



# The Impact of Loan Amount and Interest Rates on Micro MSME Sales Growth

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## Abstract

Micro MSMEs are the backbone of the economy. This study analyzes the effect of the amount of bank loans on the sales growth of micro MSMEs. Using a simple linear regression analysis method, this study shows that an increase in the amount of loans significantly contributes to the sales growth of micro MSMEs. These results emphasize the importance of wider credit access for micro MSMEs to support their sales growth. This study also indicates that changes in interest rates do not have a significant effect on the sales growth of micro MSMEs. The policy implications of these findings are the need for more inclusive and affordable financing programs for micro MSMEs, as well as increasing their access to various alternative funding sources.

*Keywords:* MSME, interest rate, loan amount, simple linear regression analysis

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## 1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) are an important pillar in the Indonesian economy, contributing significantly to job creation and economic growth. Based on data from the Ministry of Cooperatives and SMEs, MSMEs contribute more than 60% of Indonesia's Gross Domestic Product (GDP) and provide jobs for more than 97% of the national workforce. With such a large contribution, the development of the MSME sector is a priority in supporting sustainable national economic growth.

However, despite their vital role, MSMEs face various challenges that can hinder their growth. One of the main challenges is limited access to financing. This issue has been an ongoing issue, considering that adequate access to financing can increase the ability of MSMEs to expand their business scale, increase productivity, and compete in a wider market. Without adequate access to financing, MSMEs often find it difficult to meet working capital needs, invest in new technologies, or even survive in dynamic market conditions.

This study aims to analyze the effect of the amount of bank loans on the growth of micro MSME sales. The focus of this study is on micro MSMEs because they are the group most vulnerable to limited access to financing. By using a simple linear regression analysis method, this study attempts to reveal the relationship between credit access and micro MSME sales performance. The results of the study are expected to provide a clearer picture of the importance of bank financing in supporting the development of micro MSMEs.

Several previous studies have shown that bank credit has a positive impact on economic growth and the development of MSMEs. For example, Tambunan (2019) analyzed the main obstacles faced by MSMEs in Indonesia in gaining access to financing. In his study, Tambunan analyzed the effect of the amount of loans on MSME sales growth using a survey of 200 MSMEs in several regions in Indonesia. The multiple linear regression method was applied to measure the effect of the amount of loans and interest rates on sales performance. Based on the results of the analysis, it was shown that the amount of loans had a significant positive impact on increasing MSME sales. However, this study also found that high interest rates tend to hinder business growth, because heavy interest burdens can reduce the profits obtained by MSME actors.

Furthermore, research by Maherika, Rahma Nurjanah, and Erni Achmad (2019) provides additional insight into the influence of bank credit on economic growth at the regional level. Their study conducted in Jambi City during the period 2002-2017 showed that working capital credit and investment credit had a significant influence on economic

growth in the region. Thus, this finding reinforces the importance of bank credit, especially in the form of working capital and investment credit, in driving economic growth both at the local and national levels.

However, despite empirical evidence showing the benefits of bank credit, the reality on the ground often shows that access to credit is uneven. Many micro MSMEs face obstacles in meeting banking administrative requirements, such as providing collateral, complete financial documents, and a good credit history. This causes most micro MSMEs to rely on informal sources of financing, such as loans from family, friends, or loan sharks, which often have higher interest rates and greater risks.

Through this study, we hope to provide deeper insights into the importance of wider credit access for micro MSMEs. By highlighting the influence of the amount of bank loans on sales growth, this study is expected to be the basis for policy recommendations that support increasing credit accessibility for micro MSME actors. One possible recommendation is the development of more inclusive and affordable financing programs, such as unsecured loans or low-interest credit programs supported by the government or international financial institutions.

In addition, increasing financial literacy among MSMEs is also an important step in increasing credit accessibility. Many MSMEs do not yet understand the importance of good financial management or how to prepare a proper credit proposal. Therefore, training and mentoring programs for MSMEs need to be strengthened to help them meet banking requirements and manage loan funds effectively.

