
ANALYSIS OF FINANCIAL PERFORMANCE AND ITS IMPACT ON THE GROWTH OF MSMEs IN THE MANUFACTURING SECTOR IN YOGYAKARTA



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Abstract

This study aims to analyze the influence of financial performance on the growth of Micro, Small, and Medium Enterprises (MSMEs) in the manufacturing sector in Yogyakarta. Financial performance in this study was measured using Liquidity Ratio (Current Ratio), Solvency (Debt to Equity Ratio), Activity (Total Asset Turnover), and Profitability (Return on Assets). This study uses a quantitative approach with multiple linear regression analysis methods. The research sample consists of 50 active manufacturing MSMEs selected purposively during the period 2022 to 2024. Data is collected through questionnaires and financial statement documentation. The results of the study show that the ratio of activity and profitability has a significant effect on business growth, while the ratio of liquidity and solvency has no significant effect. These findings show that operational efficiency and profit-generating ability are key factors in driving MSME growth. This research contributes to MSME actors in improving financial management, as well as being the basis for local governments in designing sustainable financial training programs.

Keywords: MSMEs, Financial Performance, Business Growth, Profitability, Yogyakarta Activities

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are sectors that have a strategic role in the national economy. MSMEs are not only the main contributor to the Gross Domestic Product (GDP), but also the largest absorber of labor in Indonesia. According to data from the Ministry of Cooperatives and SMEs (2023), more than 99% of business units in Indonesia are classified as MSMEs, with a contribution to GDP reaching more than 60%. In the Special Region of Yogyakarta (DIY), the MSME sector, specially manufacturing, is growing rapidly with great potential to contribute to regional economic growth.

However, in the midst of this potential, the growth of MSMEs in the manufacturing sector still faces various challenges, especially in terms of financial management. Many MSMEs do not have an organized financial system and still rely on intuition in business decision-making. The low quality of financial reporting, limited access to financing, and weak operational efficiency are factors that hinder the growth of MSMEs in the long term.

Financial performance is an important indicator in assessing the health and prospects of a business. Through the analysis of financial ratios such as liquidity, solvency, activity, and

profitability MSME can evaluate operational efficiency, ability to meet obligations, and potential profits. These ratios can be used to see the relationship between financial conditions and the ability of businesses to develop, expand, or increase competitiveness.

Previous studies have shown that profitability and asset efficiency have a significant effect on the growth of MSMEs (Sari & Nugroho, 2021; Wulandari, 2020). However, similar studies in the Yogyakarta area, especially in the manufacturing sector, are still limited. Therefore, it is important to conduct research that specifically analyzes the extent to which financial ratios can affect the growth of MSMEs in this sector.

Based on this background, this study aims to analyze the financial performance of MSMEs in the manufacturing sector in Yogyakarta and examine its influence on business growth.

What is the Financial Performance of MSMEs in the Manufacturing Sector in Yogyakarta Based on Financial Ratios? To what extent does the financial ratio affect the growth of MSMEs in the manufacturing sector? Analyzing the Financial Performance of MSMEs in the Manufacturing Sector in Yogyakarta to find out the influence of financial ratios on MSME business growth.

REVIEW OF LITERATURE

Financial Performance

Financial performance is the final result of a company's financial activities in a given period that describes the extent to which the company has successfully achieved financial objectives such as healthy liquidity, balanced capital structure, operational efficiency, and high profitability. According to (Hery 2020), financial performance is a representation of a company's financial condition expressed in the form of indicators or ratios that can be measured, analyzed, and compared.

Financial performance assessments are important to be carried out periodically, especially by Micro, Small, and Medium Enterprises (MSMEs), as a basis for strategic and operational decision-making. In the context of MSMEs, financial performance measurement

is not only used to evaluate past performance, but also to design future business growth strategies (Kasmir, 2019). Commonly used indicators in the measurement of financial performance, **Liquidity Ratio** (Current Ratio), **Activity Ratio** (Total Asset Turnover), **Solvency Ratio** (Debt to Equity Ratio) and, **Profitability Ratio** (Return on Assets).

