



**CURRENT**  
**Jurnal Kajian Akuntansi dan Bisnis Terkini**  
<https://current.ejournal.unri.ac.id>



**E-COMMERCE, ACCOUNTING INFORMATION SYSTEMS, FINANCIAL LITERACY AND ACCOUNTING KNOWLEDGE: KEY DRIVERS OF MSME SUCCESS IN MALANG CITY**

**Khalimatus Sa'Diyyah<sup>1\*</sup>, Yuliati Yuliati<sup>2</sup>**

<sup>1,2</sup> Department of Accounting, Faculty of Economics, State Islamic University Maulana Malik Ibrahim Malang, Malang City

\*Email: [khalimatussadiyyah901@gmail.com](mailto:khalimatussadiyyah901@gmail.com)

---

**Keywords**

*E-Commerce, MSME Performance, Financial Literac, Accounting Knowledge, Accounting Information System*

---

**Article informations**

*Received:*

*2025-05-05*

*Accepted:*

*2025-07-09*

*Available Online:*

*2025-07-22*

---

**Abstract**

*This study aims to analyse the effect of e-commerce, accounting information systems, financial literacy, and accounting knowledge on the efficiency and effectiveness of MSME performance in Malang City. The present study employed a quantitative approach in its research methodology, which entailed the administration of questionnaires to 98 respondents as a means of data collection.. The present study employed data analysis techniques utilizing SPSS software, which is a statistical software program. The results show that the efficiency and effectiveness of MSME performance in Malang City are significantly influenced by the use of e-commerce and the application of accounting information systems. Meanwhile, financial literacy and accounting knowledge do not have a significant impact on MSME performance in terms of efficiency and effectiveness. These findings confirm the importance of digital technology adoption and structured financial information management to support business sustainability and development in this digital era.*

---

**INTRODUCTION**

Micro, Small, and Medium-sized Enterprises (MSME) are vital to the national economy and are the driving force behind Indonesia's growth. The development of the MSME sector has significantly helped reduce unemployment in the country through the increase in employment opportunities available in the community (Setyorini et al., 2019). According to data from the Malang City Industry and Trade Cooperative Office, MSME players in Malang City have reached 29,052 people engaged in various sectors from 2021 to 2023, the number has always increased. With so many MSME, Malang City has a great opportunity to grow if managed and developed in an optimal way. While it is revealed that the number of MSME in Malang City continues to grow, the existing data does not reveal the overall economic contribution and challenges faced by the sector. It is estimated that MSME contribute around 60% of Malang City's Gross Regional Domestic Product (GRDP) and absorb more than 70% of the workforce. However, various issues such as limited access to capital, lack of good business management, and low use of technology are still a barrier. By 2023, only 35% of MSME have utilized digital platforms. Addressing these issues is crucial to support sustainable economic growth in the city. However, in an effort to optimize their performance and competitiveness, MSME in Malang



City need to adapt to various technological developments and the demands of the modern market.

MSME performance reflects the results obtained by MSME in completing tasks based on knowledge, experience, and time in a certain period. To conduct efficient performance evaluations, appropriate training and technology development and utilization are needed to compete with other MSME (Wulandari et al., 2020). One of the challenges commonly faced by MSME in Malang City is the inability to utilize internet technology in recording financial statements, such as separating personal financial statements from business financial statements. E-commerce can be defined as a digital platform that can be accessed through computers connected to the internet. Business actors utilise it for the execution their business activities, while consumers employ it for the acquisition of information (Rafidah & Permatasari, 2024). The impact of e-commerce on the operational effectiveness of MSME is significant, as it leads to the expansion or market opportunities in an efficient manner. This finding is consistent with research by (Nusron et al., 2024), which clearly states that MSME are able to develop in line with the increasing role of technology such as e-commerce. In contrast, research by (Rusdi, Amiani, 2022), demonstrates that e-commerce exerts no influence on the capacity of MSME because most of them have not yet utilized the platform. The difference in results is due to factors such as the level of technology acceptance, the presence of infrastructure, and the nature of the MSME region. Regions that have better internet access and high digital literacy usually show positive effects of e-commerce compared to regions that have limited resources.

In addition to e-commerce, accounting information systems also have a significant task for the success of MSME. However, many MSME in Malang City are not fully aware of the importance of SIA and often only do simple recording of income and expenses without a more structured system. Accounting Information System is a system that helps the strategic decision-making process by managing financial data and providing relevant accounting news (Rafidah & Permatasari, 2024). The implementation of an effective accounting information system not only helps MSME in day-to-day operational aspects, but also strengthens businesses through systematic data management and more structured decision making. The understanding and application of a good accounting information system by MSME actors directly has an impact on improving operational efficiency and the effectiveness of their business performance (Fausiatunnisa, 2024). This finding is reinforced by previous research (Saraswati et al., 2024) accounting information systems significantly affect the ability of MSME. However, in research (Nusron et al., 2024) states that if accounting information systems do not have an impact on the performance of MSME, the low level of knowledge and skills of MSME actors in operating Accounting Information Systems is the main obstacle in utilizing the system. As a result, accounting information systems cannot provide significant involvement in improving the performance of MSME.

Knowledge and ability in financial literacy in the corporate world, especially among MSME, play a crucial role to ensure business continuity and the right decisions. Financial literacy can be defined as a deep insight into financial management both personal and business, which helps individuals in making financial decisions wisely and confidently. To strengthen the ability and competitiveness of MSME, business actors must have sufficient knowledge and skills related to financial management, such as cash flow data collection, capital management, and cost control (Virgia & Meirina, 2023). In line with the results of research by (Putrie & Ariani, 2024), it is proven that a higher level of financial literacy among MSME is directly proportional to their ability to manage business finances, which has positive implications for business performance. However, these findings are not always consistent. Research by (Christanty et al., 2023) colleagues actually shows that financial literacy does not have a significant influence on the performance of MSME. Variations in these results can be caused by various external factors such as capital constraints, market conditions, and the suitability of

the application of financial literacy in daily business activities. In other words, although financial literacy is important, its effectiveness is still influenced by business conditions and the readiness of MSME actors to implement it optimally.

