial institutions to be more careful in distributing credit to MSMEs that have a history of bad payments. Based on the Economic Report of East Java Province (Bank Indonesia, 2022), the ratio of non-performing loans (NPLs) to banks in East Java is in the range of 3.89%, while MSME loan NPLs reach 4.34%, which shows that financing risks in the MSME sector are still high. Thus, financial delinquency is one of the factors that can hinder the expansion of access to financing for MSMEs.

The development of digital financial transformation has also created new opportunities in expanding access to MSME financing through financial technology (fintech). Digital transformation in the financial sector has prompted a change in the financing mechanism that was previously dominated by conventional banking institutions to be more digital-based on technology. Fintech is present as an alternative financing that offers a faster, more flexible, and more accessible process for business actors, especially MSMEs that have not been reached by formal financial services. Based on the report Financial Services Authority (OJK, 2024), outstanding fintech lending funding to MSMEs in Indonesia reached IDR

20.97 trillion in April 2024. The data shows that fintech has great potential in broadening MSMEs' access to funding and promoting financial inclusion.

Fintech is important for MSMEs because it is able to reduce various barriers to conventional financing, especially related to limited collateral, high transaction costs, and difficulties in accessing formal financial services through the use of digital technology in the financing process (Sanga & Aziakpono, 2023). In addition, the use of digital technology allows the credit assessment process to be carried out faster through the use of digital transaction data and financial activities of business actors. However, the level of fintech adoption among MSMEs still faces various challenges such as low digital literacy, limited understanding of financial technology, and low trust in the security of digital transactions. According to the Technology Adoption Model (TAM) developed by Davis (1989), the level of acceptance of technology is impacted by users' perceptions of its usability and advantages. In the context of MSMEs, the higher the level of understanding and acceptance of financial technology, the greater the opportunity for business actors to utilize fintech as an alternative source of financing.

Malang City is one of the areas with a fairly rapid growth of MSMEs in East Java. Based on data Central Statistics Agency (2024), there are around 20,517 MSMEs engaged in various business subsectors such as culinary, fashion, handicrafts, and trade. The large number of MSMEs shows that Malang City has strong local economic potential. However, most MSME actors in Malang City still have difficulties in obtaining access to formal financing. The low access to financing has an impact on limited business capital, low production capacity, and hampered business development.

In addition to internal factors of MSMEs, government support also plays a significant part in growing access to financing. The government has launched various policies and programs such as People's Business Credit (KUR), interest subsidies, digitalization assistance, and financial literacy programs to encourage the development of MSMEs. Government support can strengthen the relationship between company characteristics and access to financing, while helping to reduce barriers caused by financial delinquency and low fintech adoption. From the perspective of Institutional Theory, government policies can create an institutional environment that supports increasing financial inclusion for MSMEs.

Previous research has discussed the influence of firm characteristics, financial delinquency, and fintech adoption on MSME financing access. Rusliana & Alisjahbana (2023) found that the size of the business and the legality of the business had a significant effect on the chances of obtaining formal credit. Research from Stuart (2024) stating that late payment is negatively related to access to financing. Research by Chen (2024) shows that fintech adoption is able to increase MSME financing access through more inclusive and efficient digital financial services. Research by Umami et al. (2024) emphasized that the success of the adoption of MSME digitalization is greatly influenced by government support that is able to reduce disparities in access to financing. However, most of the research is still conducted in a partial manner and has not integrated all of these variables into one comprehensive research model. Furthermore, it is still uncommon to employ the government support variable as a moderation variable in the relationship between internal factors of MSMEs and access to financing. This condition shows that the effectiveness of government

support in increasing MSME financing access still needs to be further studied, especially in the context of financial technology adoption and the financial behavior of business actors. In addition, most previous studies have still tested these variables partially and not many have integrated firm characteristics, financial delinquency, fintech adoption, and government support in one comprehensive research model. Thus, there is still a research gap related to the consistency of the role of government support in strengthening the relationship between internal factors of MSMEs and access to financing in the midst of the development of fintech and the digitalization of the financial sector. Therefore, this study aims to examine the influence of firm characteristics, financial delinquency, and fintech adoption on access to finance for MSMEs in Malang City. This study also aims to analyze the role of government support as a moderation variable in the relationship between internal factors of MSMEs and access to financing in the era of digital financial transformation. It is anticipated this study will empirically add to the body of knowledge about MSME financing access and become a consideration for business actors and financial institutions in creating a more inclusive and sustainable financing system.