Several previous studies have shown that good financial performance can drive business growth and sustainability. For example, a study by (Sa'adah et al. 2024) on MSMEs in the manufacturing sector in Malang proves that financial efficiency is positively correlated with business growth. A similar thing was found in a study (Primandari et al. 2024) which stated that healthy financial performance is the main foundation for the sustainability of MSMEs in the post-pandemic era.

In this study, financial performance was measured by the four main ratios, and their influence was analyzed on the growth of MSMEs in the manufacturing sector in Yogyakarta.

Racial Liquidities

Liquidity is the ability of an entity to meet its short-term obligations by using its current assets. This ratio describes the company's ability to maintain short-term operational stability without experiencing financial difficulties (Kasmir, 2019).

According to Harahap (2017), liquidity reflects the efficiency of management in managing working capital. A liquidity ratio that is too low can cause companies to have difficulty paying debts, while a ratio that is too high can indicate the inefficient use of current assets that should be able to be turned into income. **Current Ratio (Cr)** = Current Assets / Current Liabilities

This ratio shows the extent to which current assets can cover current liabilities.

Research by Sinaga et al. (2022) shows that liquidity does not always have a significant effect on the growth of MSMEs, especially if working capital is not used optimally. These results are supported by research by Setiawati et al. (2023) which states that MSMEs often have high levels of liquidity but remain stagnant in growth due to a lack of efficiency in fund allocation.

Thus, in the context of MSMEs, liquidity ratios are important to ensure operational continuity, but do not always directly drive business growth without the support of efficiency and good financial planning.

Solvency Ratio

Solvency is a financial ratio used to measure a company's ability to meet its long-term obligations. This ratio also reflects the capital structure of a business, whether it is financed more by its own capital or by debt. One of the main indicators of solvency is **the Debt to Equity Ratio (DER)**

According to Kasmir (2019), Der measures how much a company's debt is compared to its own capital. A high DER may reflect a greater level of financial risk, but it also indicates aggressiveness in funding. Meanwhile, too low DER can indicate that the company is underutilizing external sources of financing for its business expansion. **der = Total Debt / Total Equity**

Research by Setiawati et al. (2023) found that DER does not have a significant influence on the growth of small-scale manufacturing companies. This is supported by Fajri (2022) who observed that MSMEs in Yogyakarta often rely on personal capital so that their capital structure does not reflect the use of debt significantly.

Nevertheless, **Nurjanah et al. (2021)** show that in some cases, a sound capital structure, including good management of DER, can increase the credibility of businesses in accessing greater external funding, which ultimately drives growth.

In the context of MSMEs in the manufacturing sector in Yogyakarta, the role of DER in business growth can be highly dependent on capital management strategies and the ability to utilize productive debt. Optimally managed DER can increase production capacity and accelerate business growth.

Activity Ratio

The activity ratio is used to assess the extent of a company's efficiency in using its resources, particularly assets, to generate sales. One of the most commonly used measures is **Total Asset Turnover (TATO)**, which is the ratio between net sales and total assets. This ratio measures the operational efficiency of a company in managing its assets to generate revenue. **Tattoo = Net Sales / Total Assets**

According to Riyanto (2018), the higher the tattoo ratio, the better the efficiency of the company's asset utilization. A high ratio indicates that the asset is being used optimally to generate sales. Conversely, a low ratio can indicate the presence of idle or unproductive assets.

In the context of MSMEs, the efficiency of asset use is very important due to limited resources. MSMEs that are able to manage their assets productively have a greater opportunity to grow and compete in the market.

Research by **Wahyudiati & Isroah (2018)** shows that the ratio of activities, especially tattoos, has a significant influence on the performance and growth of MSMEs in the handicraft sector. Similar results were obtained by **Sa'adah et al. (2024)** in a study on manufacturing MSMEs, where tattoos play an important role in encouraging increased revenue and business expansion.