Many MSME still have difficulty understanding and applying the basic principles of accounting in their business operations. Knowledge of accounting includes a range of abilities that include recording all financial transactions, grouping financial information, and compiling financial statements designed to assist business owners in decision-making. It also serves to assist business owners in formulating business strategies, managing expenses, and planning business growth (Agus & Zuhri, 2022). Research by Lestari and Rustiana (2019), definitively shows that MSME practitioners with a strong accounting background are more effective at managing their business finances. However, research by Prasetyo (2022) clearly shows that accounting knowledge is important, but many MSME still apply a very basic cash recording systems, and its influence impact on performance is often less significant.

The aim of this research is to pinpoint the elements that affect the success of MSMEs in Malang City. The findings from this research will certainly enhance our comprehension of the aspects that impact MSME effectiveness in utilizing e-commerce tools and implementing appropriate accounting information systems based on their scale. Improvement in financial literacy and expertise in accounting can be achieved through education and guidance. For government bodies and associated organizations, the findings of this research may serve as a foundation for creating support initiatives aimed at digitizing MSME and boosting their financial management skills.

## **HYPOTHESIS DEVELOPMENT**

### **Technology Acceptance Model Theory (TAM)**

The Technology Acceptance Model (TAM) is a theory first proposed by Davis in 1986, describing how individual decisions in adopting technology are based on two factors, namely, perceived usefulness and perceived ease of use (Damayanti & Mardiana, 2023). TAM theory is relevant to the use of accounting information systems and e-commerce because it can provide benefits to businesses. MSME actors will utilize accounting information systems to can help make more accurate financial decisions, and e-commerce can increase sales capacity, MSME actors will use this technology. In using effective technology, it can contribute to improving the overall performance of MSME.

### **Resource Based View Theory (RBV)**

The Resource Based View (RBV) emphasizes that achieving sustainable competitive advantage and optimal company capabilities is significantly influenced by the existence of strategic resources owned. This theory argues that these resources must meet the criteria of being high-value, rare, have no substitutes, and are difficult for competitors to duplicate (Elya, 2021). Good financial literacy and accounting knowledge are resources that are urgently needed by MSME actors because they support decisions related to finance, cash management, and capital efficiency. However, these two skills are still rarely possessed by MSME actors due to the limited knowledge, experience and time available to learn, making it difficult to replicate without a continuous learning process.

### **The Effect of E-Commerce on the Efficiency and Effectiveness of MSME Performance**

E-commerce is a digital trading method that enables buying and selling of goods or services over the internet (Setiawati et al., 2021). In the Technology Acceptance Model Theory (TAM), the choice of MSME to adopt e-commerce is influenced by their view of the benefits obtained in improving business performance. E-commerce can be utilized by MSME in Malang City through the application of digital technology that is suitable for business size and business demands, such as the use of marketplace applications, social media, and digital payment



systems. In addition, MSME players can also take advantage of easy digital bookkeeping applications and online promotion services to expand market reach. Research conducted by Nusron et al. (2024) and Zairina and Pabulo (2023) shows that e-commerce has a major influence on the performance of MSME. On the other hand, research by Rusdi and Amiani (2022) indicates that MSME performance is not affected by e-commerce. The observed variations in study's outcomes can be attributed to local factors such as the level of digital readiness, existing infrastructure, and the capabilities of MSMEs. Government involvement in providing training for digital skills, affordable technology, and adequate internet access is crucial to support MSMEs in adopting e-commerce.

**H<sub>1</sub>: E-commerce affects the efficiency and effectiveness of MSME performance.**

### **The Effect of Accounting Information System on the Efficiency and Effectiveness of MSME Performance**

Accounting information system is a framework that combines various elements to collect, analyze, and present financial data needed by business people in making the right decisions (Alifyandi, 2022). In the Technology Acceptance Model (TAM) theory, views regarding the usefulness and ease of use of the system directly affect individual attitudes towards accounting information systems. MSMEs will implement accounting information systems if they believe that the system can increase efficiency, improve report accuracy, and is easy to use. Factors such as education and training levels play an important role in the decision to adopt accounting information systems. MSMEs that have better levels of education and training tend to be better equipped to use technology because they are more aware of the benefits and proper use. Effective training will increase the ease of using the system. Research by Putri et al. (2024) and Saraswati et al. (2024) support this, showing that the implementation of accounting information systems can significantly improve the performance of MSME through the submission of more structured, accurate, and timely financial reports, and facilitate cash flow control and business decision making. However, not all studies produce similar findings. Research by Putrie and Ariani (2024) revealed that accounting information systems do not have a significant impact on the performance of MSME. The implementation of this system still faces challenges such as low levels of digital literacy, uneven distribution of internet networks, and lack of special training programs for MSMEs. This shows that even though the technology already exists, the sustainability of training and infrastructure is still important so that the implementation of AIS can run optimally.

