

# Determinants of Financial Inclusion and Financial Well-Being of MSMEs Entrepreneurs in Lamandau Regency

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## Abstract

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in the Indonesian economy, significantly contributing to job creation and economic growth. The financial inclusion and well-being of MSME entrepreneurs are key factors in enhancing their performance and competitiveness. This study aims to explore the factors influencing financial inclusion and well-being through intervariable testing. It examines four independent variables: financial literacy, accessibility, affordability, and utilization. The research was carried out in Lamandau Regency, involving 98 respondents from an MSME communication forum. Data were analyzed using the smart-PLS application, and the questionnaire was distributed electronically. The hypothesis testing results indicate that the independent variables have an effect on the dependent variable. The study concludes that financial literacy is a crucial factor for financial inclusion and has a significant impact on financial well-being. Theoretically, this research may introduce new models or concepts that broaden the understanding of the subject and, practically, it can offer recommendations for policy development by governments or relevant institutions.

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## 1. Introduction

Governments in developing nations, including Indonesia, have prioritized financial inclusion as a key agenda. In Indonesia, Presidential Regulation No. 114 of 2020 establishes the framework for achieving the National Strategy for Financial Inclusion (SNKI), aimed at promoting economic growth, reducing income disparity, and enhancing national welfare through a financial system accessible to all segments of society (Limanseto, 2021). A well-organized financial system facilitates access to various banking services, including savings, credit, payments, and insurance, making them available to everyone. The World Bank's 2020 objective is for all countries to reach the goal of universal financial access through financial inclusion (Nandru et al., 2021).

Global economic development is significantly influenced by the financial inclusion index, which serves as a policy tool that can directly boost the growth and stability of producer and consumer households, thereby reducing poverty and inequality (Soederberg, 2019). Financial inclusion encompasses activities that broadly support the business sector by removing obstacles to public access to financial services, such as understanding, obtaining, and using them (Anwar, 2022). In Indonesia's macroeconomic context, financial inclusion enhances the integration of the domestic financial system, which, in turn, impacts government financial policies. The effectiveness of monetary policy can be gauged by the inflation rate. When Bank Indonesia forecasts either the upper or lower bounds of the inflation target, it implements various measures to keep inflation within the desired range. This progress can be observed in both regional and national financial inclusion indices. The Financial Services Authority's National Financial Literacy

Survey reveals that in Central Kalimantan Province in 2022, the financial literacy index was 49.68%, and the financial inclusion index was 85.10%. Additionally, a 2023 report from the Central Statistics Agency showed that as of March 2023, the Gini Ratio for inequality in population spending in Central Kalimantan was 0.369, up by 0.003 points from September 2022's 0.366. The Gini Ratio in urban areas was 0.300, an increase of 0.392 points compared to September 2022, while in rural areas it was 0.318, a decrease of 0.326 points from September 2022.

An individual is deemed financially literate when they possess the capability to assess various options and make well-informed financial decisions (Grohmann et al., 2019). Financial literacy encompasses aspects aligned with financial education, which helps individuals understand financial terminology, institutions, and solutions to financial issues, thereby guiding them towards accessing financial services (Opletalová, 2020). The insufficient access to funding sources, particularly for MSME entrepreneurs, is often due to inadequate financial literacy (Grohmann et al., 2019). Generally, in many countries, higher levels of financial literacy across different income brackets enhance access to formal financial institutions, with statistical evidence showing that financial literacy positively influences financial inclusion (Grohmann et al., 2019).

Accessibility refers to the community's ability to use financial services in a given area. This includes factors such as the ease of opening a bank account, the geographical proximity of residential areas to bank branches, the presence of automated teller machines (ATMs), and similar aspects (Cámara et al., 2019). Easy access to bank offices serves as an indicator of financial inclusion (Demirguc-kunt, 2022).