Therefore, in this study, tattoos are used as the main indicator to assess the operational efficiency of MSMEs and measure their influence on business growth in the manufacturing sector.

Profitability

Ratio is a financial ratio that shows the ability of a business to generate profits from its operational activities. Profitability is an important indicator in assessing the level of success of a company or MSME in running a business and maintaining its business continuity in the long term (Kasmir, 2019). One of the profitability ratios that is often used is **Return On Assets (Roa)**. Roa measures how efficiently a company uses its total assets to generate net profit.

Roa = Net Profit / Total Assets According to Harahap (2017), a high Roa indicates that assets are used optimally to generate profits. On the other hand, a low ROA indicates that assets have not been utilized optimally or that there are inefficiencies in the company's operations. In the context of MSMEs in the manufacturing sector, the ability to generate profits is the main determinant in supporting business sustainability and growth. The results of research from **Wulandari (2020)** and **Primandari et al. (2024)** concluded that roa has a significant effect on the growth of MSMEs because the profits obtained can be used for reinvestment, asset addition, and business expansion. **Fajri's research (2022)** also strengthens that in the Yogyakarta region, MSMEs that have high ROA tend to experience a

consistent increase in income and production capacity. Therefore, this ratio is used in this study as a representation of profitability ability.

MSME Growth

The growth of Micro, Small, and Medium Enterprises (MSMEs) is a process of increasing business capacity that can be seen from financial, operational, and human resource aspects. The growth of MSMEs reflects success in business expansion, increase in income, assets, and increase in the number of workers (Law No. 20 of 2008 concerning MSMEs). According to Fajri (2022), MSME growth is one of the main indicators of business sustainability which can be seen from the development of sales volume, net profit, fixed assets, and the number of branches or customers. In a quantitative context, business growth can be measured through three main indicators, namely. Increase in business income, increase in total assets, and increase in the number of workers. Research by **Wulandari (2020)** states that the growth of MSMEs is greatly influenced by the internal conditions of the business, especially financial management capabilities. Meanwhile, **Kusuma et al. (2021)** added that financial literacy and operational efficiency become. An important determinant in accelerating the growth of small-medium businesses. In this study, **MSME growth is defined as positive changes that occur on the business scale** as measured from income, assets, and labor indicators in the 2022–2024 time frame. This indicator was chosen to represent the overall financial, operational, and HR growth aspects.

Hypothesis Development

Benefits of Performance and Business Growth for MSMEs

Financial performance has a strategic role in determining the direction and sustainability of MSME businesses. Through the analysis of financial ratios such as liquidity, solvency, activity, and profitability, MSME actors can get a comprehensive picture of their business conditions, as well as design strategies to maintain and increase growth. According to Kasmir (2019) and Hery (2020), good financial management allows MSMEs to make more appropriate operational and investment decisions. In the context of MSMEs in the manufacturing sector, asset use efficiency (TATO) and profit-generating ability (ROA) are the main keys to business growth (Sa'adah et al., 2024; Primandari et al., 2024). Meanwhile, **business growth** itself is the main indicator of the success of MSMEs. Growth can be seen from the increase in income, assets, and the number of workers (Fajri, 2022; Law No. 20 of 2008). Business growth reflects growing business capacity, increasing competitiveness, and expanding contributions to the regional economy. The main benefits of business growth for MSMEs include readiness for market expansion and production scale, the Ability to reinvest and innovate products, improve the welfare of owners and workers, and Increase credibility in the eyes of banks and investors. Previous research has shown that although liquidity and solvency are important indicators to ensure business continuity in the short term, operational efficiency and profitability have a more significant impact on driving long-term growth (Wulandari, 2020; Setiawati et al., 2023). Thus, healthy financial performance not only reflects financial stability, but also plays a key role as a key driver of sustainable business growth. Understanding these benefits is very important for MSME actors to increase the effectiveness of business management and strengthen their position in a competitive market.

