

# Financial Inclusion and Socio-Demographic Determinants of Micro and Small Enterprise Performance: Evidence from Conventional, Islamic, and Non-User Segments in Jakarta, Indonesia

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## Abstract

Micro and Small Enterprises (MSMEs) as part of MSMEs have an important role in the national economy, including increasing economic growth, supporting economic stabilization, improving public welfare, alleviating poverty, and reducing unemployment rates. However, in its development, MSMEs face many challenges, including capital problems and low access to financial service institutions. Meanwhile, financial inclusion is one of the government's efforts to provide greater access to MSME actors so that they can use financial products and services. This study aims to determine whether financial inclusion and socio-demographic factors can affect MSME performance. The research methods used are multiple regression analysis, interaction test, and ANOVA tests. The study results indicate that financial inclusion significantly positively impacts Micro and Small business Performance in the DKI Jakarta area. This study also shows that socio-demographic factors, especially gender, business age, and generation of MSME actors, significantly influence MSME performance in the DKI Jakarta area. On the other hand, this study provides information that the perception of the performance of MSESs using conventional financial service institutions has a higher value than that of MSESs using sharia financial service institutions. Meanwhile, the lowest perception of MSES performance is held by MSES actors who do not use financial service institutions.

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## INTRODUCTION

Micro & Small Enterprises (MSESs) are part of Micro, Small and Medium Enterprises (MSMEs), which have an important role in a nation's economy, including driving economic growth (Lakuma et al., 2019; Muritala et al., 2012), supporting financial stabilization (Neaime & Gaysset, 2018; Dienillah et al., 2018), improving community welfare, eradicating poverty, and reducing unemployment rates (Riwayati & Manuel, 2022; Ratnawati, 2020; Gunarsih et al., 2018).

MSME performance can be measured from business growth, profitability level, sales level, capital increase, and contribution to the local economy. However, based on literature studies, it is known that most MSMEs have obstacles in their development, including capital constraints and low access of MSMEs to financial services and products (Anggraeni et al., 2013), so efforts are needed to increase the use of loan products, one of which is by paying attention to the financial ratio for each MSME sector (Aristo Purboadji et al., 2022)

One of the important factors that can affect the performance of MSESs is financial inclusion. Inclusive finance is when the community has access to various quality formal financial products and services in a timely, smooth, and safe manner at affordable costs according to needs and abilities to improve community welfare (Coordinating Minister for Economic Affairs Regulation No. 4 of 2021). A high level of financial inclusion is believed to strengthen MSES capital and liquidity, support productive investment, and increase MSESs' ability to withstand financial crisis shocks.

According to the National Survey of Financial Literacy and Inclusion (SNLIK) results in 2024, the general financial literacy and inclusion index values are 65.08 % and 73.55 %.

Meanwhile, Indonesia's sharia financial literacy and sharia financial inclusion index are 39.11 % and 12.88 %. This shows that the financial inclusion target set by the President of 90% has not been achieved.

Sharia Financial Inclusion is part of the Islamic financial system based on Islamic principles. One of the principles of Islamic sharia in the financial system is the prohibition against transactions involving usury. In line with this principle, Ingratubun et al., (2022) explains that commercial or trade transactions are still not free from usury elements and require a separate national financial infrastructure to prevent usury practices. Thus, the Islamic financial system is based on Islamic Sharia philosophy, which implements the principles of justice and prohibits the setting of interest (Al-Jarhi, 2017).

Various empirical studies have emerged, ranging from household-level analysis and MSME actors in a region to cross-country studies that link financial inclusion indicators with MSME development at the macro level. However, the findings of these studies vary widely. Most studies report a positive relationship between financial inclusion and MSME performance – wider financial access drives growth (Christianty, Restia; Latupapua, Conchita V; Assyatri, 2016; Hilmawati & Kusumaningtias, 2021; Ofosu-Mensah Ababio et al., 2023) – while several other studies provide information that the effect depends on certain conditions, such as the level of financial literacy of MSME actors or the efficiency of financial institutions (Martini et al., 2021; Ristati et al., 2024). Critical studies also question whether financial inclusion always benefits MSMEs or can create new risks if not balanced with adequate capacity and understanding (Ozili, 2021).

