

The Influence of Financial Strategy, Operational Efficiency, and Financial Literacy on The Competitiveness of SMEs in Batu City

Maria Anita Adung^{1*}, Retno Ayu Dewi Novitawati², and Cakti Indra Gunawan³

*Correspondence Author: anitaadung02@gmail.com

^{1,2,3} Management, Faculty of Economics, University of Tribhuwana Tungadewi, Malang, Indonesia

INDEXING	ABSTRACT
<p>Keywords: Keyword 1; Financial Strategy Keyword 2; Operational Efficiency Keyword 3; Financial Literacy Keyword 4; Competitiveness Keyword 5; SMEs</p>	<p>MSMEs are a crucial sector in the regional economy, absorbing labor and driving economic growth. In Batu City, MSMEs are growing rapidly, particularly in the food and beverage, crafts, and agro-tourism sectors. However, facing increasingly fierce competition, MSMEs are required to possess the skills to manage their businesses effectively and efficiently. This study aims to examine the influence of financial strategy, operational efficiency, and financial literacy on the competitiveness of Small and Medium Enterprises (SMEs) in Batu City. SMEs play a crucial role in the regional economy. However, in the face of increasingly intense business competition, effective financial strategy management, operational efficiency, and a strong level of financial literacy are essential to enhance business competitiveness. This study applies a quantitative approach with a causal associative research design, aiming to examine the cause-and-effect relationships between variables. The population in this study consists of 365 registered and active SMEs in Batu City. From this population, a sample of 78 SMEs was determined using the Slovin formula with a 10% margin of error and a purposive sampling technique. The data used are primary data obtained through the distribution of questionnaires with a Likert scale of 1–5. The data analysis technique uses multiple linear regression with the help of the SPSS program, and t-tests, F tests, and coefficients of determination (R^2) are carried out. The results of the study indicate that financial strategy, operational efficiency, and financial literacy have a positive and significant effect on the competitiveness of SMEs, both partially and simultaneously. The significance value of each variable is less than 0.05. The F-test results show a significance value of 0.000 (<0.05), which means that all independent variables jointly influence the competitiveness of SMEs. The coefficient of determination (R^2) value of 0.167 indicates that 16.7% of the variation in SME competitiveness can be explained by the variables of financial strategy, operational efficiency, and financial literacy, while the remainder is influenced by other factors outside the research model.</p>

Article History

Received: 19 March 2026; Revised: 10 April 2026; Accepted: 13 April 2026

Publish: 15 April 2026

INTRODUCTION

Several previous studies related to the competitiveness of Small and Medium Enterprises (SMEs) have been conducted by researchers. The research conducted by Bishev and Boskov (2016), El Chaarani *et al* (2020), Khattak and Shah (2020), Wulandari (2022), Rubio-Andrés *et al* (2024) showed that financial strategies have a positive impact on improving business performance and can increase the competitiveness of SMEs in facing business competition. A sound financial management strategy can help business owners regulate capital use, control operational costs, and improve the effectiveness of business financial management.

In addition, research conducted by Lestari (2023), Yakob *et al* (2021) stated that financial literacy has a significant influence on business financial management and can improve the performance and competitiveness of SMEs. Business owners with a good level of financial literacy will be better able to make appropriate financial decisions, enabling their businesses to grow sustainably. Further research by Salamah (2023) showed that appropriate financial management strategies can improve a business's ability to face market competition. Isibor *et al* (2020) also stated that effective financial management can improve business performance and strengthen the competitiveness of SMEs. Kumar et al. (2025) found that operational efficiency has an important role in increasing business productivity and creating competitive advantages for business actors.

Other research by Ali and Anwar (2021) showed that good business management strategies can significantly increase the competitiveness of SMEs. Usama and Yussof (2019) stated that financial literacy has a positive effect on improving business performance. Lumanauw and Lolowang (2024) also found that the level of understanding of business actors regarding financial management can influence the long-term sustainability of the business. In addition, the research from Evinita *et al* (2025) also showed that financial management and operational efficiency have an important role in increasing the competitiveness of SMEs.

Based on several previous studies, it can be concluded that financial strategy, operational efficiency, and financial literacy are important factors that can influence the competitiveness of SMEs. Therefore, this study aims to analyze the influence of financial strategy, operational efficiency, and financial literacy on the competitiveness of SMEs in Batu City.