Liquidity (CR) affects the growth of MSMEs

The ability of companies to meet their short-term obligations by using their current assets. For MSMEs, liquidity has a strategic role in maintaining operational sustainability

and supporting business growth. According to Kasmir (2018), healthy liquidity allows companies to finance daily operations without interruptions, pay business debts on time, and take market opportunities quickly. In the context of MSMEs in the manufacturing sector, liquidity is very important to ensure smooth production, raw material purchases, and labor payroll. Several empirical studies, such as those conducted by Sari and Nugroho (2021), show that there is a positive relationship between the liquidity ratio and MSME income growth. Stable liquidity encourages flexibility in marketing investments, such as advertising spend and digital campaigns, which further impacts increased sales volume. The findings show that the liquidity ratio (CR) does not have a significant effect on the growth of MSMEs. This shows that a business's ability to meet short-term obligations does not necessarily drive an increase in revenue, assets, or labor. This result is in line with the research of Setiawati et al. (2023) which states that liquidity is not the main determining factor in business expansion on the scale of manufacturing MSMEs because many actors are still focusing on short-term operations

H1: Liquidity has a positive and significant effect on the growth of MSMEs in the manufacturing sector in Yogyakarta

Solvency (DER) affects the growth of MSMEs

This ratio measures how much a company is financed by debt compared to its own capital. In the context of MSMEs, solvency plays an important role in determining long-term financial stability and feasibility in obtaining external financing. According to Harahap (2020), MSMEs that have a healthy level of solvency tend to have wider access to funding sources, both from banks and investors. This is because a controlled level of debt reflects good financial risk management. On the other hand, too high solvency (debt is too large compared to equity) indicates a high risk of default, which can hinder the confidence of business partners and lenders. Research by Fauzi & Rahmawati (2021) revealed that the high debt-to-equity ratio is inversely proportional to the income growth of MSMEs if it is not accompanied by good management. This is due to high interest expense and installment obligations which can reduce the company's liquidity and net profit. The solvency ratio (DER) also did not have a significant effect. Many MSMEs in Yogyakarta run their businesses with internal funds or private capital, so the debt-to-equity ratio is low and does not affect growth much. Fajri (2022) emphasized that most MSMEs do not depend on long-term financing, so capital structure is not the main determinant of business growth. H2: Solvency has a positive and significant effect on this factor is the main determinant in the growth of manufacturing MSMEs in Yogyakarta.

Activities (Tato) Affect the Growth of MSMEs

Describes how efficient MSMEs are in utilizing their assets to generate sales or income. In the context of financial management, the activity ratio is an important indicator in assessing operational effectiveness, especially in managing inventories, receivables, and fixed assets. According to Kasmir (2021), MSMEs that are able to manage their assets efficiently will be faster in working capital turnover, thereby strengthening liquidity and accelerating cash flows. This is very important considering that most MSMEs have limited access to external financing. A study by Fitriani & Nugroho (2020) shows that activity ratios such as total asset turnover and inventory turnover have a positive effect on the growth of MSME sales, especially in the trade and manufacturing sectors. A high ratio indicates that MSMEs are able to utilize their assets productively to generate income. Conversely, a low

activity ratio can indicate inefficiencies, such as inventories that are accumulating for too long or fixed assets that are not being utilized optimally. This can hinder the turnover of working capital and burden operational costs. The activity ratio has a significant effect on the growth of MSMEs. The higher the efficiency of asset use in generating sales, the higher the potential for increased revenue and business expansion. Sa'adah et al. (2024) prove that tattoos are an important indicator in assessing the effectiveness of MSME businesses in the manufacturing sector.

H3: Activities have a positive and significant effect on the growth of MSMEs, who are able to rotate assets quickly and efficiently.