**H<sub>2</sub>: Accounting information system affects the efficiency and effectiveness of MSME performance.**

### **The Effect of Financial Literacy on the Efficiency and Effectiveness of MSME Performance**

The term financial literacy is understood to denote an individual's capacity to evaluate and make informed financial decisions when presented with a choice. Thus, financial literacy directly affects a person's welfare (Iko, 2019). In the Resource Based View (RBV) theoretical framework, good financial literacy is considered valuable wealth because it MSME to make more informed financial decisions, manage cash flow well, and maximize the business capital structure. Financial literacy in Malang City has an impact on the performance of MSMEs because entrepreneurs who do not understand finance well have difficulties in managing cash flow and making the right business decisions. A number of MSME players in Malang City have not used financial reports optimally to advance their business. This situation hinders their ability to design strategies, obtain financing, and improve competitiveness. Research by Nafisa and Eko (2023) and Aulia et al. (2022), definitively demonstrates that financial literacy has an impact on MSMEs performance, although Prasetyo (2022), findings indicate that financial

literacy exerts no influence on the capabilities of MSME. MSME led by individuals with a high level of financial literacy tend to be more effective in making the optimal financial decisions, managing resources optimally, obtaining the right financing, and planning for sustainable business growth. Conversely, a lack of financial literacy skills can result in poor financial management, difficulty in obtaining financing, unmeasured risk-taking, and ultimately hinder the performance and growth potential of MSME.

**H3: Financial literacy affects the efficiency and effectiveness of MSME performance.**

### **The Effect of Accounting Knowledge on the Efficiency and Effectiveness of MSME Performance**

Accounting knowledge is an understanding of the facts, principles, and information related to the process of recording, classifying, and presenting economic events in a structured manner to produce relevant financial data in the business decision-making process (Lestari & Rustiana, 2019). Regular recording of daily transactions allows MSMEs to understand their financial state immediately and avoid cash shortages. Organized financial documents make it easier for business people to evaluate profits and losses, set selling prices, and draw up business development plans. In addition, good financial statements are a crucial factor when MSMEs apply for loans to banks or government capital support programs. Referring to the Resource Based View (RBV) theory, good accounting knowledge is considered a rare and strategic resource, especially in the context of MSME, given the limited understanding of accounting among small and medium-sized business actors. Research by Hoirul et al. (2021) and Bella et al. (2024), indicates that accounting knowledge has a significant impact on the performance of MSME, as the ability of business owners to effectively use financial information directly affects decision-making effectiveness, financial planning, and business control. This knowledge can be acquired from work experience, formal education, or specialized training organized by the government or other related institutions. However, different results were reported by Amanda and Suwandi (2024), indicating that accounting knowledge exerts a non-significant impact on the performance of MSME. This discrepancy can be attributed to various factors, including the limited scale of small businesses, their constrained time and resources which impede their capacity to implement effective accounting practices, and market conditions being more influenced by external factors than by technical skills in accounting.

**H4: Accounting knowledge affects the efficiency and effectiveness of MSME performance.**

### **RESEARCH METHODS**

This study utilizes a quantitative method and gathers original data through a survey. The research focuses on 98 individuals engaged in MSME within the trade industry in Malang City. The measurement of the variables was executed through the implementation of a five-point Likert scale, which includes: strongly disagree, disagree, neutral, agree, and strongly agree. Google Forms was utilized to execute the data collection process, with the collected data subsequently disseminated across various social media platforms, such as Instagram and WhatsApp, to effectively engage participants. The selection of the sample was done through purposive sampling techniques. This approach guaranteed that the targeted demographic was adequately represented and fulfilled the established research criteria. These criteria include: 1) MSME operating in Malang City and registered with the Office of Cooperatives, Industry and Trade (DISKOPINDAG), 2) MSME using accounting information systems or financial recording systems, 3) MSME selling products online. The analysis will include e-commerce ( $X_1$ ), accounting information system ( $X_2$ ), financial literacy ( $X_3$ ), accounting knowledge ( $X_4$ ), and efficiency and effectiveness of MSME performance ( $Y$ ). The following is an explanation of the operations and indicators of each of these variables:



**Table 1**  
**Operational Definition of Variables**

Variable	Definition	Indicator	Scale
E-Commerce (X <sub>1</sub> )	Utilization of internet and computer technology to buy and sell goods or services electronically (Suardana & Musmini, 2020).	1. Market 2. Sales 3. Service 4. Payment 5. Managerial	Ordinal
Accounting Information Systems (X <sub>2</sub> )	A system that digitizes and manages manually recorded accounting data (Mauliansyah & Saputra, 2020).	1. Operational data 2. Management accounting information 3. Financial accounting information	Ordinal
Financial Literacy (X <sub>3</sub> )	The knowledge and skills required for a person to understand and manage their finances wisely (Nusron et al., 2024).	1. Basic financial knowledge 2. Account in name of the company / business unit 3. Knowledge of savings guarantee 4. Knowledge of potential savings benefits 5. Loan	Ordinal
Accounting Knowledge (X <sub>4</sub> )	Truth about data or information used to record, organize, and describe economic events for decision-making purposes. (Prasetyo Eko, 2022).	1. Basic accounting knowledge 2. Knowledge of accounting bookkeeping procedures	Ordinal
Efficiency and Effectiveness of MSME Performance (Y)	The ability of an effort to achieve maximum results using the minimum possible resources and the ability of an effort to obtain predetermined business goals (Ulyasari et al., 2023)	1. Sales growth 2. Profit growth 3. Capital growth 4. Broad market growth rate 5. Employee growth rate	Ordinal

The examination in this study was carried out through several stages, including: 1) Validity and reliability testing to ensure the accuracy and reliability of research tools. 2) Perform classical assumption test which includes, normality test, multicollinearity test and heteroscedasticity test to ensure the suitability of parametric analysis. 3) Using multiple linear regression analysis to evaluate the effect of independent variables, such as e-commerce, accounting information systems, financial literacy, and accounting knowledge on the dependent variable, namely the efficiency and effectiveness of MSME performance, and to predict the value of the dependent variable if the value of the independent variable is known. 4) Perform hypothesis testing to determine the significance of research results or not (Sugiyono, 2020).