LITERATURE REVIEW

1. A financial strategy is a comprehensive plan that outlines how an organization or individual will manage its financial resources to achieve short-term and long-term financial goals (Muslim *et al*, 2023). This strategy includes planning, budgeting, resource allocation, investment, and risk management to maximize value, ensure sustainability, and drive growth.
2. Financial strategy is a set of policies and actions taken by a company to manage financial resources to achieve short-term and long-term goals. According to Horne and Mutambara (2024). Operational efficiency is an organization's ability to utilize its resources (labor, materials, time, and capital) to produce optimal output (Johnson and Lee, 2012). Meanwhile, Osazefua (2019) state that operational efficiency is a production process capable of minimizing inputs to produce the desired output.
3. Financial literacy refers to the knowledge, skills, and beliefs that shape attitudes and behaviors in managing finances, thereby improving the quality of decision-making and achieving prosperity (Kyeyuna and Ntayi, 2025).
4. Competitiveness is the ability of a business to maintain and improve its position in the market through the creation of growing value and competitive advantage (Matarazzo *et al*, 2021). According to Anwar and Shah (2021), the competitiveness of SMEs is determined by the efficiency of product quality and the ability to manage finances.

RESEARCH METHOD

1. Research location

The research location is the place where the researcher conducts research activities to obtain the necessary data. This research was conducted at an SME in Batu City, East Java.

2. Research time

This research was conducted over two months, from December to January. Prior to conducting the research, the researchers went through several stages, including observation, interviews, proposal submission, questionnaire distribution, and data analysis.

3. Types of research

The research used quantitative data, as it is obtained in numerical form from respondents' answers to a questionnaire. This data will be statistically analyzed to determine the influence of financial strategy, operational efficiency, and financial literacy on competitiveness.

4. Data Source Type

The types of data sources used in the research are primary data and secondary data:

a. From Primary Data

The primary data referred to in this study were obtained through distributing questionnaires to SMEs in Batu City, short interviews with SME owners to strengthen understanding of the financial strategies implemented. The questionnaire was distributed online via google form.

b. Data Seconds

Secondary data in this study were obtained through official documents from the Cooperative, Industry and Trade Department of Batu City regarding the number and profile of SMEs, and journals, books and researchers relevant to the topic of financial strategy and competitiveness of SMEs.

5. Population and Sample

a. Population

A population refers to a generalization area that includes objects or subjects with specific characteristics and qualities determined by the researcher to be studied, serving as the basis for drawing conclusions (Ahmad *et al*, 2023). Various business sectors, especially those that already have structured financial activities. Population data was obtained directly from the Cooperative Service on October 6, 2025, which showed that there were 365 SMEs registered and active in the Batu City Cooperative Service.

b. Sample

A sample is a portion of the number and characteristics of a population (Casteel and Bridier, 2021). The use of samples in research is carried out due to the limitations of researchers to examine the entire population whose numbers are relatively large, so it is necessary to take samples that are able to represent the characteristics of the population accurately. In this study, sample determination was carried out using the Slovin formula and purposive sampling techniques. The Slovin formula is used to determine the number of research samples, while the purposive sampling technique is used to determine sample units that meet the criteria according to the variables and

research objectives. The results of these calculations, the number of samples used in this study is 78 SMEs.

6. Data Collection Techniques

Data collection in this study was conducted using a survey technique, namely by giving respondents questionnaires that were directly distributed to respondents in SMEs in Batu City. The completed questionnaires were first screened to exclude incomplete questionnaires from the analysis. The researcher selected this method because direct surveys are considered more effective and help reduce the risk of unreturned questionnaires. The measurement scale used is a Likert scale ranging from 1 to 5.

7. Data analysis

In conducting data analysis, the researcher used descriptive analysis, comparing existing data with various supporting theories, analyzing and explaining them. This analysis employed formulas and interpreted clear images through collection and compilation, thus providing a general overview of the company being studied. The results of data collection through questionnaires were analyzed by analyzing the frequency distribution of respondents' answers related to several variables that influence the increase in work productivity of MSME employees in Batu City.