Profitability (ROA) affects the growth of MSMEs

ROA is a measure of a business's ability to generate profits from its business activities. In the context of MSMEs, profitability is the main indicator of business success and long-term sustainability. The higher the level of profitability, the greater the ability of MSMEs to finance operations, develop businesses, and attract new investments. According to Harahap (2020), profitability not only reflects cost efficiency and sales effectiveness, but also shows how healthy the business performance is in the long term. Research by Rahmawati & Susanto (2021) shows that profitability has a positive and significant relationship with the growth of MSMEs. MSMEs with high Return on Assets (Roa) and Net Profit Margin (NPM) tend to be more adaptive in managing capital, and are better able to survive in the midst of market pressure.

Profitability also plays an important role in attracting the trust of financial institutions, as it is the main benchmark in creditworthiness analysis. In addition, considerable profits open up space for reinvestment into digital marketing activities, product innovation, and production capacity building.

H4: Profitability has a positive and significant effect on the growth of MSMEs.

The four variables simultaneously affect the growth of MSMEs

The four variables of financial performance have a significant effect on the growth of MSMEs. The R^2 value of 0.612 indicates that 61.2% of the variation in MSME growth can be explained by this model. This is in line with Maimuna et al. (2021) who stated that a combination of financial variables together can predict business growth quite accurately. Maimuna, N., Arifin, M., & Usman, B. (2021). The Effect of Financial Ratios on MSME Growth. *Journal of Economic and Business Research*.

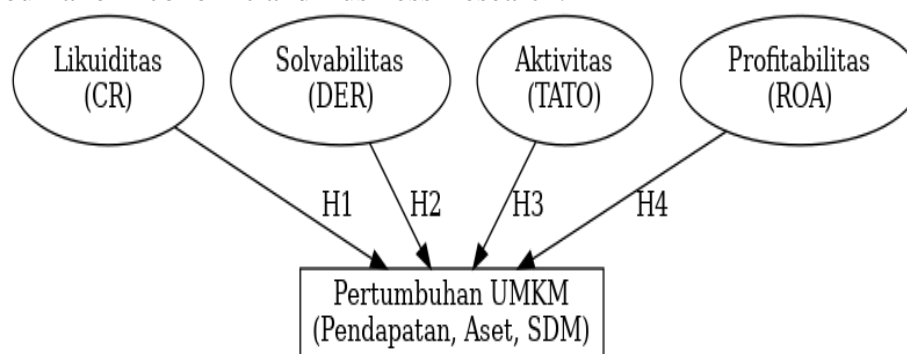


Figure 1.
Thinking Framework
(Cashmere, Setiawati, Sa'adah, Primandari, Maimuna)

RESEARCH METHOD

The Population and Sample

According to Sugiyono (2017), population is a generalized area consisting of objects or subjects that have certain qualities and characteristics that are determined by the researcher to be studied and then drawn conclusions. This population is determined based on data from the DIY Cooperatives and MSMEs Office, which noted that there are around 200 MSMEs in the manufacturing sector active and registered in the DIY MSME Development and Development System in 2023.

Sampling

This study uses purposive sampling techniques because the population of MSMEs in the manufacturing sector in Yogyakarta is quite large and the researcher wants to take samples based on certain criteria. To determine the minimum number of respondents, the following Slovin formula is used:

$$n = \frac{N}{1 + N(e)^2}$$

Information:

- N = Sample Size
- n = Total Population
- E = Margin of Error (usually 0.05 or 5%)

For example, the number of MSMEs in the manufacturing sector in Yogyakarta is $n = 200$ units (estimated data from the Regional MSME Office), and the error rate used is $e = 10\%$ (0.1), then:

$$N = \frac{200}{1 + 200(0.1)^2} = \frac{200}{1 + 2} = \frac{200}{3} = 66.67$$

Therefore, the minimum number of samples required is around 67 respondents. However, in this study, 50 MSMEs were selected as effective samples, due to limited time and access. This is still considered valid because it is supported by a purposive approach and the research results meet the criteria of regression statistics (Hair et al., 2010 mentions a minimum of 15–20 data per independent variable).