On the other hand, banks also need to play an active role in supporting the development of micro MSMEs. For example, banks can adopt a more flexible approach in assessing creditworthiness, such as using non-traditional data to assess credit risk or working with financial technology (fintech) platforms to expand the reach of financial services. By utilizing digital technology, banks can reduce transaction costs and increase efficiency in channeling credit to micro MSMEs.

In addition, it is important to create a supportive ecosystem for the growth of MSMEs. This includes efforts to reduce regulatory barriers, increase access to markets, and provide adequate infrastructure for business actors. Support from the government, financial institutions, and the private sector is needed to create a conducive environment for MSME development.

In the context of globalization and digital transformation, MSMEs also need to adapt to changes in the business environment. The use of digital technology, such as e-commerce platforms, digital payment systems, and social media-based marketing, can help MSMEs increase their competitiveness and reach a wider market. However, to take advantage of these opportunities, MSMEs need access to adequate financing to adopt new technologies and develop their capacity.

Several previous studies have shown that bank credit has a positive impact on economic growth and the development of MSMEs. For example, Tambunan (2019), conducted an analysis of the main obstacles for MSMEs in Indonesia in gaining access to financing and analyzed the effect of the amount of loans on MSME sales growth, using a survey of 200 MSMEs in several regions in Indonesia and applying the multiple linear regression method to measure the effect of the amount of loans and interest rates on sales performance. Based on the results of the analysis, it was shown that the amount of loans had a significant positive impact on increasing MSME sales, while high interest rates tended to hinder business growth. Furthermore, Maherika, Rahma Nurjanah, and Erni Achmad (2019) conducted an analysis to assess the effect of working capital credit, investment credit, and consumer credit on economic growth in Jambi City during the period 2002-2017 and the results of the study showed that working capital credit and investment credit have a significant influence on the economic growth of the region, so that bank credit, especially in the form of working capital and investment credit, has a very important role in driving economic growth in Jambi Province.

Thus, this study not only aims to reveal the relationship between the amount of bank loans and sales growth of micro MSMEs, but also to provide recommendations that can help overcome the challenges faced by this sector. The findings of the study are expected to be the basis for more effective policy-making in supporting the development of micro MSMEs, which will ultimately contribute to inclusive and sustainable economic growth in Indonesia.

## **2. Literature review**

### **The influence of bank credit on MSMEs**

Research by Tambunan (2019) shows that access to credit is a crucial factor affecting the sales performance of MSMEs. Through a survey of 200 MSMEs, the results of multiple linear regression analysis show that the amount of loans has a significant impact on increasing sales, while high interest rates can hinder business growth. This is in line with findings that underline the importance of more inclusive financing policies to support MSMEs.

### **Working capital and investment credit**

Research by Maherika, Rahma Nurjanah, and Erni Achmad (2019) assessed the influence of working capital and investment credit on economic growth in Jambi City. The results showed that both types of credit had a significant

influence in driving economic growth, emphasizing that bank credit is not only important for individuals but also for the regional economy as a whole. These findings suggest that certain types of credit can have different impacts on MSME performance.

### **Interest rate**

Interest rate is the price of a loan, expressed as a percentage of the principal amount per unit of time. According to Sunariyah (2014), interest rate is a measure of the price of resources used by the debtor that must be paid to the creditor. Meanwhile, according to Hadi Ismanto (2019), interest is the reward received by the borrower for the money lent, and the interest rate is the ratio charged to the amount of the loan that incurs interest.

### **MSMEs**

UMKM stands for Micro, Small and Medium Enterprises. So that UMKM consists of three forms of business based on its scale, namely: Micro Enterprises, Small Enterprises and Medium Enterprises (Muheramtohadhi 2017). Research conducted by Supriyanto in (Suci 2017) states that UMKM has a contribution of more than 99.45% in absorbing labor and a contribution to GDP of 30%. By advancing and developing the UMKM sector, it will absorb more existing labor. So that it can improve the welfare of workers and reduce unemployment.