RESULT AND DISCUSSION

Table 1. Multiple Linear Regression Test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	9.148	2.822		3.241	.002
2	Financial Strategy	.230	.131	.202	1.757	.083
3	Operational Efficiency	.083	.046	.160	1.792	.077
4	Financial Literacy	.226	.117	.222	1.927	0.058

a. Dependent Variable: COMPETITIVENESS

Source: Primary Data Processed 2026

Table 2. Reliability Test

Variables	Cronbach's Alpha	Number of Items	Criteria	Information
X1	0.768	5	≥0,60	Reliable
X2	0.952	5	≥ 0,60	Reliable
X3	0.745	5	≥ 0,60	Reliable
AND	0.619	5	≥ 0,60	Reliable

Source: Processed Primary Data, 2026

Based on the results of the reliability test conducted using the Cronbach's Alpha method, the results showed that all variables in this study were declared reliable. A variable is said to be reliable if it has a Cronbach's Alpha value greater than 0.60. The Financial Strategy variable (X1) obtained a Cronbach's Alpha value of 0.768 with a total of 5 statement items. This value is greater than 0.60, so it can be concluded that the instrument in the Financial Strategy variable has a good level of internal consistency and is declared reliable.

The Operational Efficiency variable (X2) obtained a Cronbach's Alpha value of 0.952 with a total of 5 statement items. This value is far above the minimum limit of 0.60, indicating that the instrument in the Operational Efficiency variable has a very high level of internal consistency and is declared highly reliable. Furthermore, the Financial Literacy variable (X3) obtained a Cronbach's Alpha value of 0.745 with a total of 5 statement items. This value indicates that the instrument has good internal consistency and meets the reliability criteria. Meanwhile, the Competitiveness variable (Y) obtained a Cronbach's Alpha value of 0.619 with a total of 5 statement items. Although this value is the lowest compared to other variables, it is still greater than 0.60 so it still meets the reliability criteria and is declared reliable. Thus, it can be concluded that all variables in this study have met the reliability criteria, so that the research instrument is declared consistent and suitable for use for further analysis.

t-test (Partial)

According to Hossan *et al* (2025) stated that a test tool is used to measure the validity of a questionnaire item. An instrument is considered valid if its statements accurately explain what the questionnaire is intended to measure. To test data validity, the Pearson product-moment correlation test is used. This analysis correlates each item's score with the total score. If the calculated $r >$ the table (test 2 with a significance level of 0.05), then the instrument or question item has a significant correlation with the total score (declared valid). The T-test is conducted to determine the partial effect of each independent variable on the dependent variable. The magnitude of the effect of each independent variable on the dependent variable can be seen in the following table.

Table 3. T-test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	.731	.406		1.799	.076
2	Financial Strategy(X1)	.429	.078	.430	5.505	.000
3	Operational Efficiency (X2)	.184	.053	.188	3.504	.001
4	Financial Literacy (X3)	.395	.058	.393	6.833	.000
	a Dependent Variable	Competitiveness Y				

Source: Primary Data Processed 2026

The results of the t-test calculation to determine the influence of each variable are:

The constant value of 0.731 indicates that if the variables Financial Strategy, Operational Efficiency, and Financial Literacy are considered constant or zero, then the value of the dependent variable is 0.731. However, the constant's significance value of 0.076 is greater than 0.05, so the constant is not statistically significant.

Partially, the test results indicate that the Financial Strategy variable (X1) has a regression coefficient of 0.429, a t-value of 5.505, and a significance level of 0.000. Since the significance value is less than 0.05, it can be concluded that Financial Strategy has a positive and significant effect on the dependent variable. This means that every increase in Financial Strategy will increase the value of the dependent variable by 0.429 units.

The Operational Efficiency variable (X2) has a regression coefficient value of 0.184 with a t-value of 3.504 and a significance level of 0.001. A significance value smaller than

0.05 indicates that Operational Efficiency has a positive and significant effect on the dependent variable. This means that the better the operational efficiency, the dependent variable will increase by 0.184 units.

The Financial Literacy variable (X3) has a regression coefficient value of 0.395 with a t-value of 6.833 and a significance level of 0.000. Because the significance value is less than 0.05, Financial Literacy has a positive and significant effect on the dependent variable. This indicates that increasing financial literacy will increase the dependent variable by 0.395 units.