## RESULTS AND DISCUSSION

### Validity and Reability Test

Validity and reliability assessments are essential processes in quantitative research to verify the quality of instruments utilized. Validity assessments determine the effectiveness of

the questions in the survey for measuring the studied variables, commonly employing Pearson correlation analysis with a significance level if the p value is less than 0.05. Conversely, reliability assessments focus on measuring the consistency of the instrument, which is considered reliable if the Cronbach's Alpha value is greater than 0.6. Both forms of evaluation confirm that the gathered data is accurate, consistent, and suitable for additional analysis.

**Table 2**  
**Validity and Reliability Test Result**

Variables	Statement Items	Validity		Sig.	Decision	Reliability	
		Pearson Correlation	R Table N=30			Cronbach's Alpha	Decision
E-Commerce (X1)	X1.1	0.897	0.361	0.000	Valid	0.988	Reliable
	X1.2	0.875	0.361		Valid		
	X1.3	0.943	0.361		Valid		
	X1.4	0.897	0.361		Valid		
	X1.5	0.892	0.361		Valid		
Accounting Information System (X2)	X2.1	0.950	0.361	0.000	Valid	0.951	Reliable
	X2.2	0.901	0.361		Valid		
	X2.3	0.882	0.361		Valid		
	X2.4	0.910	0.361		Valid		
	X2.5	0.782	0.361		Valid		
Financial Literacy (X3)	X3.1	0.867	0.361	0.000	Valid	0.925	Reliable
	X3.2	0.926	0.361		Valid		
	X3.3	0.823	0.361		Valid		
	X3.4	0.865	0.361		Valid		
	X3.5	0.709	0.361		Valid		
Accounting Knowledge (X4)	X4.1	0.895	0.361	0.000	Valid	0.977	Reliable
	X4.2	0.824	0.361		Valid		
	X4.3	0.951	0.361		Valid		
	X4.4	0.893	0.361		Valid		
	X4.5	0.787	0.361		Valid		
Efficiency and Effectiveness of MSME Performance (Y)	Y1	0.941	0.361	0.000	Valid	0.975	Reliable
	Y2	0.941	0.361		Valid		
	Y3	0.938	0.361		Valid		
	Y4	0.947	0.361		Valid		
	Y5	0,874	0,361		Valid		

Source: SPSS V30, 2025

The results of the validity and reliability tests confirm that each question in the questionnaire is trustworthy and valid. Reliability testing showed an Alpha Cronbach value of  $< 0.6$  for all variables, while validity testing gave results of a Pearson value of  $< 0.361$  and a significance level of  $> 0$ .

### Normality Test

Normality test is a statistical technique that aims to determine whether the research data is normally distributed. The main objective of this process is to ensure that the data to be analyzed meet the criteria of normality, which is very important for the various statistical analysis techniques that will be used in the future.

**Table 3**  
**Normality Test Result**

One-Sample Kolmogorov-Smirnov Test	
Asymp.Sig.(2-tailed)	Decision
0.71	Normally Distributed

Source: SPSS V30, 2025

Based on Table 3, the value of Asymp.Sig is caught. (2-tailed) is 0.71, which surpasses



the significance level of 0.05. This finding indicates that the data have a normal distribution, since the p-value is greater than 0.05, so the null hypothesis in a normal test cannot be ruled out. Normality test conducted in this study using the Kolmogorov-Smirnov method aims to determine whether the data obtained in the regression analysis meet the criteria of normality.

**Multicollinearity Test**

Multicollinearity test is a process that is implemented to ensure the relationship between independent variables in the regression model. According to the results of multicollinearity analysis, there are indications of multicollinearity between variables in the regression model used, indicated by the observation of tolerance values greater than 0.1 and Variance Inflation Factor (VIF) less than 10.

**Table 4**  
**Multicollinearity Test Result**

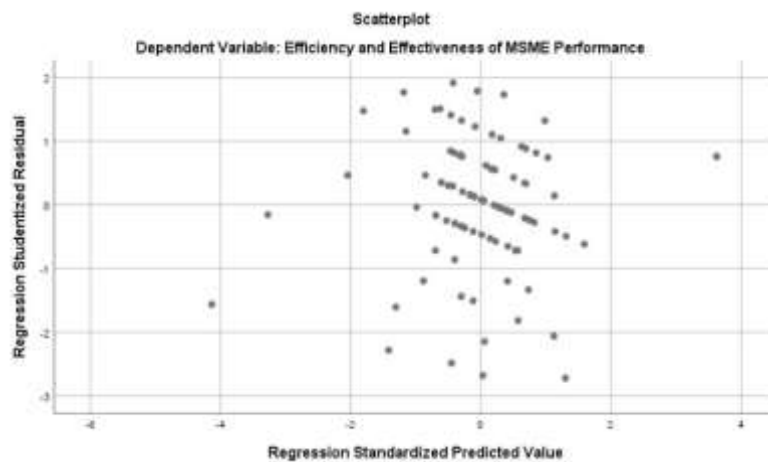
Variable	Tolerance		Decision
	Tolerance	VIF	
E-commerce (X <sub>1</sub> )	0,948	1,054	No Multicollinearity
Accounting Information System (X <sub>2</sub> )	0,927	1,078	No Multicollinearity
Financial Literacy (X <sub>3</sub> )	0,964	1,037	No Multicollinearity
Accounting Knowledge (X <sub>4</sub> )	0,947	1,056	No Multicollinearity

Source: SPSS V30, 2025

Table 4 shows that the size of e-commerce has a VIF value of 1.054, the accounting information system reaches a VIF of 1.078, financial literacy is recorded at 1.037, and the measure of accounting knowledge is 1.056. These values indicate that all variables do not show the presence of multicollinearity, as the tolerance level is < 0.10 and the VIF value is > 10, which confirms the reliability of the regression model.