In accordance with Law Number 20 of 2008 concerning Micro, Small and Medium Enterprises (MSMEs), they consist of:

- a. Micro Enterprises are productive businesses owned by individuals and/or individual business entities that meet the criteria for Micro Enterprises as regulated in this Law.
- b. Small Business is a stand-alone productive economic enterprise, carried out by an individual or business entity that is not a subsidiary or branch of a company owned, controlled, or is part of either directly or indirectly a Medium Business or Large Business that meets the criteria of a Small Business as referred to in this Law.
- c. Medium Enterprises are independent productive economic enterprises, carried out by individuals or business entities that are not subsidiaries or branches of companies owned, controlled or become part of either directly or indirectly with small or large businesses with the amount of net assets or annual sales results as regulated in this Law. (Law No. 20 of 2008)

The criteria used to define MSMEs as stated in Article 6 are the net worth or asset value excluding land and buildings where the business is located or annual sales results (Syahputri and Firmansyah 2019).

## **3. Materials and Methods**

### **3.1. Material**

Quantitative research with a secondary data approach (Jaya, 2020; Martono, 2011) refers to a research method that utilizes information that has been previously collected by other parties. This includes the use of data obtained from scientific literature, public databases, administrative records, or datasets collected by other researchers or organizations. The main characteristics of this approach include the use of existing data such as statistical figures or survey results, the application of statistical analysis to test hypotheses, the importance of ensuring objectivity in data interpretation, and being aware of limitations that may be related to data quality and availability. This approach is also considered efficient in terms of time and cost because it does not require new data collection.

The main characteristic of this secondary data approach is the flexibility in utilizing existing data, such as national survey statistics, macroeconomic data, or social data compiled by survey institutions. In the process, this approach requires careful application of statistical analysis techniques to test previously formulated research hypotheses. In addition, it is important to ensure that data interpretation is carried out objectively and without bias, because objectivity is a fundamental aspect of quantitative research. Researchers must also be aware of certain limitations that may arise, for example related to data quality, data completeness, or limited coverage of available data.

Another advantage of this secondary data approach is the time and cost efficiency it offers. By using existing data, researchers do not need to collect new data which usually requires a lot of resources, either in the form of time, energy, or operational costs. Instead, researchers can immediately focus on analyzing the available data, so that the research process becomes faster and more cost-effective. However, although this approach has many benefits, researchers still need to be careful in choosing data sources to ensure their validity and reliability, because mistakes in choosing data can affect the overall research results.

### 3.2. Method

The data used in this study are secondary data. Secondary data are data that have been previously collected by other parties and are available for use in various studies. The data sources used in this study come from two main institutions, namely the Central Statistics Agency (BPS) and Regional Economic-Financial Statistics published by Bank Indonesia (BI). Data from BPS usually includes various national and regional statistics relevant to economic activities, such as data on micro, small, and medium enterprises (MSMEs), inflation rates, interest rates, and other economic indicators. Meanwhile, data from BI includes more specific financial information and regional economic-financial statistics, such as bank credit data, credit distribution, and regional financial trends. The combination of these two data sources provides a rich framework for understanding the effect of bank credit on the sales growth of micro MSMEs.

According to Sugiyono (2009), the descriptive analysis method is a type of statistical analysis that aims to analyze data by describing or depicting the data that has been collected as it is. This approach is not intended to make generalizations or conclusions that apply universally, but only to provide an empirical picture of the available data. The descriptive analysis method functions to reveal patterns, trends, or relationships between observed variables, thus providing important initial insights before moving on to more complex analysis.

In this study, the analysis used is not only limited to descriptive, but also includes an empirical approach to see the extent to which independent variables affect dependent variables. As explained by Sugiyono (2009), this method allows researchers to identify the presence of direct or indirect influence between the variables analyzed. The analysis technique used in this study is simple linear regression analysis. This technique was chosen because it is suitable for testing the relationship between one independent variable and one dependent variable, especially when researchers want to know the direction and magnitude of the influence of a variable on another variable.