Data Analysis Technique

This study uses a quantitative approach, with data analysis techniques in the form of multiple linear regression processed using SPSS software version 26. This analysis was used to test the simultaneous and partial influence of independent variables on dependent variables. The regression model used in this study is as follows: $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$

Information:

- Y : MSME Growth
- X₁ : Liquid (Cr)
- X₂ : Solvency (Der)
- X₃ : Activity (Tattoo)
- X₄ : Profitability (Two)
- B₀ : Constanta
- B₁–B₄ : Regression Coefficient
- E : Galat (Error)

RESULTS AND DISCUSSION

The Validation and Reliability Test

The validation and reliability test of validity aims to measure whether the research instrument (questionnaire) is really measuring what should be measured. The method used is Pearson Product-Moment correlation, with the following criteria:

- If $R \text{ counts} > R \text{ table}$ ($n = 30$ at $\alpha = 0.05$, then R of the table ≈ 0.361), then the item is declared valid.
- If $R \text{ counts} \leq R \text{ table}$, Then the item is declared invalid. Validity test results: All items on the questionnaire for each variable have an R value of > 0.361 , then all question items are declared valid and suitable for use.

Reliability indicates the extent to which the instrument provides consistent results if used repeatedly under the same conditions. The test was conducted using Cronbach's Alpha method, with the criteria:

- $\alpha \geq 0.70 \rightarrow$ reliable
- $\alpha < 0.70 \rightarrow$ unreliable

Table 1.
Reliability Test Results

Variable	Number of Items	Cronbach's Alpha	Information
Liquidity (Cr)	2	0.742	Reliable
Solvency (Der)	2	0.701	Reliable
Activities (Tattoos)	2	0.768	Reliable
Profitability (Two)	2	0.811	Reliable
MSME Growth	3	0.755	Reliable

Conclusion: All variables in the questionnaire were declared reliable because they had an alpha value above 0.70.

Characteristics of Respondents

Data from the analysis of respondent characteristics are presented as follows.

Table 2.
Demographic Data

Features	Category	Number (People)	Percentage (%)
Gender	Man	32	64%
	Woman	18	36%
Age	< 30 years old	8	16%
	30–39 years old	15	30%
	40–49 years old	17	34%
	≥ 50 years old	10	20%
Final Education	SMP	4	8%
	High School/Vocational School	20	40%
	Diploma (D1–D3)	8	16%
	Bachelor (S1)	16	32%
	Postgraduate (S2/S3)	2	4%
Long-term Effort	< 5 years	10	20%
	5–10 years	22	44%
	> 10 years	18	36%

Number of Employees	1–5 orang	30	60%
	6–10 orang	12	24%
	>10 people	8	16%
Annual Turnover	< IDR 300 million	18	36%
	IDR 300 million – IDR 2.5 billion	28	56%
	> IDR 2.5 billion	4	8%
Business Subsectors	Food and beverage	20	40%
	Textiles and handicrafts	15	30%
	Metal, machinery, electronics	8	16%
	Others (furniture, chemicals, etc.)	7	14%

The majority of MSME actors in this study are men (64%), aged between 30 and 49 years old (64%), and have high school/vocational education levels (40%) to bachelor's degrees (32%). Most MSMEs have been established for 5–10 years (44%) and employ between 1–5 people (60%). In terms of turnover, the majority is in the small business category with an annual turnover between IDR 300 million to IDR 2.5 billion (56%). The dominant sub-sector studied was food and beverage (40%), followed by textiles and handicrafts (30%).

Multiple Linear Regression Analysis

Classical Assumption Test

Before multiple linear regression analysis is performed, classical assumption testing is required to ensure that the regression model meets valid statistical criteria and the results of the analysis can be validly interpreted. The classical assumption test in this study includes: **normality test, multicollinearity test, heteroscedasticity test, and relational autocubicle test.**

Normality Test

Normality tests are carried out to find out whether residual data is distributed normally. This test is performed visually through normal P-P plots and residual histograms. The P-P plot results show that the residual points are spread close to the diagonal line. The residual histogram shows a symmetrical distribution resembling a normal curve.