2. THEORETICAL AND HYPOTHESIS STUDIES

This research uses a theoretical approach that focuses on the internal capabilities of MSMEs, financing accessibility, adoption of financial technology, and government institutional support in improving access to business financing. In this study, The main theory used in this study is the Resource-Based View (RBV) developed by Barney (1991). This theory explains that companies can gain a competitive edge if they possess valuable resources, scarce, difficult to replicate, and not easily replaced. In the context of MSMEs, these internal resources are reflected in the characteristics of the company such as business size, asset ownership, business legality, managerial experience, and quality of business governance. These characteristics are an important signal for financial institutions in assessing the credibility and loan repayment ability of business actors. Therefore, the better the internal characteristics of MSMEs, the greater the chance for MSMEs to obtain access to formal financing.

RBV is the dominant basic theory in this study because all independent variables are basically related to the internal ability of MSMEs to obtain external resources in the form of financing. Firm characteristics show the internal capacity of the business, financial delinquency reflects the quality of financial resource management, while fintech adoption shows the ability of MSMEs to utilize technology resources to expand financial access. Meanwhile, government support plays a role as an external factor that can strengthen the effectiveness of MSMEs' internal resources in obtaining financing. Thus, this study not only looks at variables separately, but also explains the relationship between variables in shaping MSME financing access.

Wernerfelt (2007) It also emphasized that the company's internal resources can be a strategic factor in improving operational efficiency and the company's ability to obtain external support. Research findings Cao et al. (2023), Khan et al. (2024), and Jiménez-Rico et al. (2023) Firm characteristics have a positive effect on access to finance because it

reflects the business's capacity to fulfill financing obligations. MSMEs with larger assets, better business administration, and longer business experience tend to have lower risks so that it is easier to obtain financing.

In addition to the internal capabilities of the business, access to financing is also influenced by the level of financial risk of MSMEs. In this study, the relationship is explained through Financial Accessibility Theory developed by Stiglitz & Weiss (2007). This theory explains that access to financing is not only influenced by the need for funds, but also influenced by the perception of risk and the quality of information that financial institutions have on potential borrowers. In imperfect market conditions, financial institutions tend to apply credit rationing or credit restrictions to avoid the risk of default. This condition often occurs in MSMEs because most business actors do not have good financial reports, adequate collateral, and a strong credit track record. Beck et al. (2008) outlined how it is more challenging in developing nations due to the flaws in the financial industry for MSMEs to access financing than large companies. Modina et al. (2023) and Stuart (2024) explained that MSMEs with a history of bad credit tend to obtain low creditworthiness scores and are more often rejected by formal financing institutions. This condition shows that the higher the level of financial delinquency, the more limited access to MSME financing will be. Therefore, factors such as financial reputation and credit risk are the main considerations in the financing distribution process.

Advances in digital technology have also transformed the way micro, small, and medium enterprises (MSMEs) access financing, especially through the use of financial technology (fintech). In this study, the use of fintech is explained through the Technology Adoption Model (TAM) introduced by Davis (1989). TAM explained that the acceptance of technology is influenced by perceived utility and perceived usability. In the context of MSMEs, fintech provides easy access to financing through digital-based services such as peer-to-peer lending, mobile banking, and electronic payments. Fintech is also able to reduce administrative barriers and expand the reach of financial services to business actors who have not been served by formal banking. Research from Gillani et al. (2025), Fatticia et al. (2024), and Purnamasari (2024) shows that the use of fintech improves access to financing because it speeds up the credit assessment process, lowers transaction costs, and provides more inclusive financing alternatives for MSMEs.