Based on this background, this research was conducted with the aim of: (1) Analyzing the financial inclusion conditions of Micro and Small Businesses in the DKI Jakarta region ; (2) Analyzing the impact of Financial Inclusion and socio-demographic factors on the Performance of Micro and Small Enterprises in the DKI Jakarta area. The research will be conducted using the methods (1) Descriptive Analysis, (2) Multiple Linear Regression Analysis, (3) Interaction Test, and (4) ANOVA Test.

The structure of this article begins with an explanation of the role of financial inclusion in the performance of Micro and Small Enterprises (MSEs) in the DKI Jakarta area. Furthermore, the Results and Discussion section will present quantitative findings related to the role of financial inclusion and socio-demographic factors on the performance of MSEs in the DKI Jakarta area and the implications of the findings. Finally, the conclusion and suggestions section summarizes the main points and practical implications for stakeholders.

## METHODS

This study uses a quantitative approach. The data used in this study are primary data with the population being Micro & Small Business (MSES) actors in the DKI Jakarta area (minus the Thousand Islands). The sampling technique is *purposive sampling* with the criteria that MSES actors have had a business for at least 2 (two) years in the DKI Jakarta area and are still running until 2024. Respondents were obtained as many as 361 MSES actors spread across East Jakarta (104 respondents), Central Jakarta (40 respondents), West Jakarta (97 respondents), North Jakarta (57 respondents), and South Jakarta (63 respondents). The data collection technique was carried out through *offline surveys* (interviews) and online using Google Form. The instrument used to collect data was a questionnaire. This research is descriptive and exploratory. The method used in this study uses multiple linear regression analysis, interaction tests and ANOVA test. Validity and reliability tests were conducted before the multiple linear regression analysis.

Validity testing is performed by examining the factor loading values. The data is considered valid if the factor loading value is  $>0.05$ . After the validity test, a reliability test is performed. Reliability testing is performed by examining the Cronbach's alpha value. The data is considered reliable if the Cronbach's alpha value is  $>0.06$  (Hair Jr. et al., 2019).

The next step is to conduct a multiple linear regression analysis to determine the effect of financial inclusion on the performance of micro and small businesses. The research variables used

in this multiple linear regression analysis consist of one dependent variable (Y) and 14 independent variables (X). The 14 independent variables consist of three independent variables for financial inclusion based on Sarma, (2012) and 11 independent variables for socio-demographic factors. The following table shows the operational definitions of the financial inclusion variables:

| Table 1. Financial Inclusion Operational Variable |   |                 |  |                        |
|---|---|-----------------|--|------------------------|
| No  | Variables   | Dimensions      | Indicator  | Data source            |
| 1.  | Financial Inclusion (Sarma, 2012, and POJK No. 3 of 2023) | Access          | Know the services and/or products of banking institutions or other financial services institutions.                                    | Micro & Small Business |
|   |   |                 | Have the ability to use the services and/or products of banking institutions or other financial services institutions.                 | Micro & Small Business |
|   |   |                 | Able to pay the costs of using products and/or services of banking institutions or other financial services institutions               | Micro & Small Business |
|   |   | Availability    | Use internet services to access banking services and/or products or other financial services institutions.                             | Micro & Small Business |
|   |   |                 | The existence of financial service offices of conventional banks/financial institutions in the MSEs area (branch offices/sub-branches) | Micro & Small Business |
|   |   |                 | The existence of ATM services from conventional banking institutions / financial services institutions around the MSEs area            | Micro & Small Business |
|   |   |                 | Banking institutions and/or financial services institutions provide services quickly.  | Micro & Small Business |
|   |   |                 | Banking and/or financial services institutions provide appropriate financial services and/or products to meet business needs.          | Micro & Small Business |
|   |   | Usage           | Use of service facilities and/or products of banking institutions and/or financial services institutions by MSMEs                      | Micro & Small Business |
|   |   |                 | Use of capital loan products from banks and/or other financial services institutions   | Micro & Small Business |
|   |   |                 | Use of conventional digital financial facilities (QRIS, Mobile Banking, Internet Banking)  | Micro & Small Business |
| 2.  | Performance (Fatihudin, 2018; Kasmir, 2021)               | Business Growth | Sales Level  | Micro & Small Business |
|   |   |                 | The number of customers.   | Micro & Small Business |

|        |                       |                        |
|--------|-----------------------|------------------------|
|        | Business capital.     | Micro & Small Business |
| Profit | The amount of profit. | Micro & Small Business |