Thus, based on the results of the t-test, it can be concluded that partially the three independent variables, namely Financial Strategy, Operational Efficiency, and Financial Literacy, each have a positive and significant influence on the dependent variable. Among the three variables, Financial Literacy has the most dominant influence, as seen from the largest calculated t-value, followed by financial strategy and operational efficiency.

Partial Test (Simultaneous F Test)

This test is used to assess the accuracy of the sample regression function in estimating the actual value. If the F significance value is less than 0.05, the regression model is considered appropriate for predicting the dependent variable. In addition, the F statistical test is used to determine whether all independent variables included in the model simultaneously influence the dependent variable. The level of significance applied in this test is 0.05. The hypothesis testing criterion using the F statistic is that if the significance value of F is less than 0.05, the alternative hypothesis is accepted, indicating that all independent variables simultaneously and significantly affect the dependent variable.

Table 4. F Test

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	271.162	3	90.387	889.698	.000 ^a
	Residual	7.518	74	.102		
	Total	278.679	77			

a. Dependent Variable: Competitiveness(y)

b. Predictors: (Constant), Financial Literacy (x3), Operational Efficiency (x2), Financial Strategy (x1)

Source: Primary Data Processed 2026

Based on the results of the ANOVA test (F-test) in the table above, the calculated F value is 889.698 with a significance level of 0.000. Since this significance value is less than 0.05 ($0.000 < 0.05$), it can be concluded that the regression model used in this study is feasible and statistically significant. This means that the independent variables entered into the model simultaneously influence the dependent variable. Thus, the hypothesis that all independent variables simultaneously influence the dependent variable is accepted. These results indicate that the research model has a very strong ability to explain variation in the dependent variable, as evidenced by the very large calculated F-value.

CONCLUSION

Based on the results of research and discussion regarding the influence of financial strategy, operational efficiency, and financial literacy on the competitiveness of SMEs in Batu City, the following conclusions can be drawn:

1. Financial strategy has a positive and significant influence on the competitiveness of SMEs in Batu City. This shows that the better the financial planning and management carried out by SMEs, such as budgeting, cost control, working capital management, and investment planning, the greater their ability to compete in the market. The right financial strategy can maintain business stability and improve SMEs' ability to face competition.
2. Operational efficiency has a positive and significant impact on the competitiveness of SMEs in Batu City. SMEs that are able to optimally manage resources, reduce cost and time waste, and increase workforce productivity will have a greater competitive advantage. Operational efficiency helps SMEs produce maximum output at minimal cost, enabling them to offer more competitive products or services.
3. Financial literacy has a positive and significant impact on the competitiveness of SMEs in Batu City. The level of understanding of SMEs regarding financial management, credit management, savings, investments, and risk management significantly determines the quality of business decision-making. The higher the financial literacy, the better the SME's ability to manage its finances effectively and sustainably.
4. Financial strategy, operational efficiency, and financial literacy simultaneously have a positive and significant influence on the competitiveness of SMEs in Batu City..These three variables collectively contribute significantly to improving the competitiveness of SMEs. This means that to optimally enhance competitiveness, SMEs need to implement sound financial strategies, improve operational efficiency, and strengthen financial literacy in a balanced and sustainable manner. Overall, this study demonstrates that sound financial and operational management is a crucial factor in strengthening the competitiveness of SMEs amidst increasingly fierce business competition.

REFERENCES

Authored Book

Johnson, C. Y. L. A. L., & Lee, C. (2012). Operational efficiency. *The Handbook of Industrial and Systems Engineering*.

Journal Articles

Ahmad, N., Alias, F. A., & Razak, N. A. A. (2023). Understanding population and sample in research: Key concepts for valid conclusions. *Sigcs: E-Learning*, 6, 19-24.

Ali, B. J., & Anwar, G. (2021). Business strategy: The influence of Strategic Competitiveness on competitive advantage. *International Journal of Electrical, Electronics and Computers*, 6(2).

Anwar, M., & Shah, S. Z. (2021). Entrepreneurial orientation and generic competitive strategies for emerging SMEs: Financial and nonfinancial performance perspective. *Journal of Public Affairs*, 21(1), e2125.

Bishev, G., & Boskov, T. (2016). Financial impact strategy on SMEs in the business world. *International Journal of Current Research*, 8(9), 39226-39229.