A significant association exists among the internal elements of the company factors, financial risk, and technology adoption to access to financing is also influenced by government institutional support. Institutional Theory developed by North (1990) explains that institutions, regulations, and public policies shape economic behavior and create an environment that supports market efficiency. In the context of MSMEs, government support is realized through subsidized credit policies, credit guarantees, digitalization training, strengthening financial literacy, and fintech regulations that support financial inclusion. Conceptually, government support functions as a moderation variable because government support can strengthen or weaken the relationship between the internal capabilities of MSMEs and access to financing. Government support can strengthen the influence of company characteristics on access to financing because MSMEs gain higher legitimacy and trust from financial institutions. Research Pu et al. (2021) and Guo et al. (2022) shows that

government support is able to strengthen the influence of the company's internal capacity on external financing through reducing risk perception.

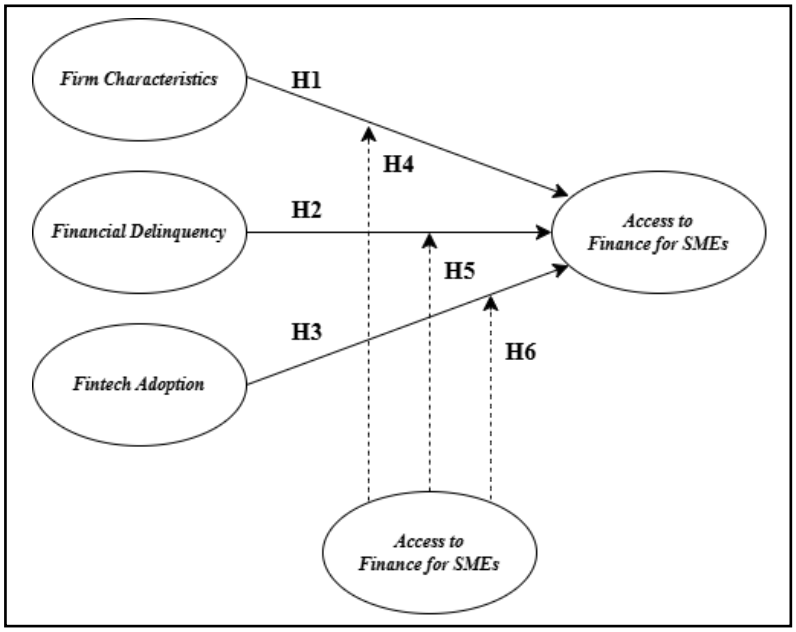

Figure 1. Conceptual Framework

Government support also serves as a moderating factor that influences the relationship between financial delinquency and access to finance. Policies such as credit restructuring, interest subsidies, and credit guarantee schemes allow the government to share risks with financing institutions so that MSMEs that have a history of late payments still have the opportunity to gain access to financing. Research Chundakkadan et al. (2022) and Zhou (2025) shows that government credit guarantees are able to reduce the negative impact of financial delinquency on MSME financing access. With government intervention, financial institutions have become more confident in distributing credit to medium-risk business actors.

In addition, government support also strengthens the relationship between fintech adoption and access to finance. Government support in the form of digital regulations, electronic payment infrastructure, digital literacy training, and consumer protection can increase MSMEs' trust in fintech services. Research from Umami et al. (2024), Nugraha et al. (2022), and Verma & Shome (2025) shows that government support accelerates fintech penetration and strengthens the influence of the use of digital technology on MSME financing access. With a conducive regulatory ecosystem, fintech is an important instrument in increasing financial inclusion and expanding access to business capital. This study's hypothesis is based on the theoretical underpinnings and findings of earlier research:

H1: Firm Characteristics affect Access to Finance for MSMEs.
H2: Financial Delinquency affects Access to Finance for MSMEs.
H3: Fintech Adoption has an effect on Access to Finance for MSMEs.
H4: Government Support moderates the influence of Firm Characteristics on Access to Finance for MSMEs.

H5: Government Support moderates the impact of Financial Delinquency on Access to Finance for MSMEs.
H6: Government Support moderates the influence of Fintech Adoption on Access to Finance for MSMEs.