In the context of this study, the independent variables analyzed are the types of bank credit based on the types financed, such as working capital credit, investment credit, or consumer credit. This independent variable is the focus because it is believed to have a direct impact on the economic performance of micro MSMEs, especially in terms of sales growth. On the other hand, the dependent variable or dependent variable in this study is the sales growth of micro MSMEs. This sales growth reflects how much MSMEs are able to increase their business results after gaining access to bank credit.

The simple linear regression analysis method allows researchers to evaluate the relationship between the amount of loans or types of credit and the level of sales growth. This analysis provides quantitative insights into how access to credit can drive the economic performance of micro MSMEs. In addition, this approach also provides an overview of whether certain variables, such as the type of credit or interest rates, have a significant effect on the dependent variable. Thus, this method is an important tool in understanding the cause-and-effect relationships relevant to this study.

To see the extent to which the independent variables influence the dependent variables, the formula used to find the development of working capital credit is:

$$PKMK = \frac{KMK_t - KMK_{t-1}}{KMK_{t-1}} \times 100\%$$

Information:

PKMK = Working capital credit development

$KMK_t$  = Current year working capital credit

$KMK_{t-1}$  = Previous year's working capital credit

#### 3.2.1. Formula / Equation

Simple Linear Regression Formula:

A simple linear regression model is used to analyze the relationship between the independent variable (loan amount) and the dependent variable (sales growth of micro MSMEs). The equation used is:

$$Y = \beta_0 + \beta_1 X + \epsilon.$$

Information:

- Y: Micro MSME sales growth

- $\beta_0$ : Constant (intercept)
- $\beta$ : Regression coefficient for the independent variable
- X: Loan amount
- $\epsilon$ : Residual error

(1)

### 3.2.2. Table

**Table 1:** Initial Data Table

Year	Loan Amount (RP)	Sales Growth (%)
2019	10,000,000	5
2020	12,000,000	6.5
2021	15,000,000	7.8
2022	20,000,000	10

**Table 2:** Regression Coefficients

Variables	Coefficient	P-Value
Constants	3.2	0.001
Loan Amount	0.8	0.000
Interest Rate`	-0.02	0.234

## 4. Results and Discussion

### Results

#### 1. Loan Amount:

The results of the analysis show that the loan amount variable has a regression coefficient with a p-value  $< 0.05$ . This means that every Rp1,000,000 increase in the loan amount will increase the sales growth of micro MSMEs by 0.8%.

#### 2. Interest rate:

Interest rates have a regression coefficient with a p-value  $> 0.05$ , indicating that changes in interest rates do not have a significant effect on sales growth.

#### 3. Statistical Relationship:

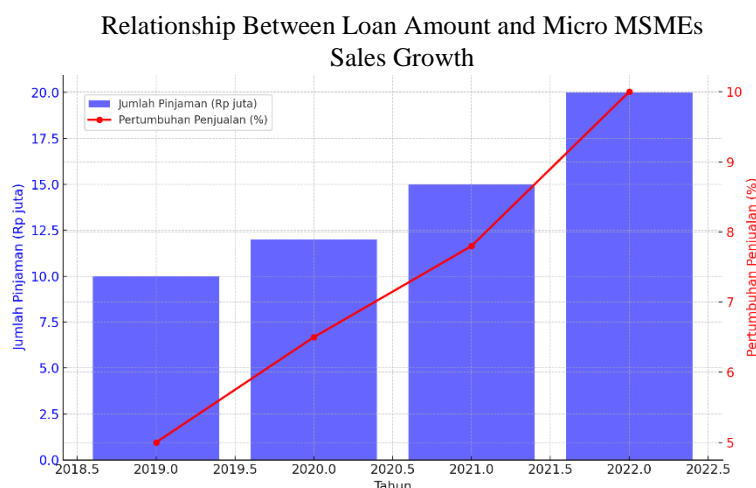
The coefficient of determination ( ) value is 0.68, indicating that 68% of the variability in sales growth can be explained by the amount of loans.