**Heteroscedasticity Test**

The test for heteroscedasticity is conducted to assess if there are variations in the residual variance when comparing one review to another. A test is considered effective if it manages to eliminate indications of heterogeneity. There are multiple conditions to verify if heterogeneity signs are absent, such as data points being either dispersed or nearly equal to zero, the scattered points lacking any discernible pattern or wave, and not aggregating in a singular area either above or below a certain threshold.



**Figure 1**  
**Heteroscedasticity Test Result**

Source: SPSS V30, 2025



Figure 1, illustrates that the data points are dispersed throughout the area and lack a defined pattern or concentration in any particular region, suggesting that the research model shows no signs of heteroscedasticity. This scattered arrangement reflects a stable error variance.

### Multiple Linear Regression Test

This study applies multiple linear regression method to investigate the impact of e-commerce, accounting information systems, financial literacy level, and accounting knowledge on the efficiency and effectiveness of MSME operations in Malang City.

**Table 5**

**Multiple Linear Regression Test Result**

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig
1 (Constant)	9.992	4.101		2.436	0.017
E-commerce	0.130	0.125	0.105	0.105	0.300
Accounting Information System	0.243	0.109	0.229	0.229	0.027
Financial Literacy	0.143	0.095	0.152	0.152	0.135
Accounting Knowledge	0.006	0.102	0.005	0.005	0.957

Source: SPSS V30, 2025

Based on Table 5, the regression model can be obtained below:

$$Y = 9.992 + 0.130X_1 + 0.243X_2 + 0.143X_3 + 0.006X_4 + e$$

The constant value of 9.992 shows that when the e-commerce variable (X1), accounting information system (X2), financial literacy (X3) and accounting knowledge are all zero, the variable efficiency and effectiveness of MSME performance (Y) is also 9.992.

1. The coefficient obtained from the regression analysis for the X1 variable was recorded at 0.130. This shows that the increase in e-commerce variables is likely to contribute to increasing the efficiency and effectiveness of MSME performance in Malang City. On the other hand, if these variable decreases, then it can be predicted that there will be a decrease in performance, noting that no other variables are assessed in this study.
2. Regression analysis gave a coefficient of 0.243 for the X2 variable. This indicates that the improvement in the variables of the accounting information system is expected to increase the efficiency and effectiveness of the performance of MSME in Malang City. On the other hand, the decline in this variable is expected to result in a decrease in the performance of MSME, considering that there are no other variables calculated in this study.
3. The regression coefficient recorded for the X3 variable was 0.143. This value shows that increasing financial literacy is often related to increasing the efficiency and effectiveness of MSME performance in Malang City. On the other hand, if financial literacy decreases, then a negative impact on performance is predicted to occur, provided that no other variables are examined in this study.
4. The regression coefficient for the X4 variable is recorded as 0.006. This can be interpreted as an increase in accounting knowledge which has the potential to have a positive impact on the efficiency and effectiveness of MSME performance in Malang City. However, if there is a decline in this variable, the performance of MSME is expected to decline as well, with the note that other variables are not the focus of this study.

### Hypothesis Testing

#### Partial Test (T Test)

T test aims to assess whether the independent variable has a significant effect on the dependent variable. In this study, independent variables include e-commerce, accounting information systems, financial literacy, and understanding of accounting. On the other hand,



the dependent variable is related to the efficiency and effectiveness of MSME performance in Malang City.

**Table 6**  
**T Test Result**

Variables	Coefficient	Sig	Conclusion
E-commerce (X <sub>1</sub> )	2.230	0.028	Accepted
Accounting Information System (X <sub>2</sub> )	2.41	0.027	Accepted
Financial Literacy (X <sub>3</sub> )	1.120	0.266	Rejected
Accounting Knowledge (X <sub>4</sub> )	1.027	0.307	Rejected

Source: SPSS V30, 2025

The results of the test showed that the partial hypothesis is acceptable for e-commerce variables as well as accounting information systems. Therefore, these two variables have a partially significant impact on the efficiency and effectiveness of MSME performance in Malang City. On the other hand, the partial hypothesis is not accepted for financial literacy and accounting knowledge variables, which indicates that these two variables do not have a partial significant effect on the efficiency and effectiveness of MSME performance in Malang City.

**Simultaneous Test (F Test)**

F test is a statistical method applied to evaluate the regression relationship. The main focus is to determine whether all independent variables simultaneously have a meaningful influence on the dependent variable.

**Table 7**  
**F Test Result**

Model	F Result	Sig
Regression	4,485	0,002
Residual		
Total		

Source: SPSS V30, 2025

Based on the Table 7, the results of the f test have a significance score of 0.002 which is smaller than the standard significance of 0.05. Thus, it can be concluded that the variables of e-commerce, accounting information systems, financial literacy and accounting knowledge simultaneously have an impact on the efficiency and effectiveness of MSME performance in Malang City.

**Coefficient of Determination Test (R<sup>2</sup> Test)**

The coefficient of determination (R<sup>2</sup>) test was carried out to analyze and assess how large or important the contribution of the influence given by the independent variable simultaneously to the dependent variable.