3. RESEARCH METHODS

This study employs a quantitative technique using a causality research design. The quantitative approach is used because the research focuses on objectively measuring the connections among the variables using statistical analysis and numerical data. The research was conducted on MSME actors in Malang City. All research populations are MSMEs in Malang City in 2024 which totals 20,157 business units based on data from the Malang City Office of Cooperatives, Industry and Trade. The determination of the number of samples was used using the Cochran formula:

$$n_0 = \frac{Z^2.p.q}{e^2}$$

Description:
$n_0 =$ initial sample size,
$Z =$ Z-score value based on confidence level (95% = 1.96)
$p =$ proportion of the population that is assumed to have certain characteristics (0.5)
$q = 1 - p$
$e =$ Margin of error 0.05 (5%)

$$n_0 = \frac{(1{,}96)^2 \times 0{,}5 \times 0{,}5}{(0{,}05)^2} = 384{,}16$$

Because the research population is limited (N = 20,517), corrections were made using the finite population correction formula as follows:

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}} = \frac{384{,}16}{1 + \frac{383{,}16}{20.517}} = 377{,}12$$

So that a minimum of 377 respondents were obtained. Proportionate stratified random sampling is the method used, so that each sub-district obtains a proportion of samples according to the number of MSME populations. The respondent criteria include MSME actors who have been actively running a business for at least six months, have used fintech services, and have applied for business financing.

The research data were classified into two categories, namely primary and secondary data of sources. Primary data was collected through a closed-ended questionnaire spread compiled using a five-point Likert scale. The scale represents the level of approval of respondents, ranging from extreme disagreement to extreme agreement. The survey was created using variable indicators that were modified from earlier studies.

Table 1. Operational Definitions and Research Variable Indicators

Variable	Operational Definition	Measurement Indicators	Source
Access to Finance (Y)	The ability of MSMEs to obtain financing from formal and non-formal financial institutions to support business growth and business sustainability.	1. Amount of credit received 2. Funding sources used 3. Interest rate/loan tenor 4. Credit rejection ratio 5. Perception of ease of obtaining financing	(Beck et al., 2008; Jiménez-Rico et al., 2023; OECD, 2023)
Firm Characteristics (X_1)	Internal attributes of a company such as size, age, assets, and managerial professionalism reflect business capacity and affect credibility in the eyes of financial institutions.	1. Age of business 2. Number of Workforce 3. Total assets 4. The legality of the business 5. Annual turnover 6. Managerial/managerial experience	(Barney, 1991; Cao et al., 2023; Khan et al., 2024)
Financial Delinquency (X_2)	The condition of delay or failure of MSMEs in fulfilling their financial obligations to financial institutions that reduce credit reputation.	1. Frequency of late payments 2. Amount of arrears 3. Non-performing loan (NPL) ratio 4. Business credit score	(Agustin, 2025; Khaliq et al., 2022; Khan et al., 2024; Ramadhany & Kaluge, 2025; Siska et al., 2024)
Fintech Adoption (X_3)	The level of acceptance and use of digital technology-based financial services by MSMEs to meet the needs of financing and business transactions.	1. Benefits felt by fintech users 2. Easy access to financial services 3. Intensity of fintech application usage 4. System integration level	(Aini & Fadilla, 2025; Edo et al., 2024; Gillani et al., 2025; Rensia et al., n.d.; Setiawan et al., 2025)
Government Support (Z)	Government support in the form of policies, programs, incentives, and regulations aimed at expanding access to financing and encouraging the competitiveness of MSMEs.	1. Participation of MSMEs in government programs 2. Subsidies or incentives received 3. Training and digitalization 4. Perception of the effectiveness of government policies	(Prasannath et al., 2024; Umami et al., 2024)

Secondary data was obtained from official government publications, reports from the Financial Services Authority, Bank Indonesia, scientific journals, and literature related to MSMEs and fintech. To ensure the quality of the measurement tool, the research instrument underwent both validity and reliability assessments. These tests were carried out to verify that the tool delivered consistent findings and measured the intended constructs appropriately. The validity test was carried out through loading factor and AVE values, while reliability was measured utilizing Cronbach's Alpha and Composite Reliability with a minimum value of 0.70 (Hair et al., 2021; Hadi et al., 2022).