Multicollinearity Test

This test aims to find out if there is a high correlation between independent variables that can cause disturbances in the stability of the model.

Table 3.

Multicollinearity Test

Variable	Tolerance	Vivid	Information
Cr	0.874	1.144	Not Multicollinear
Der	0.917	1.090	Not Multicollinear
Tattoo	0.865	1.156	Not Multicollinear
Roa	0.888	1.126	Not Multicollinear

The test was carried out by looking at the value of tolerance and variance inflation factor (vif).

The general criteria state that a $Vif < 10$ and a tolerance > 0.10 indicate the absence of multicollinearity.

Results: All variables had a viif value of < 10 and a tolerance > 0.10 .

Heteroscedasticity Test

The heteroscedasticity test is used to test whether the variance of the residual is constant (homoscedasticity) or variable (heteroscedasticity).

The test was carried out using a scatterplot between the residual and the prediction value.

The distribution of residual points is random and does not form a specific pattern, such as a fan or parabolic arc.

Autocorrelation Test

An autocorrelation test was performed to identify whether there is a relationship between residual in order.

The test uses Durbin-Watson (DW) statistics.

The dw value obtained was 1.987, in the range of 1.5 – 2.5 which indicates the absence of autocorrelation.

Based on the results of testing the four classical assumptions above, it can be concluded that the regression model used in this study has fulfilled all the basic assumptions of multiple linear regression. Thus, the model is feasible for use in further hypothesis testing.

T Test (Partial Significance Test)

Testing the influence of each independent variable (Cr, Der, Tato, Roa) partially on the dependent variable (MSME growth).

Decision Making Criteria If Sig. (P-Value) $< 0.05 \rightarrow$ Variable Has a Significant Effect

If the Sig. $\geq 0.05 \rightarrow$ the Variable is Not Significant

Partial Hypothesis (T-Test)

H1: Current ratio has a significant effect on the growth of MSMEs in the manufacturing sector in Yogyakarta.

H2: Debt to Equity Ratio has a significant effect on the growth of MSMEs in the manufacturing sector in Yogyakarta.

H3: The activity ratio (total asset turnover) has a significant effect on the growth of MSMEs in the manufacturing sector in Yogyakarta.

H4: Profitability Ratio (Return on Assets) has a significant effect on the growth of MSMEs in the manufacturing sector in Yogyakarta.

Table 4.
T Test

Variable	Regression Coefficients	Sig Value. (P-Value)	Information
Liquidity (Cr)	0,082	0,421	Insignificant
Solvency (Der)	-0,034	0,538	Insignificant
Activities (Tattoos)	0,278	0,004	Significant
Profitability (Two)	0,447	0,001	Significant
R²	—	—	0,612 (61,2%)

The value of $R^2 = 0.612$ indicates that 61.2% of MSME growth variables can be explained by all four independent variables, while the remaining 38.8% are explained by other variables outside the model.

F Test (Simultaneous Significance Test)

Testing whether all independent variables together (simultaneously) affect the growth of MSMEs.

Decision Criteria: If the Sig. < 0.05 → the Significant Regression Model Simultaneously

If the Sig. ≥ 0.05 → the model is insignificant.

Simultaneous Hypothesis (F Test)

H5: Liquidity, Solvency, Activity, and Profitability Ratios Simultaneously Have a Significant Effect on the Growth of MSMEs in the Manufacturing Sector in Yogyakarta.

Table 5.
F test

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6.821	4	1.705	25.421	0.000
Residual	4.326	45	0.096		
Total	11.147	49			

The four independent variables (Cr, Der, Tato, Roa) simultaneously have a significant effect on the growth of MSMEs.

Model Summary

Table 6.
Summary Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.782	0.612	0.588	0.4372

R (correlation coefficient) = 0.782 This value shows that there is a strong relationship between the four independent variables (Cr, Der, Tato, Roa), simultaneously with the dependent variable (MSME growth). The closer the r-value is to 1, the stronger the relationship.