**Table 8.**  
**Coefficient of Determination Test Result (R<sup>2</sup> Test)**

R	R Square	Adjusted R Square	Std. Error of the Estimate
0,402	0,162	0,126	1,838

Source: SPSS V30, 2025

Based on Table 8, it is explained that the value of Adjusted R Square (R<sup>2</sup>) reaches 0.126 which shows that 12.6% of the variables of e-commerce, accounting information systems, financial literacy, and accounting knowledge contribute to the efficiency and effectiveness of MSME performance in Malang City. Meanwhile, the remaining 87.4% were influenced by other factors.

### ***The Effect of E-Commerce on the Efficiency and Effectiveness of MSME Performance***

Based on the hypothesis testing results, the significance level is 0.028, indicating that e-commerce adoption positively affects the efficiency and effectiveness of MSMEs in Malang City. E-commerce expands the market reach for MSMEs by giving them the ability to access customers beyond their region to a national and global scale without geographical restrictions. Moreover, e-commerce also contributes to competitiveness through digital marketing, efficiency in transactions, and widening consumer networks. However, the effectiveness of its implementation is greatly influenced by various other aspects such as the availability of internet infrastructure, the cost of accessing technology, and the digital capabilities of businesses. Without the support of these factors, the potential of e-commerce cannot be fully utilized. This conclusion is in line with the Technology Acceptance Model (TAM) theory, which states that technology acceptance is shaped by two main elements: perceived usefulness and perceived benefits. This result also reinforces the findings of previous research by (Putrie & Ariani, 2024) which confirms that electronic commerce has the potential to strengthen the competitiveness and performance of MSMEs. The adoption of e-commerce is not just a temporary phenomenon, but an approach that is able to trigger change and bring significant and measurable effects to the growth of the MSME sector. This shows how vital e-commerce is as a priority in MSME development policies and projects in the future.

### ***The Effect of Accounting Information System on the Efficiency and Effectiveness of MSME Performance***

Findings from hypothesis testing indicate that the use of accounting information systems has a positive effect on the performance of MSMEs in Malang, which is reflected in the significance level reached 0.027. These systems play a crucial role in improving the efficiency of transaction recording processes, the accuracy of financial report preparation, and the provision of fast and reliable financial information. This finding is also aligned with the TAM theory, where understanding and perceiving the benefits of technology can accelerate the adoption process. In addition to acting as a means to record finances, accounting information systems also help in the decision-making process in business and strengthen the competitiveness of MSMEs in the market. This is further supported by findings from prior research conducted by (Putri et al., 2024). An accounting information system serves not only as a tool for recording financial transactions but also as a system that supports decision making by providing relevant financial information for planning a business and determining strategy. However, how effective an accounting information system is depending on a number of supporting factors, such as the existence of adequate infrastructure, the digital capabilities of business owners and staff, and the suitability of system features to the company's operational needs. If these supporting elements are not present, it is likely that the maximum benefit from the accounting information system will not be fully achieved.

### ***The Effect of Financial Literacy on the Efficiency and Effectiveness of MSME Performance***

The results of hypothesis testing indicate a significance level of 0.266, which indicates that financial literacy does not have a positive impact on the efficiency and effectiveness of MSMEs in Malang. The results of hypothesis testing showed that the significance level of 0.266, which indicates that financial literacy does not contribute positively to the efficiency and effectiveness of MSMEs in Malang. Although MSME owners have insight into finance, the application of this knowledge is hindered by external factors such as lack of capital, inadequate infrastructure and market conditions. In addition, the financial management system of MSMEs which is generally still simple causes financial literacy not to be a major factor in improving performance efficiency and effectiveness. This result is in line with previous research by (Prasetyo Eko, 2022), which also found that financial literacy does not have a significant impact



on the performance of MSMEs. Although financial literacy has an important role, other elements such as facility support, government regulation, and market conditions have a greater influence in influencing the overall performance of MSMEs.

### ***The Effect of Accounting Knowledge on the Efficiency and Effectiveness of MSME Performance***

The results of the hypothesis test on accounting understanding showed a significance value of 0.307, which indicates that accounting knowledge does not have a significant impact on the efficiency and effectiveness of MSME performance in Malang. These results once again contradict RBV theory, which asserts that accounting proficiency can serve as a strategic resource for developing a competitive advantage. In practice, however, the application of accounting knowledge within the MSME environment still faces several obstacles, such as limited time, human resources, and suboptimal transaction recording systems. Additionally, the relatively small business scale and external factors, such as market dynamics and government regulations, are considered to exert a more dominant influence on MSME performance than the mastery of accounting knowledge. This finding aligns with the conclusions of earlier studies, including those by Amanda and Suwandi (2024) which similarly concluded that accounting knowledge does not exert a substantial influence on the performance of MSME entities. This happens because many MSMEs have not utilized financial reports as the main basis for running a business. Many decisions are made directly without any analysis of official financial reports, so that even though business actors have an understanding of accounting, their application in daily operational activities is still very small and has not had a direct impact on the performance of MSMEs.

### ***The Influence of E-Commerce, Accounting Information Systems, Financial Literacy and Accounting Knowledge on the Efficiency and Effectiveness of MSME Performance***

E-commerce, accounting information systems, financial literacy, and accounting knowledge together affect the efficiency and effectiveness of MSME performance in Malang with a value of 0.002 which is smaller than 0.05. This shows that the use of e-commerce, the implementation of an effective accounting information system, a good level of financial literacy, and an understanding of accounting by MSME players collectively make a real contribution to improving the efficiency and effectiveness of their business. This simultaneous effect occurs because these elements are interrelated in supporting business activities. E-commerce facilitates access to a wider market and speeds up the transaction process, while accounting information systems improve the accuracy and efficiency of financial records. On the other hand, an understanding of financial and accounting knowledge enables MSME players to read financial information correctly and make informed business decisions. Combining these aspects strengthens overall business operations, resulting in a comprehensive system that can improve operational efficiency and business performance.