The data analysis technique uses the PLS-SEM technique using SmartPLS 4.0 software. The PLS-SEM approach was selected because it is able to analyze complex relationships between latent variables, including the influence of moderation, and does not require strict normal data distribution (Ringle & Sarstedt, 2022). The analysis stages in this study are carried out systematically and include several main procedures. The process begins with descriptive statistical analysis, then proceeds to evaluate both internal and external models. Furthermore, hypothesis testing was conducted to evaluate the relationship among variables, as well as moderation tests to identify the role of moderator variables in the research model. The outer model is used to test convergent validity, discriminant validity, and construct reliability. Meanwhile, the inner model is used to measure the R-Square value and effect size to assess the magnitude of the relationship between variables. Hypothesis testing was carried out through bootstrapping techniques by looking at t-statistic and p-value values. The moderation test was carried out using the interaction effect to find out whether government support was able to moderate the relationship between independent variables and access to finance.

4. RESULTS AND DISCUSSION

The total number of respondents that was successfully collected by the author was 411 respondents from a minimum target of 377 respondents with the following classification description,

Table 2. Questionnaire Participant Data

Respondent Characteristics		Total	Percentage
Gender	Male	121	29,4%
	Women	290	70,6%
Place of Business	Kedungkandang	82	20%
	Breadfruit	106	25,8%
	Klojen	54	13,1%
	Blimbing	78	19%
	Lowokwaru	91	22,1%
Long Walking Age	> 6 months	49	11,9%
	1-3 years	207	50,4%
	4-7 years	123	29,9%
	> 7 years old	32	7,8%
Type of Business	Culinary	210	51,1%
	Fashion	100	24,3%
	Services	91	22,1%
	Others (production, atk, craft, property, glassware, etc.)	10	2,5%
Scale of Efforts	Micro	179	43,6%
	Small	138	33,6%
	Intermediate	94	22,8%

Source: Researcher-processed data, 2026

The analysis findings indicated that the majority of indicators satisfied the requirements for convergent validity, as evidenced by outer loading value exceeding the minimum threshold of 0.70. However, the X2.2 indicator has an outer loading value of 0.259 so it does not meet the criteria and must be eliminated from the model. Elimination is carried out in stages starting from the indicator with the lowest value, then the model is retested until all remaining indicators meet the criteria of convergent validity. In the final stage, only indicators with an outer loading value greater than or equal to 0.70 are retained in the measurement model.