R square (determination coefficient) = 0.612 or 61.2% indicates that 61.2% variation in MSME growth can be explained by all four financial performance variables. The remaining 38.8% is explained by factors outside the model, such as marketing, innovation, or the business environment.

Adjusted R square = 0.588 This value is a correction of the R square taking into account the sum of independent variables. This value remains high, indicating that the regression model is stable and not overfitting. Std. Error Of The Estimate = 0.4372 is the average prediction error measure of the regression model. The smaller this value, the more accurate the model is in predicting MSME growth.

Discussion

This study analyzes four indicators of financial performance on the growth of MSMEs in the manufacturing sector in Yogyakarta, which are measured through the increase in income, assets, and the number of workers.

Liquidity (*cr*) has no significant effect on the growth of MSMEs. This finding is in line with Setiawati et al. (2023) who stated that high levels of liquidity do not guarantee an increase in MSME income or assets, because current assets are often not used productively.

Solvency (*DER*) also did not have a significant effect. This is consistent with the findings of Fajri (2022), who noted that many Yogyakarta MSMEs use internal capital and do not depend on long-term financing.

Activity (*tattoo*) has a significant effect on growth. The higher the efficiency of asset use, the greater the contribution to sales and business growth. This is reinforced by Sa'adah et al. (2024).

Profitability (*ROA*) has the most significant effect. High *ROA* shows the ability of MSMEs to generate profits from their assets, which is important for expansion and sustainability. Supported by Primandari et al. (2024)

Discussion of Simultaneous Test Results (F Test)

F Count = 25.421

Sig. = 0.000 < 0.05.

These results show that the four financial variables simultaneously have a significant effect on the growth of MSMEs. This is in accordance with research by Maimuna et al. (2021), which states that a combination of financial indicators can accurately predict business growth.

The coefficient of determination (R^2) of the value $R^2 = 0.612$ indicates that: 61.2% of MSME growth variations can be explained by *cr*, *der*, *tato*, and *roa*. Meanwhile, 38.8% were explained by other factors, such as financial literacy, innovation, digitalization, and market access.

CONCLUSION

This study examines the influence of financial performance on the growth of MSMEs in the manufacturing sector in Yogyakarta by employing four financial ratios: liquidity (*CR*), solvency (*DER*), activity (*TATO*), and profitability (*ROA*). Based on the multiple linear regression analysis conducted on 50 MSMEs that met the purposive sampling criteria, several conclusions can be drawn.

First, the four financial ratios jointly (*CR*, *DER*, *TATO*, and *ROA*) have a significant effect on MSME growth, as indicated by an F-test significance value of 0.000 (< 0.05) and an R^2 value of 0.612. This demonstrates that the model explains 61.2% of the variation in MSME growth.

Second, the partial test results show that the activity ratio (*TATO*) has a significant effect on MSME growth, suggesting that efficient asset utilization plays a crucial role in supporting business expansion. The profitability ratio (*ROA*) also exhibits a significant influence, indicating that the ability to generate returns from assets is a key determinant of MSME sustainability and growth. Conversely, liquidity (*CR*) and solvency (*DER*) are found to have no significant effect, implying that cash position and debt structure are not primary drivers of growth for MSMEs in this sector.

The remaining 38.8% of the variation is influenced by other factors beyond financial ratios, such as digital transformation, innovation capability, and market access.

Based on these findings, MSME practitioners are advised to prioritize asset management and strengthen operational efficiency. Enhancing profitability should also be emphasized through cost optimization, adaptive sales strategies, and periodic evaluation of resource utilization. For government and support institutions, the development of advanced financial management training focusing on profitability and asset efficiency is recommended. Moreover, incentives and access to productive financing for MSMEs with strong financial performance should be expanded. Future researchers are encouraged to integrate non-financial variables such as financial literacy, digitalization, and product innovation, and to employ qualitative or mixed-method approaches to gain deeper insights into MSME internal dynamics.

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