The affordability of banking services significantly impacts financial inclusion (Wickham, 2021). When financial services are affordable, communities can sustainably develop their economies (Littlefield et al., 2023). Usage pertains to the regularity and loyalty with which individuals utilize financial services or products, reflected by how often and for how long they engage with these services (Wickham, 2021). Factors such as Gross Domestic Product (GDP) and the Human Development Index (HDI) often influence financial service usage. Simply owning a bank account does not signify financial inclusion if the account is not actively used (Chandrarin et al., 2019).

Financial well-being is defined as achieving financial goals and enjoying life through financial security (Donath et al., 2015, as cited in Parulian & Ruslan, 2023). In a society with strong financial literacy, easy access to financial institutions, affordability of financial services, and effective use of financial resources, individuals will generally have a high financial inclusion index. This, in turn, leads to improved financial well-being (Wickham, 2021).

A study by Hanivan & Nasrudin (2019) in Indonesia identifies three sub-dimensions of financial inclusion: access, availability, and use. This framework is supported by Sarma & Pais (2008), who provide evidence of a close link between human development levels and financial inclusion. Socio-economic factors, including infrastructure readiness, income inequality, urbanization, and literacy, heavily influence financial inclusion indicators. The United Nations Development Program (UNDP) also considers banking penetration, availability, and use of banking services as dimensions of financial inclusion.

Kumari (2021) introduces a new dimension, impact, highlighting that impact and quality are the most significant determinants of financial inclusion, while actual usage is less influential. This study, conducted in Sri Lanka, found similarities in micro-entrepreneurs' conditions with those in Lamandau Regency. Research by Cámara (2019) on macro financial inclusion suggests three dimensions: usage (frequency and loyalty to financial institutions), barriers (obstacles in accessing financial services), and access (availability of financial systems).

Bhatia and Singh (2019) investigated how financial inclusion impacts women's empowerment in low-income urban areas. Their findings suggest that better financial access improves social empowerment, political education, and economic capacity for urban women. In Indonesia, financial literacy includes the accepted knowledge, practical skills, and beliefs that shape attitudes

and behaviors, thereby enhancing decision-making and financial management to improve overall well-being.

Based on this context, the aim of this study is to identify the factors influencing financial inclusion, using analytical tools to evaluate these determinants: financial literacy, accessibility, affordability, and usage. Additionally, the research model will explore how these dimensions of financial inclusion relate to financial well-being.

## 2. Research Method

This study was carried out by distributing questionnaires to a randomly chosen sample of MSME entrepreneurs in Lamandau Regency. The questionnaires were sent out electronically via an e-form to the MSME communication forum. Due to time constraints and limited human resources, 98 completed questionnaires were collected and analyzed using the Smart-PLS software. The analysis involved conducting outer model tests and hypothesis testing.

The variables examined in this study include:

- Independent Variables: Financial Literacy level, Accessibility level, Affordability level, Usage level
  - X<sub>1</sub>:FINL
  - X<sub>2</sub>:ACS
  - X<sub>3</sub>:AFR
  - X<sub>4</sub>:USG
- Y<sub>1</sub> is Intervening Variable : FI (Financial Inclusion level)
- Y<sub>2</sub> is Bound Variable: FWB (Financial Well-Being)

Variable measurements were based on a 5-point scale used in the survey questions, where 5 represents "strongly agree" and 1 represents "strongly disagree."

## 3. Results and Discussions

The results of the questionnaire from the study can be shown in table 1 below.

**Table 1.** Demografi Respondens

	Detail	Frequency	Presentage
Gender	Female	42	42,85%
	Male	56	57,15%
Education Level	Junior School	22	22,45%
	Secondary school	46	46,94%
	High school/higher diploma	27	27,55%
	S1	3	03,06%

Source: Data Process 2023

The descriptive statistical data presented in Table 2 reveals the following insights:

The results of the study on the financial literacy score were obtained with a score of 2.2 to 5, with an average score of 3.388. The results show that the respondents have a fairly adequate level of financial literacy, with an average score higher than the average of 3.20. With a standard deviation of 0.6933, it shows that the level of variability of respondents is around the average.