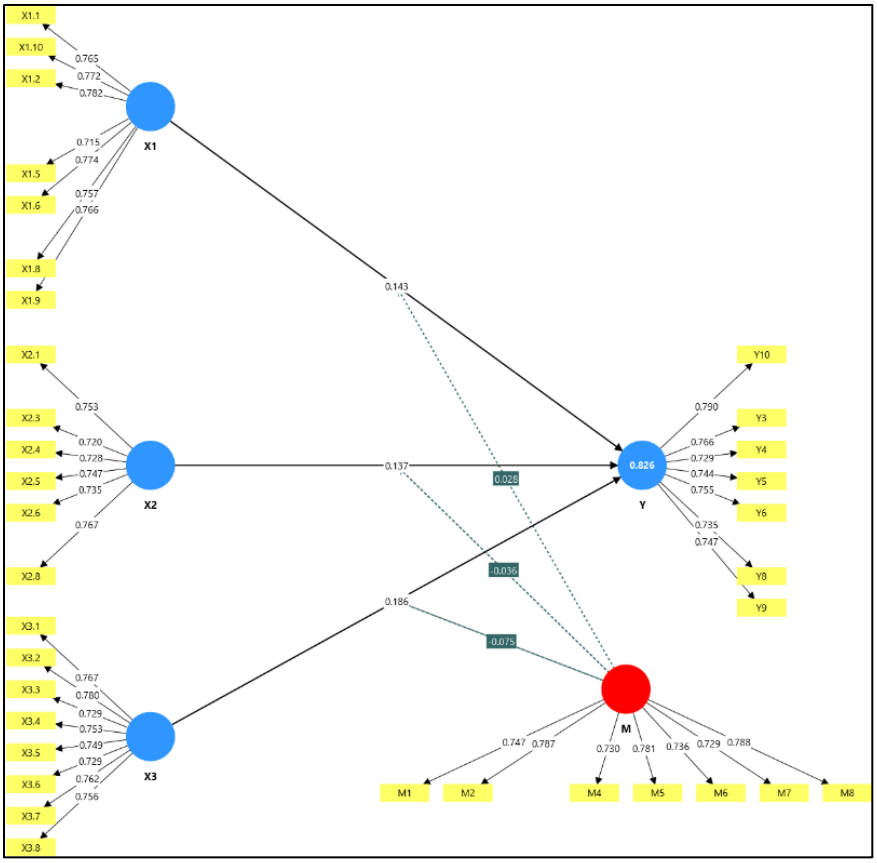

Figure 2. Output PLS-SEM
(Source: Output Data Processed by Researchers, 2026)

After the evaluation and elimination process of indicators, the final stage of the outer model analysis only maintains indicators with an outer loading value greater than or equal to 0.70. The test results showed every other indicator satisfied the convergent validity criteria and were capable of adequately representing the latent construct. Furthermore, the convergent validity was evaluated using the Average Variance Extracted (AVE) value to measure the ability of the construct to explain the variance of the indicator.

Table 3. Average Variance Extracted (AVE)

Variable	Average Variance Extracted (AVE)
X1 (Firm Characteristics)	0.580
X2 (Financial Delinquency)	0.551

X3 (Fintech Adoption)	0.567
Y (Access to Finance)	0.567
M (Government Support)	0.574

The instrument's consistency in measuring the research variables increases with its reliability value (Subhaktiyasa, 2024). The nature of this research, reliability testing using Cronbach's Alpha and Composite Reliability (rho_a and rho_c). Based on the results of data processing, the following reliability values were obtained:

Table 4. Cronbach's Alpha and Composite Reliability

	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
M	0.876	0.876	0.904	0.574
X1	0.879	0.880	0.906	0.580
X2	0.837	0.837	0.880	0.551
X3	0.891	0.891	0.913	0.567
Y	0.872	0.873	0.901	0.567

Based on the test results, all variables showed Cronbach's Alpha, Composite Reliability, and rho_a values greater than 0.70, according to the test results, so that the entire construct was declared reliable and had good internal consistency for further analysis.

Table 5. R-Square Value

	R-square	Adjusted R-square
Y	0.826	0.823

The results of data processing showed an R-Square value of 0.826 and an Adjusted R-Square of 0.823 for the Y variable.

Table 6. Effect Size Test Results

	M	X1	X2	X3	Y	M x X1	M x X3	M x X2
M					0.066			
X1					0.016			
X2					0.016			
X3					0.020			
Y								
M x X1					0.002			
M x X3					0.010			
M x X2					0.002			

Based on the effect size (f^2) value, all variables have a small influence on the Y variable because the f^2 value is below 0.15. However, simultaneously these variables are still able to make a large contribution, reflected in the high R-Square value.

Hypothesis Test

In the PLS-SEM analysis, a hypothesis is declared acceptable if it meets the criteria with a t-statistical value of > 1.96 (for a significance level of 5%) and a p-value of < 0.05. Conversely, if the t-statistical value ≤ 1.96 and the p-value ≥ 0.05, then the hypothesis is rejected.

Table 7. Path Coefficients

Path	Original sample (O)	Sample average (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
M -> Y	0.242	0.248	0.054	4.492	0.000
M x X1 -> Y	0.028	0.022	0.041	0.677	0.249
M x X2 -> Y	-0.036	-0.030	0.045	0.790	0.215
M x X3 -> Y	-0.075	-0.073	0.047	1.602	0.055
X1 -> Y	0.143	0.146	0.070	2.038	0.021
X2 -> Y	0.137	0.136	0.070	1.965	0.025
X3 -> Y	0.186	0.185	0.073	2.550	0.005

In light of the bootsrapping test results, it was shown that government support (M), firm characteristics (X1), financial delinquency (X2), and fintech adoption (X3) had a positive and significant effect on access to finance (Y), so that H1, H2, and H3 were accepted. These findings show that government support, business characteristics, financial conditions, and fintech adoption are able to increase MSME financing access. However, the government support variable was unable to moderate the connection between independent variables and financial access because all moderation relationships had a t-statistical value less than 1.96 and a p-value more than 0.05. Thus, H4, H5, and H6 are rejected.