These are the mathematical models used in this study:

$$Y = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \beta_8 X_{8i} + \beta_9 X_{9i} + \beta_{10} X_{10i} +$$

$$\beta_{11} X_{11i} + \beta_{12} X_{12i} + \beta_{13} X_{13i} + \beta_{14} X_{14i} + \epsilon_i \quad \dots\dots\dots(1)$$

$$Y = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_5 X_{5i} * X_{9i} \epsilon_i \quad \dots\dots\dots(2)$$

$$Y = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_5 X_{5i} * X_{11i} \epsilon_i \quad \dots\dots\dots(3)$$

$$Y = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} * X_{14i} \epsilon_i \quad \dots\dots\dots(4)$$

Information:

Y = Performance of micro and small businesses

$\beta_0$  = Constant

$\beta_1, \beta_2, \dots, \beta_{14}$  = variable coefficients  $X_1, X_2, \dots, X_{14}$

$X_{1i}$  = Access -i

$X_{2i}$  = Availability -i

$X_{3i}$  = Usage -i

$X_{4i}$  = gender -i

$X_{5i}$  = generation -i

$X_{6i}$  = Education -i

$X_{7i}$  = Location-i

$X_{8i}$  = Work type -i

$X_{9i}$  = Business period -i

$X_{10i}$  = Scale -i

$X_{11i}$  = Financial Service usage -i

$X_{12i}$  = Financial type-i

$X_{13i}$  = Credit usage -i

$X_{14i}$  = Loan term -i

$\epsilon_i$  = Error -i

After multiple linear regression analysis was conducted according to equation (1), the author conducted an interaction test according to equations (2), (3), and (4). Furthermore, the author conducted a test for difference using ANOVA to determine the performance differences between micro and small business groups that received conventional financial inclusion, sharia financial inclusion, and micro and small business groups that did not receive financial inclusion.

## RESULTS AND DISCUSSION

### Descriptive Analysis

Based on respondent data, it is known that most MSEs actors in the DKI Jakarta area are women at 61.77%. This condition illustrates that women not only have a domestic role in the household but also have a significant role in business performance. The education of the majority of MSEs actors is high school graduates at 57.34% so it can be believed that MSEs actors have the ability to understand information related to financial inclusion. Meanwhile, in terms of generation, the majority of MSEs actors in this study are generation Y (aged between 29-44 years) which means that they are a generation that is included in the productive age group that is able to carry out many activities well. On the other hand, the majority of years in businesses is 5-10 years, so that MSEs

actors are considered to have sufficient business experience in running a business. The location of the MSEs actors' businesses in this study is mainly in East Jakarta. However, this condition is not much different from the description of the micro and small industry profile conveyed by Statistic Indonesia (2023). The type of business of the majority of MSEs actors is a trading business that is suspected to be easy to do by business actors with limited capital.

Meanwhile, according to Statistic Indonesia data (2023), the scale of the MSEs in this study mainly was micro-scale businesses characterized by the number of workers between 1-4 people. Most MSEs in this study ran their own businesses or were assisted by their families. This happened because MSEs had limited capital to pay employee salaries. Based on respondent data, 84.49% of MSEs had used financial products and services, but most of these MSEs, 68.14%, used them only for financial transactions such as transfers, mobile banking, and Qris. The financial service institutions that were used mainly by MSEs were conventional financial service institutions, amounting to 61.77%. Meanwhile, MSEs who used Sharia financial service institutions were 22.71% and the remaining 15.51% did not use financial services. Other interesting information obtained from respondents is that most MSEs actors do not use loan products from financial services institutions because they do not need loans (38.89%) and do not comply with their principles and beliefs (22.23%).

### Results of Validity, Reliability, and Classical Assumption Tests

Validity and reliability tests were conducted before the multiple linear regression analysis. In the first validity and reliability test, it was found that indicator U1 had a factor loading value of 0.321, U2 of 0.799, and U3 of 0.266, resulting in a reliability value of only 0.5610, indicating that the variable was unreliable. To address this issue, indicator U2 was excluded from subsequent validity and reliability tests.