The score obtained at the accessibility level was between 2 to 5, with an average score of 3.398, and the result exceeded the average of 3.2. This shows that some respondents consider that financial institutions are easily accessible. The standard deviation value obtained is 0.6922 indicating the variation of respondents from the average value.

The results of the Affordability score level were obtained from 2 to 5, with an average of 3.468, the value was above the average of 3.25. that most respondents were able to access financial services with a Standard deviation of 0.69852 which shows a level of variation from the average.

The value of the results of the level of consistency and loyalty in using financial services, obtained a value between 2.33 to 5, with an average of 3.358, higher than the median of 3.16. A standard deviation of 0.57603 indicates a degree of variability around the mean.

Financial inclusion scores range from 2 to 5, with an average of 3.673, surpassing the median value of 3. The standard deviation of 0.71394 indicates the level of deviation from the mean.

Financial well-being scores range from 2 to 5, with an average of 3.341, which is above the median of 3.20. The standard deviation of 0.6234 reflects the degree of deviation from the average score.

The descriptive statistics of each indicator are presented in Table 2 below.

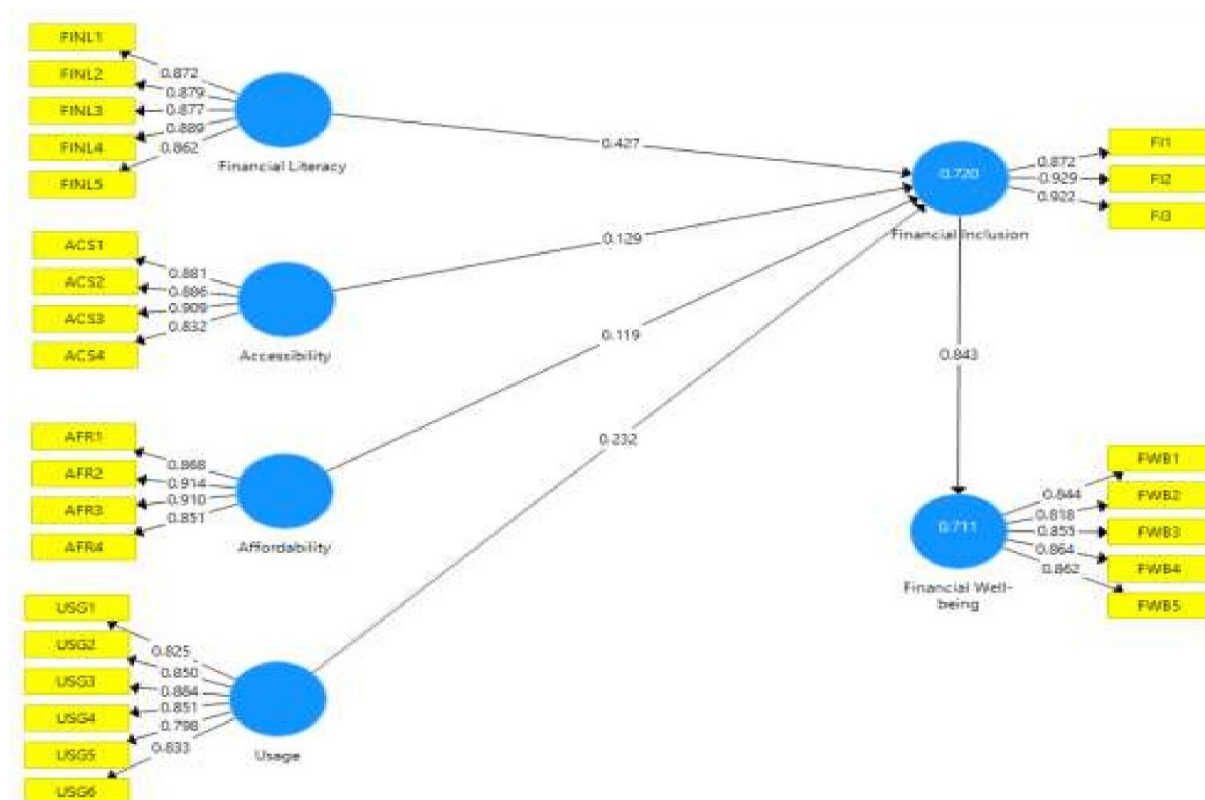
**Table 2.** Statistic Decriptive

	N	Minimum	Maksimum	Mean	Median	Std. Deviation
Financial Literacy level (FINL)	98	2,2	5,0	3,388	3,20	,6933
Accessibility level (ACS)	98	2,00	5,00	3,3980	3,20	,69222
Affordability level (AFR)	98	2,00	5,00	3,4668	3,25	,69852
Usage level (USG)	98	2,33	5	3,3588	3,16	,57603
Financial Inclusion level (FI)	98	2,00	5,00	3,3673	3,00	,71394
Financial Well-Being (FWB)	98	2,0	5,0	3,341	3,20	,6234
Valid (List)	N 98					

Source: Data Process 2023