Moderation Test

All interaction variables do not significantly affect the access to finance variable, according to the test results. This is shown by the t-statistic and p-value values of each moderation variable, namely M×X1 → Y with a t-statistic of 0.677 and a p-value of 0.249, M×X2 → Y with a t-statistic of 0.790 and a p-value of 0.215, and M×X3 → Y with a t-statistic of 1.602 and a p-value 0.055. None of these numbers satisfied the importance requirements, namely a t-statistic greater than 1.96 and p-value lower than 0.05, indicating it can be concluded that the moderation effect was not significant.

Discussion

Access to financing for SMEs was positively and significantly impacted by firm characteristics, with a 0.143 coefficient value, t-statistic of 2.038, and p-value of 0.021 < 0.05, so H1 was accepted. These findings show that the better the internal characteristics of MSMEs, such as business size, business age, legality, financial records, and technology adoption, the greater the chance of obtaining access to financing. These results support according to the Resource-Based View (RBV) philosophy, an organization's internal resources are an important factor in increasing the competitiveness and trust of financial institutions. Analytically, financial institutions tend to assess MSMEs with better business characteristics as businesses that have operational stability, managerial capabilities, and lower risk of default. Business legality and good financial records also facilitate the credit analysis process because it provides more transparent information about business conditions. In the context of developing countries such as Indonesia, most MSMEs still face administrative limitations and financial documentation, so MSMEs with stronger internal characteristics will find it easier to meet formal financing requirements. Additionally, these results are consistent with research by Khan et al. (2024), Flaminiano & Francisco (2021), and Jiménez-Rico et al. (2023) which states that the characteristics of the company play an important role in determining MSME financing access.

Financial delinquency had a positive and significant effect on access to finance for SMEs with a 0.137 coefficient value, t-statistic of 1.965, and p-value of 0.025 < 0.05, so H2 was accepted. These results show that the lower the level of late payments or non-performing loans, the greater the chances of MSMEs obtaining financing. These findings support the Financial Accessibility Theory which explains that financial institutions tend to limit credit to debtors with a high risk of default. Late payment is an important indicator in assessing the level of discipline and financial ability of MSME actors. A poor payment history can increase the risk perception of financial institutions because it is considered to reflect weak cash flow, low financial management capabilities, and potential for future defaults. As a result, financial institutions will be more careful in distributing credit, both through rejection of financing and the provision of higher interest rates. In the context of developing countries, limited access to credit information and weak risk assessment systems make payment history one of the main indicators in MSME financing decisions. This research is also in line with Scott (2024), Modina et al. (2023), and OECD (2023) which states that payment history is an important factor in assessing the feasibility of MSME financing.

Adoption of fintech significantly and favourably affects access to financing for MSMEs with a 0.186 coefficient value, t-statistic of 2.550, and p-value of 0.005 < 0.05, so H3 is accepted. These findings show that the use of fintech is able to increase MSME financing access through faster, more flexible, and more accessible digital financial services. These results support the Technology Acceptance Model which explains that the convenience and benefits of technology drive user acceptance of fintech. More deeply, fintech provides financing alternatives that are able to overcome the limitations of the conventional financial system, especially for MSMEs that find it difficult to meet formal banking requirements. Fintech platforms allow the financing application process to be carried out digitally with simpler procedures, faster disbursement times, and the use of alternative data in credit analysis. This condition helps MSMEs that do not have collateral or a formal credit history to continue to gain access to financing. In addition, the development of fintech also contributes to increasing financial inclusion in developing countries because it is able to reach business actors in areas that have not been optimally served by formal financial institutions. This research is also in line with Bollaert et al. (2021), Nugraha et al. (2022), and Purnamasari (2024) which states that fintech plays a role in increasing financial inclusion and expanding access to MSME financing.