The following are a summary of the results of the validity and reliability tests after excluded U2 and also a summary of classical assumption test:

Table 2. Results of Validity and Reliability

| Construct                      | Indicator | Factor Loading | Valid              |
|--------------------------------|-----------|----------------|--------------------|
| Access                         | A1        | 0.725          | Yes                |
|                                | A2        | 0.802          | Yes                |
|                                | A3        | 0.654          | Yes                |
|                                | A4        | 0.753          | Yes                |
| Reliability (Cronbach's alpha) |           |                | 0.8186 (Good)      |
| Availability                   | B1        | 0.846          | Yes                |
|                                | B2        | 0.876          | Yes                |
|                                | B3        | 0.829          | Yes                |
|                                | B4        | 0.733          | Yes                |
| Reliability (Cronbach's alpha) |           |                | 0.8907 (Good)      |
| Usage                          | U1        | 0.715          | Yes                |
|                                | U3        | 0.657          | Yes                |
| Reliability (Cronbach's alpha) |           |                | 0.6366 (Good)      |
| Performance                    | K1        | 0.910          | Yes                |
|                                | K2        | 0.904          | Yes                |
|                                | K3        | 0.926          | Yes                |
|                                | K4        | 0.771          | Yes                |
| Reliability (Cronbach's alpha) |           |                | 0.9375 (Excellent) |

Based on Table 2, it is known from the results column that the data used in this study are valid and reliable. From Table 2 above, it is clear that the data meet the requirements for validity and reliability. This is indicated by the fact that the factor loading value for each construct is  $> 0.06$ ,

thus categorizing the data as valid. Furthermore, the data is also considered reliable because the Cronbach's alpha value is  $> 0.06$ .

The following are the results of the classical assumption test conducted in this study:

### Normality Test

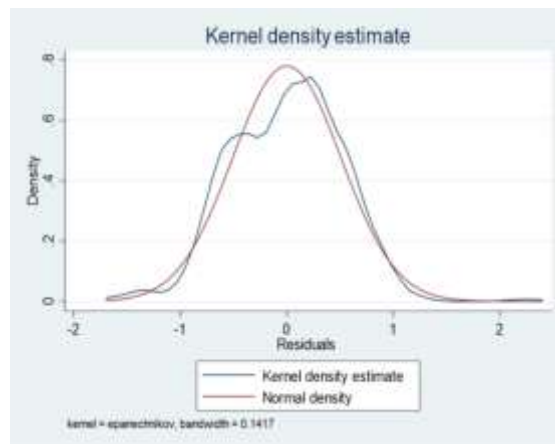


Figure 1. Histogram Graph

Tabel 3. Normality Test

| Variable | Obs | Pr(Skewness) | Pr(Kurtosis) | Adj   | Chi2(2) |
|----------|-----|--------------|--------------|-------|---------|
| resid    | 361 | 0.942        | 0.067        | 3.360 | 0.186   |

Figure 1 shows that the data distribution follows a bell-shaped pattern, so the data is normally distributed. Table 3 shows a chi-square value of 0.186, or  $> 0.05$ , indicating that the residual data is normally distributed. Meanwhile, the Pr (skewness) value of 0.942, or  $> 0.05$ , indicates that the data distribution does not deviate from symmetrical conditions or is not skewed.

### Heteroscedasticity Test

The following are the results of the heteroscedasticity test:

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity  
Assumption: Normal error terms  
Variable: Fitted values of Performance

H0: Constant variance

chi2(1) = 0.21  
Prob > chi2 = 0.6443

From the test results above, it is known that the Prob value  $> \text{chi2} = 0.6443$  or  $> 0.05$ , so that the error variance does not have a heteroscedasticity problem.

### Multicollinearity Test

The following are the results of the multicollinearity test:

Table 4. Multicollinearity Test

| Variable     | VIF  | 1/VIF    |
|--------------|------|----------|
| usefinance-v | 4.09 | 0.244204 |
| financialt-e | 3.91 | 0.255799 |
| credit       | 2.72 | 0.367865 |
| Access       | 2.46 | 0.406871 |
| Availability | 2.45 | 0.407378 |
| loanterm     | 2.28 | 0.438645 |
| Usage        | 1.90 | 0.525348 |
| businessline | 1.25 | 0.800424 |
| education    | 1.22 | 0.822738 |
| generation   | 1.18 | 0.845828 |
| scale        | 1.13 | 0.882726 |
| location     | 1.11 | 0.900592 |
| worktype     | 1.07 | 0.933732 |
| gender       | 1.04 | 0.959546 |
| Mean VIF     | 1.99 |          |

Based on Table 4, it is known that the VIF value for each variable is  $< 5$ , and the mean VIF value is 1.99 or  $< 5$ , so that in this study, there is no indication of multicollinearity problems between independent variables.