## **CONCLUSION**

The findings of the study indicate that e-commerce and accounting information systems have an important function in improving the efficiency and effectiveness of MSME performance in Malang. Technology is proven to have a positive impact on business operations, especially in expanding market reach, accelerating transactions, and supporting more organized and precise financial management in decision making. On the other hand, financial literacy and accounting knowledge have not had a significant impact on the performance of MSMEs. This is because its application still limited and influenced by factors such as educational background, time constraints, lack of human resources, and relatively small business size. Therefore, MSMEs need to continue to improve their digital capabilities, especially in utilizing e-

commerce for online marketing, using digital payment methods, and implementing simple cloud-based accounting applications to improve operational efficiency and accuracy of financial records. In the long term, such measures can expand market access, strengthen competitiveness and ensure business sustainability. However, challenges such as limited infrastructure, low digital skills, and data security risks still need to be addressed through integrated training programs, digital infrastructure development, and government-supported mentoring programs. For further research, it is recommended to add new variables such as business financing, product innovation, and digital marketing strategies, as well as expand the research area to get a more comprehensive picture of the factors that affect the performance of MSMEs. In addition, interviews can be used to dive deeper into real conditions and obstacles faced by MSME actors in adopting digital technology.

## REFERENCES

- Agus, S, N., & Zuhri, F. (2022). Pengaruh Inklusi Keuangan, Literasi Keuangan, Kemampuan Manajerial, Pengetahuan Akuntansi dan Kompetensi SDM Terhadap Kinerja UMKM. *Jurnal Akuntansi, Manajemen & Perbankan Syariah*, 2(6), 57–72.
- Alifyandi, F. S. A. (2022). Pengaruh Penerapan Sistem Informasi Akuntansi Dan Pemanfaatan Teknologi Informasi Terhadap Kinerja UMKM. *Jurnal Proaksi*. 9(2), 173–187.
- Amanda, S. D., & Suwandi, S. (2024). Pengaruh Pengetahuan Akuntansi dan Motivasi Kerja Terhadap Kinerja UMKM dengan Penggunaan Informasi Akuntansi Sebagai Variabel Mediasi ( Studi pada Pelaku UMKM di Kabupaten Gresik ). *Jurnal Riset Ekonomi dan Akuntansi*. 2(4).
- Aulia, P., Asisa, W., Dalianti, N., & Handa, Y. R. (2022). Pengaruh Pemahaman Literasi Keuangan dan Kemudahan Digital Payment Terhadap Kinerja UMKM di Kota Makassar. *Jurnal Dinamika*, 3(1), 23–50. <https://doi.org/10.18326/dinamika.v3i1.23-50>
- Bella, S., Hendarmin, R., & Ratu, M. K. (2024). Pengaruh Pengetahuan Akuntansi Dan Kemampuan Teknik Personal Terhadap Efektivitas Sistem Informasi Akuntansi (Survey Pada Pelaku Umkm Di Kecamatan Kalidoni Palembang). *Jurnal Review Pendidikan Dan Pengajaran*, 7(3), 6474–6483.
- Christanty, L., Nugroho, W. S., Nurcahyono, N., & Maharani, B. (2023). Accounting Information Systems and Financial Literacy impact on SMEs' performance. *Maksimum*, 13(1), 59. <https://doi.org/10.26714/mki.13.1.2023.66-75>
- Damayanti, A., & Mardiana. (2023). Peran Financial Technology Sebagai Mediator Pada Pengaruh Literasi Keuangan Terhadap Kinerja Umkm. *Akuntansi Dewantara*, 7(2), 183–197. <https://doi.org/10.30738/ad.v7i2.14855>
- Elya, D. R. (2021). Manajemen Strategi : Kajian Teori Resource Based View. *Coopetition : Jurnal Ilmiah Manajemen*, 12(3), 447–454. <https://doi.org/10.32670/coopetition.v12i3.710>
- Fausiatunnisa, N. F. E. (2024). Pengaruh Penggunaan *E-Commerce* , Modal Usaha , dan Penggunaan Sistem Informasi Akuntansi Terhadap Kinerja Keuangan UMKM di Kota Padang. *Jurnal Ekonomi Bisnis dan Manajemen*. 2(4), 140–150.
- Hoirul, U., Siti, R., & Masyhad. (2021). Pengaruh Pengetahuan Akuntansi Dan Perilaku Keuangan Terhadap Kinerja Manajerial Umkm Makanan Di Sidoarjo. *Jurnal Akuntansi* 45, 2(1), 38–43. <https://doi.org/10.30640/akuntansi45.v2i1.104>
- Iko, P. Y. W. (2019). Pengaruh Inklusi Keuangan Dan Literasi Keuangan Terhadap Kinerja Umkm Di Kecamatan Moyo Utara. *Jurnal Manajemen Dan Bisnis*, 2(1). <https://doi.org/10.37673/jmb.v2i1.305>
- Lestari, N. A., & Rustiana, S. H. (2019). Pengaruh Persepsi Owner Dan Pengetahuan Akuntansi Dalam Penggunaan Sistem Informasi Akuntansi Terhadap Kinerja Usaha Mikro, Kecil, Dan Menengah Di Pamulang. *Journal of Business & Entrepreneurship Universitas*