The findings obtained in this study support the results of previous research conducted by Tambunan (2019), which stated that access to credit has a significant effect on MSME sales growth. This shows that adequate financing can open up opportunities for MSMEs to expand their production capacity and markets, as well as increase business competitiveness. However, although these findings support this conclusion, there are significant differences in terms of interest rates, indicating that other factors, such as macroeconomic conditions and market stability during the study period, may have a greater influence in determining the impact of interest rates on MSME performance.

The differences in the results of this study indicate the importance of considering external factors, such as inflation rates, exchange rate fluctuations, and government monetary policy, which can affect the cost of borrowing for MSMEs. Better macroeconomic stability can lower interest rates, thereby providing greater opportunities for MSMEs to access financing at lower costs. Thus, policies that focus on reducing credit barriers, such as simplifying the loan process, reducing interest rates, and increasing access to financial institutions, are expected to further encourage the growth of micro MSME sales in various economic sectors.

The implications of these findings also highlight the need for more attention to the financial education aspect for micro MSMEs. Although access to financing is an important factor, wise use of loans also greatly determines the success of a business. Therefore, in addition to providing easy access to credit, it is also important to provide training and assistance for micro MSMEs, especially in terms of financial management and productive use of loans. With adequate financial education, micro MSMEs will be better able to manage and utilize the funds obtained more effectively, which will ultimately support the sustainability and growth of their businesses.

This holistic approach can strengthen the micro MSME sector, where more inclusive financing policies and appropriate education can be a catalyst to increase their competitiveness, both in local and international markets. In addition, this will also strengthen the foundation of the micro economy, reduce dependence on larger sectors, and increase economic equality across all levels of society. Therefore, it is important for the government and financial institutions to collaborate in creating an ecosystem that supports the progress of micro MSMEs in a sustainable manner.



**Figure 1:** Relationship between Loan Amount and Micro MSME Sales Growth

## 5. Conclusion

Based on the results of the research that has been conducted, it can be concluded that:

- 1) **Loan Amount:** The amount of loan received by micro MSMEs has been shown to have a positive and significant impact on their sales growth. This means that the larger the loan given, the greater the potential increase in sales of products or services offered by micro MSMEs. This shows that access to adequate financing is very important to encourage business development and expand the market for micro MSMEs.
- 2) **Interest Rate:** On the other hand, the results of the study show that interest rates do not have a significant effect on the sales growth of micro MSMEs. This can be interpreted that other factors, such as good financial management or conducive market conditions, may play a greater role in influencing sales growth than the amount of loan interest rates. Therefore, micro MSMEs should focus on more efficient financial management and adaptation to market changes.
- 3) **Financing Policy:** The study also underlines the importance of more inclusive and affordable financing policies to support the growth of micro-SMEs. Policies that prioritize easy access to financing, as well as lowering cost barriers associated with loans, can open up opportunities for micro-SMEs to grow and compete in a wider market.

Policy recommendations that can be taken to strengthen the micro MSME sector are as follows:

- **Improving Access to Finance:** Improving access for micro MSMEs to formal financing through credit programs with low interest rates and more flexible requirements. This can help micro MSMEs to obtain the necessary capital without being burdened by high interest costs, so they can focus on developing their businesses.
- **Collaboration between Government, Banks, and Financial Institutions:** Encourage closer collaboration between the government, banks, and other financial institutions to create a more inclusive funding ecosystem. This collaboration can ensure that available funds can reach micro MSMEs in need, as well as create a more transparent and accessible financing system.
- **Financial Training and Mentoring:** Providing training and mentoring to micro MSMEs on good and effective financial management. This training aims to improve the ability of MSMEs to use the loans received wisely, so that they can manage their businesses more professionally and productively, and ensure that the loans actually have an impact on increasing sales growth.

By implementing these policies, it is hoped that the micro MSME sector can develop more rapidly and contribute more to the economy, create jobs, and reduce poverty at the micro level.

### Thank-you note

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