### Multiple Linear Regression Analysis Results

Multiple Linear Regression Analysis was conducted to see the influence of financial inclusion (which has three dimensions, namely access, availability, and use) and socio-demographic factors on the performance of Micro and Small Enterprises in the DKI Jakarta Region.

The following are the results of multiple linear regression analysis between financial inclusion and socio-demographic factors on the performance of Micro and Small Enterprises in the DKI Jakarta Region:

Table 5. Multiple Linear Regression Results

| Performance     | Coefficient | P>    | t |                                  |
|-----------------|-------------|-------|---|----------------------------------|
| Access          | .1588122    | 0.036 |   | $Prob > F = 0.0000$              |
| Availability    | .3091006    | 0.000 |   | $R\text{-Squared} = 0.3687$      |
| Usage           | .4290687    | 0.000 |   | $Adj\ R\text{-squared} = 0.3432$ |
| Gender          | .7387838    | 0.002 |   |                                  |
| Generation      | -.1529798   | 0.344 |   |                                  |
| Education       | -.2004566   | 0.225 |   |                                  |
| Location        | -.0307519   | 0.752 |   |                                  |
| Worktype        | -.2101494   | 0.307 |   |                                  |
| Business period | -.3540668   | 0.002 |   |                                  |
| Scale           | .4413426    | 0.175 |   |                                  |
| Usefinanceserv  | -.2984073   | 0.756 |   |                                  |
| Financial type  | -.2236737   | 0.460 |   |                                  |
| Credit          | -.0847086   | 0.838 |   |                                  |
| Loan term       | .0166662    | 0.901 |   |                                  |
| -Cons           | 2.816972    | 0.071 |   |                                  |

Source: Stata 17 output, processed by the author

Based on Table 5 above, it is known that financial inclusion has a significant and positive influence on the perception of MSES performance as seen from the P-value of access of 0.036, the P-value of availability and use of 0.000, which means  $< 0.05$ , and a positive coefficient value. Meanwhile, 2 (two) socio-demographic variables (gender and business time) also have a

significance value of  $< 0.05$ , which is 0.002. However, for business time (business age), it has a negative direction of influence. This explains that MSEs actors with female gender positively and significantly influence the perception of MSEs performance. In contrast, the age of the MSEs business significantly negatively influences the perception of MSEs performance. This means that MSEs actors whose business age is relatively new have a higher perception of performance than MSEs actors whose business age is older.

The results of this study regarding the positive impact of financial inclusion on MSEs performance are in line with research conducted by Hilmawati & Kusumaningtias, (2021); End of (2021); Oke et al., (2023); Febriansyah et al., (2024), while the findings regarding the role of female gender, which has a positive and significant influence on the perception of MSEs performance, are also in line with research conducted by Indriani et al., (2024); Agustini, F, Aprinawati, Nurani, (2025). As for the findings that MSEs actors with a relatively new business age have a higher performance perception compared to MSEs actors whose business age is relatively older, this is due to the inability of MSEs to continue to develop over time or in other words, MSEs actors with a more extended business age experience business stagnation with various obstacles, especially capital constraints.

From Table 5, it is also known that the multiple linear regression equation from this study is as follows:

$$Y = 2.816 + 0.158X_1 + 0.309X_2 + 0.429X_3 + 0.738X_4 - 0.152X_5 - 0.200X_6 - 0.030X_7 - 0.210X_8 - 0.354X_9 + 0.441X_{10} - 0.198X_{11} - 0.223X_{12} - 0.084X_{13} + 0.016X_{14}$$

Where  $Y$  = MSEs Performance;  $X_1$ =Access;  $X_2$ =Availability;  $X_3$ =Usage;  $X_4$ =Gender;  $X_5$ =generation;  $X_6$ =Education;  $X_7$ =Location;  $X_8$ =Business Type;  $X_9$ =Business time;  $X_{10}$ =Scale;  $X_{11}$ =Use financial service & product;  $X_{12}$ =Financial Type;  $X_{13}$ =Use Credit Product;  $X_{14}$ =Loan Term.