- Muhammadiyah Jakarta*, 1(2), 67–80. <https://doi.org/10.24853/baskara.1.2.67-80>
- Mauliansyah, T. I. R., & Saputra, M. (2020). Pengaruh Penerapan Sistem Informasi Akuntansi (Sia) Terhadap Kinerja Perusahaan (Studi Empiris Pada Umkm Di Kota Banda Aceh). *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi*, 4(4), 602–612. <https://doi.org/10.24815/jimeka.v4i4.15321>
- Nafisa, A. A., & Eko.T. (2023). Pengaruh Literasi Keuangan, Pemanfaatan Teknologi Informasi Dan Penggunaan Informasi Akuntansi Terhadap Kinerja UMKM Di Kecamatan Teras Kabupaten Boyolali. *Jurnal Ilmiah Research and Development Student*, 1(2), 75–89. <https://doi.org/10.59024/jis.v1i2.322>
- Nusron, L., Yennisa, Y., & Suharni, S. (2024). Sistem Informasi Akuntansi, *E-Commerce*, Budaya Organisasi Dan Literasi Keuangan: Sebagai Peningkat Kinerja UMKM. *Jurnal Aplikasi Akuntansi*, 8(2), 346–357. <https://doi.org/10.29303/jaa.v8i2.320>
- Prasetyo, E. F. (2022). Pengaruh *E-Commerce*, Pengetahuan Akuntansi, Budaya Organisasi dan Literasi Keuangan terhadap Kinerja UMKM. *National Multidisciplinary Sciences*, 1(3), 370–383. <https://doi.org/10.32528/nms.v1i3.102>
- Putri, N. A., Widyastuti, T., Maidani, M., & Nilasari, P. (2024). Pengaruh Penerapan Sistem Informasi Akuntansi Dan Pemanfaatan Teknologi Informasi Terhadap Kinerja Umkm Di Kecamatan Tambun Selatan. *SENTRI: Jurnal Riset Ilmiah*, 3(2), 720–739. <https://doi.org/10.55681/sentri.v3i2.2323>
- Putrie, A. S., & Ariani, K. R. (2024). Pengaruh Penggunaan *E-Commerce*, Pemahaman Sistem Informasi Akuntansi dan Literasi Keuangan Pada Kinerja Perusahaan UMKM. *Jurnal Akuntansi Dan Keuangan Kontemporer (JAKK)*, 7(2). <https://doi.org/10.30596/jakk.v7i2.20281>
- Rafidah, A., & Permatasari, D. (2024). The Effect of Accounting Information Systems , E-commerce , and Social Media with Business Strategy as a Moderating Variable on MSME Performance in Karawang Regency performance of MSMEs in Karawang Regency. *Jurnal Akuntansi, Manajemen dan Ekonomi* . 26(2), 1–16.
- Rusdi, A. I. M. M. (2022). Pengaruh Media Sosial, Ecommerce Dan Website Terhadap Kinerja Umkm Pada Umkm Tenun Di Lombok Tengah. *Kompeten: Jurnal Ilmiah Ekonomi dan Bisnis* . 4(November), 2–5.
- Saraswati, D., Rioni, Y. S., Malikhah, I., & Hrp, A. P. (2024). Pengaruh Sistem Informasi Akuntansi Dan Efektivitas Pengambilan Keputusan Terhadap Kinerja UMKM DiDesa Pematang Serai. *Indo-Fintech Intellectuals : Journal of Economics and Business*. 4(2), 62–69.
- Setiawati, E., Diana, N., & Cholid Mawardi, M. (2021). Pengaruh *E-Commerce*, Pengetahuan Akuntansi dan Budaya Organisasi terhadap Kinerja UMKM di Kota Malang. *E-Jra*, 10(04), 37.
- Setyorini, D., Nurhayaty, E., & Rosmita, R. (2019). Pengaruh Transaksi Online (*E-Commerce*) Terhadap Peningkatan Laba Umkm (Studi Kasus Umkm Pengolahan Besi Ciampea Bogor Jawa Barat). *Jurnal Mitra Manajemen*, 3(5), 501–509. <https://doi.org/10.52160/ejmm.v3i5.228>
- Suardana, K. A., & Musmini, L. S. (2020). Pengaruh Literasi Keuangan, Akses Permodalan Dan Minat Menggunakan *E-Commerce* Terhadap Kinerja Umkm Di Kecamatan Buleleng. *Jurnal Ilmiah Mahasiswa Akuntansi*. Universitas Pendidikan Ganesha, 11(1), 191–202.
- Sugiyono. (2020). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Ulyasari, O. R., Agustina, D., Wardhani, R. S., & Ilhamsyah, A. W. (2023). Pengaruh *E-Commerce* Dan Sistem Informasi Akuntansi Terhadap Kinerja Umkm Terhadap Kinerja Umkm Sektor Industri. *Jurnal Ilmiah Global Education*, 4(2), 799–808. <https://doi.org/10.55681/jige.v4i2.642>
- Virgia, T., & Meirina, E. (2023). Pengaruh Literasi Keuangan dan Orientasi Pasar Terhadap

- Kinerja UMKM. *Publikasi Riset Mahasiswa Akuntansi*, 4(2), 179–191.  
<https://doi.org/10.35957/prima.v4i2.4786>
- Wulandari, M., & Sudaryanti, D. (2020). Pengaruh *E-Commerce* Dan Penggunaan Sistem Informasi Akuntansi Pada Pengambilan Keputusan Dalam Berwirausaha Di Sanggam Mart Kabupaten Balangan. *E-Jra*, 09(04), 68–82.
- Zairina, N., & Pabulo, A. M. A. (2023). Pengaruh Literasi Keuangan, Kompetensi Sumber Daya Manusia, Dan Implementasi *E-Commerce* Terhadap Kinerja UMKM di Kabupaten Bantul. *Jurnal Ilmiah Edunomika*, 08(01), 1–12. <https://jurnal.stie-aas.ac.id/index.php/jie/article/view/11185>  
<https://jurnal.stie-aas.ac.id/index.php/jie/article/download/11185/4522>