Government Support was unable to moderate the influence of Firm Characteristics on Access to Finance for SMEs with a 0.028 coefficient value, t-statistic of 0.677, and p-value of 0.249 > 0.05, so H4 was rejected. These results demonstrate that financial access is more impacted by the internal conditions of MSMEs than government support. Although the government provides various assistance and financing programs, financial institutions still make business characteristics the main consideration in determining creditworthiness. These results are in line with research Pu et al. (2021) and Prasannath et al. (2024) which states that government support is not always able to increase the impact of internal issues on the company's access to financing.

Government Support was unable to moderate the influence of Financial Delinquency on Access to Finance for SMEs with a -0.036 coefficient value, t-statistic 0.790, and p-value of 0.215 > 0.05, so H5 was rejected. These findings show that government support has not been effective in reducing the impact of late payment risk on MSME financing access. Financial institutions continue to make credit history and payment discipline the main indicators in financing assessments. This indicates that the government's support program has not been fully able to improve the internal quality of MSMEs directly, especially in the aspects of administration, governance, and financial readiness. In addition, the implementation of assistance programs in developing countries often faces obstacles such as limited socialization, unequal access to information, and low ability of MSMEs to utilize government programs optimally. These results support the research from Bai et al. (2022) which states that government support that is not optimal has not been able to reduce the perception of financial institutions' risk to problematic MSMEs.

Government Support was unable to moderate the influence of Fintech Adoption on Access to Finance for SMEs with a -0.075 coefficient value, t-statistic of 1.602, and p-value of 0.055 > 0.05, so H6 was rejected. These results imply that fintech's beneficial impact on access to financing has not been significantly strengthened by government support. This

condition can be caused by the uneven digital literacy, technological infrastructure, and the effectiveness of the MSME digitalization program. This condition shows that government intervention has not been able to reduce the risk perception of financial institutions towards MSMEs that have poor payment records. In practice, financial institutions continue to apply the principle of prudence because the risk of non-performing loans can affect the financial stability of the institution. In addition, in developing countries, the credit guarantee system and MSME financing risk protection are still not optimal, so government support is not strong enough to change the credit disbursement policy of financial institutions. The results of this study are in line with Tandilino et al. (2025) which states that the effectiveness of fintech is not only influenced by government support, but also the internal readiness of MSMEs and the quality of the digital ecosystem.

5. CONCLUSIONS AND SUGGESTIONS

This study aims to analyze the influence of firm characteristics, financial delinquency, and fintech adoption on access to finance for SMEs with government support as a moderation variable in MSMEs in Malang City. The results of the analysis showed that firm characteristics, financial delinquency, fintech adoption, and government support exerted a positive and significant influence on access to finance. This finding proves that internal business characteristics, good financial conditions, and the use of financial technology are able to increase the opportunities for MSMEs to gain access to financing. In addition, government support also contributes to expanding access to financing for MSMEs.

However, the study's findings indicate that government support is not able to moderate the influence of firm characteristics, financial delinquency, and fintech adoption on access to finance. This shows that financial institutions continue to be more worried with the internal conditions of MSMEs, such as business feasibility, payment history, and digital readiness, than the presence of government support in the financing distribution process. Overall, the research model has a strong ability to explain dependent variables, so this study provides an empirical contribution related to factors that affect MSME financing access in the digital era.

This research has limitations in the scope of research that is only conducted on MSMEs in Malang City thus that the findings of the study cannot be broadly applied to other areas. In addition, this study only uses a few main variables, namely firm characteristics, financial delinquency, fintech adoption, and government support, so there are still possible other factors that affect access to finance for SMEs, such as financial literacy, business performance, digital capability, and macroeconomic factors. The next research is suggested to expand the scope of the research area, increase the number of samples, and use other relevant variables so that the research results are more comprehensive. The next research can also use a longitudinal approach or mixed methods to better comprehend the dynamics of financial access for MSMEs. In addition, the government is expected to increase the effectiveness of MSME support programs through strengthening financial literacy, business digitalization, simplifying access to financing programs, and improving the quality of policy implementation so that the support provided can be felt more by MSME actors.

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