### Results of Multiple Linear Regression Analysis and Interaction Test

An interaction test was conducted after conducting multiple linear regression analyses to test the moderating effect of the independent variables of socio-demographic factors on MSEs performance. The following are the results of the multiple linear regression test and interaction test:

Table 6. Regression and Interaction Tests between Financial Inclusion Variables and Generation and Use of LJK (model 2)

| Performance                | Coefficient | P>    | t | Prob > F = 0.0000      |
|----------------------------|-------------|-------|---|------------------------|
| Access                     | .1515611    | 0.042 |   | R-Squared = 0.3583     |
| Availability               | .3248751    | 0.000 |   | Adj R-squared = 0.3399 |
| Usage                      | .4142318    | 0.000 |   |                        |
| Generation                 |             |       |   |                        |
| 2                          | -4.572632   | 0.041 |   |                        |
| 3                          | -5.604572   | 0.013 |   |                        |
| 4                          | -4.425241   | 0.069 |   |                        |
| 1.usefinanceserv           | -5.254071   | 0.022 |   |                        |
| Generation #usefinanceserv |             |       |   |                        |
| 2 1                        | 5.390622    | 0.020 |   |                        |
| 3 1                        | 5.92966     | 0.011 |   |                        |
| 4 1                        | 5.576602    | 0.027 |   |                        |
| -cons                      | 6.497875    | 0.006 |   |                        |

Source: Stata 17 output, processed by the author

From Table 6 above, it is known that the results of the regression of financial inclusion variables and the interaction test between generations and the use of financial service institutions

provide results that the influence of financial inclusion and the use of financial service institutions by all generations provides a significant positive performance perception. This is known from the P-value of financial inclusion and the P-value of the interaction test, which is <0.05.

Meanwhile, Table 7 presents the results of the regression analysis and interaction test between financial inclusion variables and the interaction test between generation and the length of business (business periode) of MSEs actors:

Table 7. Regression Analysis and Interaction Test between Financial Inclusion and Generation and Length of Business of MSEs Actors (model 3)

| Performance                | Coefficient | P> | t     |                               |
|----------------------------|-------------|----|-------|-------------------------------|
| Access                     | .2143263    |    | 0.002 | Prob > F = 0.0000             |
| Availability               | .3125242    |    | 0.000 | <b>R-Squared = 0.3956</b>     |
| Usage                      | .4038133    |    | 0.000 | <b>Adj R-squared = 0.3688</b> |
| Generation                 |             |    |       |                               |
| 2                          | 1.244296    |    | 0.291 |                               |
| 3                          | .7272535    |    | 0.517 |                               |
| 4                          | .8219673    |    | 0.468 |                               |
| Business period            |             |    |       |                               |
| 2                          | -1.961167   |    | 0.413 |                               |
| 3                          | 2.384922    |    | 0.203 |                               |
| 4                          | -.6589412   |    | 0.624 |                               |
| 1.usefinanceserv           |             |    |       |                               |
| Generation #businessperiod |             |    |       |                               |
| 2 2                        | .8623384    |    | 0.726 |                               |
| 2 3                        | -3.64856    |    | 0.065 |                               |
| 2 4                        | -.355897    |    | 0.808 |                               |
| 3 2                        | .6494934    |    | 0.790 |                               |
| 3 3                        | -4.649703   |    | 0.018 |                               |
| 3 4                        | -.3179244   |    | 0.827 |                               |
| 4 2                        | .7608715    |    | 0.769 |                               |
| 4 3                        | -2.086301   |    | 0.390 |                               |
| 4 4                        | .2568202    |    | 0.872 |                               |
| -cons                      | 1.216081    |    | 0.350 |                               |

Table 7 shows financial inclusion's positive and significant influence on performance perception. At the same time, the interaction between generation and business length has a negative and significant relationship in Generation Y, who have a business age of 10-15 years. This means that if there is a change of 1 (one) unit in generation Y who has a business of 10-15 years, the perception of performance will decrease by -4.649703. This is possible considering that most constraints on MSEs are capital constraints. In contrast, in this study the majority of actors do not use loan products or rely on their capital so that increasing business age does not cause increased performance but rather decreased performance due to tight business competition between MSEs actors, especially conventional MSEs actors with other business actors who currently rely heavily on digital social media businesses, for example through IG, Tiktok Shop, Shopee, etc.