### Evaluation of Measurement Model (Outer model)

The initial step involves verifying the indicators and latent variables to ensure readiness for the subsequent stages. The algorithm results will be reflected in the outer loading scores after conducting tests for convergence validity, discriminant validity, and significance. The output from the SmartPLS algorithm is displayed in Figure 2 below.



**Figure 1.** Algorithm Test Results

Figure 2 shows that the loading factors for X1 (Financial Literacy), X2 (Accessibility), X3 (Affordability), X4 (Usage), Y1 (Financial Inclusion), and Y2 (Financial Well-being) are all above 0.70. This indicates that each construct meets the necessary criteria. The data processing results verify that all constructs have reliable convergent validity for research purposes. The next step is to evaluate the composite reliability and Cronbach's alpha values, with the results for this research model presented in Table 3 below:

**Tabel 3.** Alpha Cronbach

Alpha Cronbach	
Financial Literacy level	0,924
Accessibility level	0,900
Affordability level	0,909
Use level	0,917
Financial Inclusion level	0,893
Financial well-being level	0,903

Source: Data Process 2023

All constructs exhibit a Cronbach's alpha value above 0.70, demonstrating their reliability and indicating that the variables have strong validity and reliability. The next step is to evaluate the validity of each construct by analyzing the Average Variance Extracted (AVE) values. An AVE value greater than 0.50 confirms overall validity. The results are summarized in Table 4 below.

**Table 4.** Extracted Average Variance (AVE)

	Average Variance Diekstraksi (AVE)
FINL level	0,767
ACS level	0,770
AFR level	0,785
USG level	0,706
FI level	0,824
FWB level	0,721

Source: Data Process 2023

After the model test and outer model stages are met, the next stage is to test the validity of the discrimination, as seen in table 5 below:

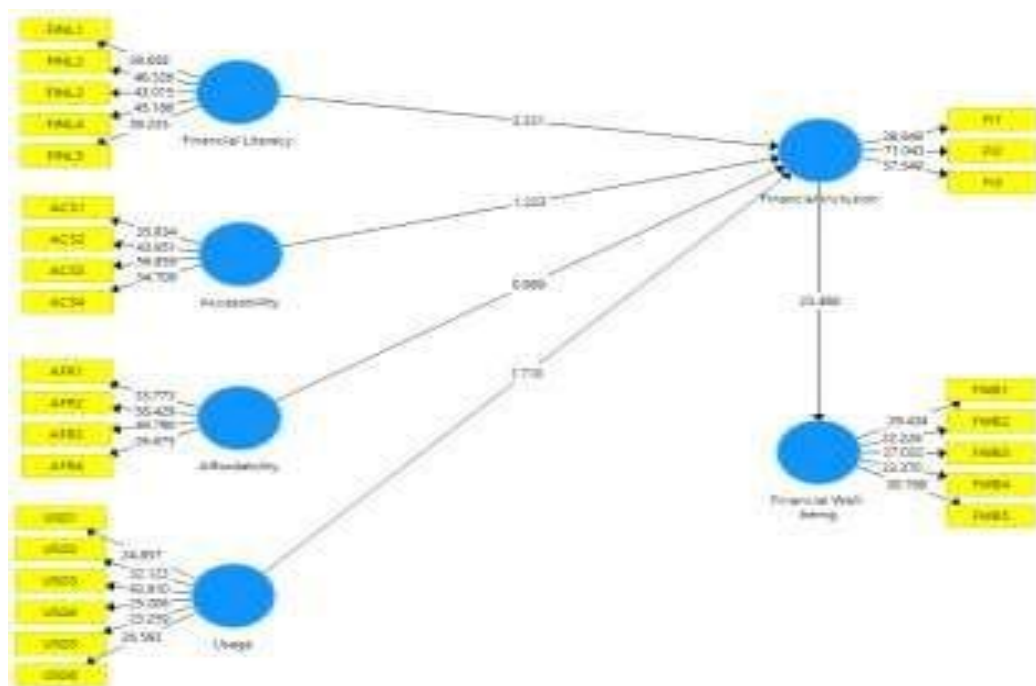
**Table 5.** Validity of Discrimination

	Financial Literacy	Accessibility	Affordability	Use	Financial Inclusion	Financial well-being
Financial Literacy level	0.876					
Accessibility level	0.822	0.877				
Affordability level	0.805	0.820				
Use level	0.817	0.806	0.837	0.840		
Financial Inclusion level	0.818	0.763	0.762	0.784	0.908	
Financial well-being level	0.830	0.760	0.826	0.829	0.843	0.849

Source: Data Process 2023

According to Table 5, the financial literacy variable has the highest discriminant validity root value compared to its correlations with accessibility, affordability, use, financial inclusion, and financial well-being. This pattern is consistent across other variables as well, confirming their eligibility.

The next step involves testing the values of the inner model and structural model. Below is an image of the Bootstrapping output.



**Figure 2.** Output bootstrapping

In assessing a model with PLS, the first step is to look at the R-square for each of the latent variables bound, as shown in table 6 below

**Table 6.** R Square

Y1 (Financial Inclusion level)	0,720
Y2 (Financial Well-Being)	0,816

Source: Data Process 2023

Table 6 indicates that the R-squared value for the financial inclusion variable is 0.720, meaning that 72% of the variance in financial inclusion can be attributed to financial literacy, accessibility, affordability, and usage. For financial well-being, the R-squared value is 0.816, suggesting that 81.6% of the variance in financial well-being is explained by financial literacy, accessibility, affordability, usage, and financial inclusion.

Hypothesis Testing:

To assess the effects of independent variables on the dependent variable, the path coefficients are used for hypothesis testing. Each proposed relationship is examined through bootstrap calculations in the SmartPLS software. The results of the structural model testing are detailed in Table 7 below.

**Table 7.** Path Coefficient

	Sample (O)	Average Sample (M)	Std Deviasi (STDEV)	T Statistic (IO/STDEVI)	P Result
FINL → Financial Inclusion level	0.428	0.431	0.128	3.334	0.001
ACS → FINL	0.127	0.129	0.105	1.204	0.229
AFR → FI level	0.120	0.115	0.117	1.024	0.306
Use → FINL	0.232	0.231	0.132	1.762	0.079
FINL → FWB	0.358	0.346	0.078	4.598	0.000

Source: Data Process

#### H1: Financial Literacy Affects Financial Inclusion

Financial literacy significantly impacts financial inclusion. Table 7 shows a T-value of 3.334, which exceeds the threshold of 1.96, indicating a substantial effect. The positive original sample value (O) confirms that financial literacy positively influences financial inclusion.