Casteel, A., & Bridier, N. L. (2021). Describing populations and samples in doctoral student research. *International journal of doctoral studies*, 16(1).

- El Chaarani, H., Vrontis, P. D., El Nemar, S., & El Abiad, Z. (2022). The impact of strategic competitive innovation on the financial performance of SMEs during COVID-19 pandemic period. *Competitiveness Review: An International Business Journal*, 32(3), 282-301.
- Evinita, L. L., Tangkau, J. E. M., Pesak, P. J., & Cahyono, S. (2025). Policy framework to improve MSME competitiveness and financial performance with Indonesia's Asta Cita vision goals. *Journal of Risk and Financial Management*, 18(12), 692.
- Hossan, D., Wolfs, B., & Petkovic, M. (2025). Questionnaire validity and reliability: A review with practical guidelines. *Journal of Entrepreneurship, Business and Economics*, 13(1), 135-186.
- Isibor, N. J., Ibeh, A. I., Ewim, C. P. M., Sam-Bulya, N. J., & Martha, E. (2022). A financial control and performance management framework for SMEs: Strengthening budgeting, risk mitigation, and profitability. *International Journal of Multidisciplinary Research and Growth Evaluation*, 3(1), 761-768.
- Khattak, M. S., & Shah, S. Z. (2020). The role of intellectual and financial capital in competitiveness and performance: A study of emerging small and medium enterprises. *Business Strategy & Development*, 3(4), 422-434.
- Kumar, G., Murty, A., Savitha, G. R., Rao, S., Padhy, S., & Miyan, R. (2025). Driving Financial Success: Analyzing the Influence of Financial Management Expertise on Enhancing SME Performance. *International Review of Management and Marketing*, 15(5), 107.
- Kyeyune, G. N., & Ntayi, J. M. (2025). Empowering rural communities: the role of financial literacy and management in sustainable development. *Frontiers in Human Dynamics*, 6, 1424126.
- Lestari, E. (2023). Financial literacy and risk-management skills in SMEs. *Journal Management Research*, 8(2), 88-102.
- Lumanauw, B., & Lolowang, I. R. A. (2024). Exploring Strategic Financial Management Techniques in Entrepreneurship: A Detailed Literature Review on Practices That Drive Business Sustainability and Growth. *Atestasi: Jurnal Ilmiah Akuntansi*, 7(2), 1111-1132.
- Matarazzo, M., Penco, L., Profumo, G., & Quaglia, R. (2021). Digital transformation and customer value creation in Made in Italy SMEs: A dynamic capabilities perspective. *Journal of Business research*, 123, 642-656.
- Muslim, M., Noch, M. Y., & Sonjaya, Y. (2023). The Dynamics of Financial Strategy, Performance, and Investment Decisions. *The Journal of Business and Management Research*, 6(2), 91-102.
- Mutambara, A. (2024). Strategic financial management framework to ensure performance and growth for small to medium enterprises. *International Journal of Research in Business and Social Science*, 13(7), 28-41.
- Osazefua, I. J. (2019). Operational efficiency and financial sustainability of listed manufacturing companies in Nigeria. *Journal of Accounting and Taxation*, 11(1), 17-31.
- Rubio-Andrés, M., Linuesa-Langreo, J., Gutiérrez-Broncano, S., & Sastre-Castillo, M. Á. (2024). How to improve market performance through competitive strategy and innovation in entrepreneurial SMEs. *International Entrepreneurship and Management Journal*, 20(3), 1677-1706.

- Salamah, S. N. (2023). Financial management strategies to improve business performance. *Journal of Contemporary Administration and Management (ADMAN)*, 1(1), 9-12.
- Usama, K. M., & Yusoff, W. F. (2019). The impact of financial literacy on business performance. *International Journal of Research and Innovation in Social Science*, 3(10), 84-91.
- Wulandari, S. (2022). Financial strategies and SME competitiveness. *Journal of Economics Unitria Business*, 7(2), 66–80.
- Yakob, S., Yakob, R., BAM, H. S., & Rusli, R. Z. A. (2021). Financial literacy and financial performance of small and medium-sized enterprises. *The South East Asian Journal of Management*, 15(1), 5.