The following is Table 8, which presents the results of the regression analysis and interaction test between the financial inclusion variables with gender and the type of financial service institutions used:

Table 8. Regression Analysis and Interaction Test between Financial Inclusion Variables with Gender and Type of Financial Service Institutions Used

| Performance          | Coefficient | P>    | t |                               |
|----------------------|-------------|-------|---|-------------------------------|
| Access               | .1186224    | 0.112 |   |                               |
| Availability         | .3264031    | 0.000 |   | <i>Prob &gt; F = 0.0000</i>   |
| Usage                | .4088361    | 0.000 |   | <i>R-Squared = 0.3545</i>     |
| 2. gender            | .4340707    | 0.161 |   | <i>Adj R-squared = 0.3398</i> |
| Financial Type       |             |       |   |                               |
| 2                    | -.3054171   | 0.496 |   |                               |
| 3                    | -1.077934   | 0.039 |   |                               |
| Gender#financialtype |             |       |   |                               |
| 2 2                  | .0782944    | 0.892 |   |                               |
| 2 3                  | 1.324382    | 0.046 |   |                               |
| -cons                | 2.118116    | 0.007 |   |                               |

Source: Stata 17 output, processed by the author

Table 8 shows that the regression results of financial inclusion variables and the interaction test between gender and the type of financial institution used provide positive and significant performance perception results on the availability and usage variables. In contrast, the interaction test between gender and the financial service institutions used provides positive and significant values for women who do not receive financial inclusion. According to the respondents' data in this study, women are the majority of MSEs actors in the DKI Jakarta area and do not use financial products and services. Research of Ghosh & Vinod, (2017) explains that women have 8% fewer obstacles in accessing formal finance and 6% more difficulty in accessing informal finance, so most female MSEs actors try without using access to financial products and services.

### ANOVA Test Results

The respondents used in this study were 361 respondents, consisting of 223 MSME actors who used Conventional Financial Services Institutions, 82 MSME actors who used Sharia Financial Services Institutions, and 56 MSME actors who did not use financial services institutions.

From the 361 respondents, an ANOVA test was conducted to see the differences in performance between the three groups of MSEs actors, and the results can be seen in Table 9 and the picture describing the three MSEs actors as follows:

Table 9. Descriptive Statistics

| Performance       | N   | Mean   | P-values |
|-------------------|-----|--------|----------|
| Conventional Bank | 223 | 2.8430 | 0.152    |
| Sharia Bank       | 82  | 2.7287 |          |
| Not Using         | 56  | 2.5179 |          |
| Total             | 361 | 2.7666 |          |

Source: Stata 17 output, processed by the author

Table 9 above shows that the performance significance value between micro and small business groups is 0.152, or  $> 0.05$ , indicating that the performance difference between these groups is not significant. Performance differences occurred between the micro and small business groups that received conventional financial inclusion, the micro and small business groups that received Sharia financial inclusion, and the group that did not receive inclusion, but these differences were insignificant.

The following is a graphic image that provides a visual depiction of the performance of the three groups of micro and small business actors in DKI Jakarta:

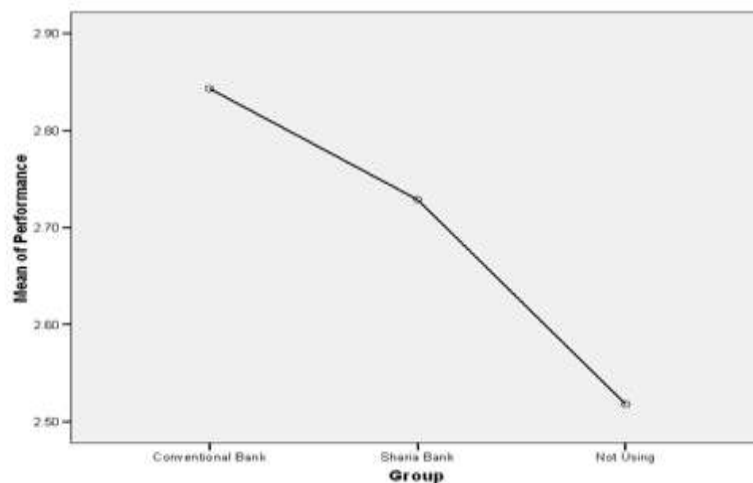


Figure 2. Comparison of Performance Between Respondent Groups  
*Source: Stata 17 output*

Based on Figure 2, it can be seen that the performance of the MSEs group that uses conventional financial service institutions is the highest when compared to the MSEs group that uses sharia financial service institutions and the MSEs group that does not use financial service institutions. Meanwhile, the MSEs group that does not use financial service institutions has the lowest performance compared to the other two MSEs groups. However, from statistical data, it is known that the differences that occur are not significant.