#### H2: Accessibility Affects Financial Inclusion

Accessibility does not significantly affect financial inclusion. Table 7 presents a T-value of 1.204, which is below 1.96, suggesting no significant impact.

#### H3: Affordability Affects Financial Inclusion

Affordability also does not significantly affect financial inclusion. The T-value is 1.024, below the 1.96 threshold, indicating no notable effect.

#### H4: Usage Affects Financial Inclusion

Usage has no significant effect on financial inclusion. The T-value of 1.762 is below 1.96, showing no significant impact from usage.

#### H5: Financial Inclusion Affects Financial Well-being

Financial inclusion significantly influences financial well-being. With a T-value of 4.598, exceeding 1.96, the effect is very significant. The positive original sample value (O) indicates a positive impact of financial inclusion on financial well-being. Table 7 also shows that financial literacy, affordability, and usage have a significant impact on financial well-being.

In the sample of MSMEs in Lamandau Regency, Central Kalimantan Province – Indonesia, financial literacy emerges as a crucial variable affecting financial inclusion. This finding highlights the need for enhanced financial literacy and education for MSME entrepreneurs to improve the government's financial inclusion index. This aligns with prior research demonstrating that higher financial literacy levels can improve access to formal financial institutions and enhance financial inclusion (Grohmann et al., 2019).

Despite good accessibility to financial institutions, this does not impact financial inclusion. As noted by Pambudianti et al. (2020), many MSMEs face challenges in financial management and utilization of financial services. Many MSME entrepreneurs fail to produce comprehensive financial reports, which hampers their ability to effectively use financial services.

Similarly, while MSME entrepreneurs can generally manage financial costs, affordability does not significantly impact financial inclusion. This is consistent with previous studies indicating that affordable banking services are crucial for financial inclusion (Wickham, 2021) and that accessible financial facilities support sustainable economic growth (Littlefield et al., 2023)

The usage variable also does not significantly influence financial inclusion, which contradicts Nandru et al. (2021) findings in India. This discrepancy suggests that while accessibility, affordability, and usage of financial services are adequate, they do not significantly boost the financial inclusion index. Financial literacy remains the key factor influencing MSME financial decision-making in Lamandau Regency.

The significant impact of financial inclusion on financial well-being underscores the importance of financial literacy in enhancing financial welfare. This supports Donath et al. (2015) and Parulian & Ruslan (2023), which state that financial well-being is achieved when financial goals are met and financial security is enjoyed. A society with strong financial literacy, accessible financial institutions, and manageable financial costs is likely to have a high financial inclusion index, leading to improved financial well-being.

## 4. Conclusions

The research findings indicate that financial literacy influences both financial inclusion and financial well-being, whereas accessibility, affordability, and usage do not significantly impact these outcomes. For MSME entrepreneurs in Lamandau Regency, Central Kalimantan Province,



Indonesia, improving financial literacy can be guided by the six aspects outlined by Titko et al. (2015). These include:

**Savings and Loans :** Understanding savings options, evaluating these alternatives, borrowing procedures, installment plans, and long-term financial planning.

**Personal Budgeting :** Budgeting income and expenses, preparing a balanced budget, and understanding the effects of taxation on income.

**Economic Knowledge :** Awareness of how local, regional, and global economic conditions impact business.

**Financial Concepts :** Basic concepts such as the time value of money, investment risk and return, and determining the appropriate break-even point.

**Financial Services :** Knowledge of both bank and non-bank financial products, including their benefits and risks.

**Investment and Risks :** Understanding investment options and associated risks.

These aspects should be addressed by MSME development institutions in the region to progressively enhance the financial literacy of MSME entrepreneurs.

While this study focuses on the impact of financial inclusion on financial well-being and its determinant factors, it does not delve deeply into the causal relationships between these determinants. Future research could explore these linkages further. Additionally, this study only considers the perspective of MSME entrepreneurs. Future investigations should also incorporate the viewpoints of financial service providers and government entities.

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