Previous research on the performance of micro and small businesses that have benefited from both conventional and Islamic financial inclusion has varied widely. Hilmawati & Kusumaningtias, (2021) and Usmaniyah & Abrori, (2024) found that financial inclusion had no impact on the performance of micro and small businesses. Meanwhile Lumenta & Worang, (2019) found that financial inclusion had a positive impact on the development of micro and small businesses in North Sulawesi. This aligns with research conducted by Rinofah et al., (2022) which explained that financial inclusion has a positive and significant impact on the performance of micro and small businesses in the Gunung Kidul area. Rumasukun & Maharani, (2024) in their research on Islamic financial inclusion found that financial inclusion has a positive and significant impact on the performance of micro and small businesses in Probolinggo. From the several studies mentioned above, it is known that the differences in research results related to financial inclusion, both conventional financial inclusion and Islamic financial inclusion on the performance of micro and small businesses in various regions have many factors such as the level of financial literacy possessed by micro and small business actors which differs in each region, the level of quality of financial management used by micro and small business actors, the adoption of financial technology used and many other things.

## CONCLUSION

This study shows that financial inclusion, consisting of access, availability, and use, positively and significantly influences Micro and Small Enterprises (MSEs) performance perception. These results align with research conducted by Kusuma et al. (2022), Anggraeni et al. (2013), and Septiani and Wuryani (2020). Good financial inclusion will open up access for MSEs actors to obtain capital and financial services through various loan products and digital services so that they can support the growth of MSEs over time and increase the scale of business to a higher scale. The new thing found in this study is that the financial inclusion variable, together with the female gender variable and the age of the business variable, has a significant influence on the perception of MSEs performance. The significant role of female gender on MSEs performance clarifies that women's position is not only in domestic affairs but also in business development. In addition, the

age factor of a new business has a positive performance perception compared to MSEs actors whose business age is longer; this happens because the age of a new business tends to still be in the growing business cycle and has not entered the *mature stage*. Furthermore, this study found that all generations who use financial services institutions have a positive and significant perception of performance. Hence, financial inclusion needs to be maintained and improved to impact all micro and small business actors in all generations positively and continue to grow and develop. Based on the significance value in the difference test between groups, Islamic financial inclusion together with conventional financial inclusion is not significant in providing a positive impact on the performance of micro and small businesses in the DKI Jakarta area. This is due to various reasons, such as the level of financial literacy possessed by micro and small business actors which differs in each region, the level of quality of financial management used by micro and small business actors, the adoption of financial technology used and many other things. Specifically for Islamic financial inclusion, it is known that the number of users of Islamic financial products and services is still lower than that of conventional financial products and services. In line with this, the performance of micro and small businesses using Islamic financial products and services is also lower than that of micro and small businesses using conventional financial products and services. According to Indonesia Financial Service Authority (2024), low Islamic financial inclusion is caused by various reasons, such as low public literacy regarding Islamic finance, complicated requirements imposed by Islamic financial service institutions, products and services that are not varied enough and cannot meet the needs of business actors, limited access to Islamic financial services, lack of support from leaders or religious communities to recommend the use of Islamic financial products and services, high costs, and the belief that Sharia financial institutions are not yet free from usury and other factors. The low of Islamic financial inclusion needs to be studied further so that the role of Islamic financial inclusion can significantly positively impact the performance of micro and small businesses in each region, especially the DKI Jakarta region, which has the highest financial inclusion index value in Indonesia.

Based on the conclusions above, here are some suggestions obtained from the results of this study. First, Improving Financial Access and Literacy, especially for women who have a significant role in the performance of MSEs. Second, Increasing Access and Literacy of Sharia Finance for the community so that Sharia financial inclusion can increase its role. Third, Development of Relevant and Affordable Products, especially in increasing the use of loan products by micro and small business actors. Fourth, Expansion of Financial and Digital Infrastructure for micro and small business actors is through cluster-based digital transformation. Fifth, More Intensive Business Assistance Strategy for MSEs. Sixth, Monitoring and Evaluation of Financial Inclusion Programs by the National Council for Financial Inclusion.

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