

Enhancing Micro, Small, and Medium Enterprises (MSMEs) performance through accounting knowledge, e-commerce, and network relationships

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ABSTRACT

Purpose — *The growth and development of MSMEs are increasing rapidly. In order to gain customers and survive in an intensely competitive and uncertain market, MSMEs should improve their knowledge and technology, have a good understanding of electronic commerce, and expand their network relationships. This research aims to analyze the influence of accounting knowledge, understanding of e-commerce, and network relationships on the performance of MSMEs.*

Method — *This study employs a quantitative research approach, conducted through a survey. Data were acquired by distributing questionnaires to MSME owners. The sample for this study comprises 96 MSMEs in the city of Yogyakarta, Indonesia. The independent variables in this study include accounting knowledge, understanding of e-commerce, and network relationships, while the dependent variable is the performance of MSMEs. To test the proposed hypotheses, this research utilizes multiple linear regression analysis with SPSS software for data processing.*

Result — *The results of this research show empirical evidence that accounting knowledge, the use of e-commerce, and network relationships have a positive and significant effect on the performance of MSMEs.*

Contribution — *This research examines the roles of accounting knowledge, the use of e-commerce technology, and business networks in MSMEs. These aspects have not been widely studied by previous researchers. The study provides new insights for MSMEs to improve performance from both internal perspectives, such as accounting and e-commerce adoption, and external perspectives, such as expanding business network relationships.*

Keywords: *accounting knowledge, e-commerce, network relationship, MSME performance*

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in supporting the national economy. The sustainability of the country's economy is influenced by the MSME sector, which holds significant importance and has consistently acted as the backbone of the country's economy during times of crisis. MSMEs have a vital role in labor absorption, reducing unemployment, and contributing to the Gross Domestic Product (Suhaili & Sugiharsono, 2019). In several countries with growing economies, such as Indonesia, the presence of MSMEs is an intriguing phenomenon. MSMEs have even become the backbone of the Indonesian economy, contributing more than 61% to the Gross Domestic Product (GDP), employing 97% of the national workforce, and constituting around 99% of businesses in Indonesia (Indonesia Investments, 2022). Micro and small enterprises contribute 43% to Indonesia's GDP, while medium and large businesses contribute 57% (ILO, 2019). MSMEs are generally owned by individuals or families who are fully responsible for the businesses they operate. Therefore, they must possess adequate knowledge, expertise, and abilities to overcome various obstacles that may arise in their business operations. The main obstacle often faced by MSMEs is related to the capital structure, lack of or limited access to financial services, and limited ability to manage finances due to a lack of accounting knowledge or financial management (Deliana et al., 2020; ILO, 2019).



Accounting knowledge is exceedingly important and relevant for MSMEs, especially with the current accounting regulations promoting the development of MSMEs through the issuance of accounting standards for micro, small, and medium entities (*Standar Akuntansi Keuangan Entitas Mikro, Kecil, dan Menengah - SAK EMKM*) by the Indonesian Institute of Accountants (IAI) and IFRS for SMEs from IFAC. Accounting knowledge is crucial for both large and small companies. It facilitates MSMEs in determining their capital and external debt, calculating incurred costs, income, and profits earned (Zayed & Sinha, 2019; Alimbudiono, 2020). Accounting knowledge is necessary for achieving optimal performance (Andhika & Damayanti, 2017). The results of previous studies have shown that accounting knowledge significantly influences the performance of MSMEs (Setiawati, Marwadi, & Diana, 2021; Syabila et al., 2021).

MSMEs must also have a comprehensive understanding of e-commerce to support the development of their businesses. E-commerce serves as a platform to engage with customers and other business partners, ultimately enhancing the company's business performance (Hussain et al., 2020). The presence of e-commerce can bring added value to the company by facilitating the promotion or introduction of new services, expanding market shares, incorporating new business models, and enabling global market expansion.

Sedighi and Sirang (2018) demonstrate that e-commerce significantly influences business performance. According to the Sea Insight survey, only 54 percent of MSMEs utilize social media and embrace e-commerce. The adoption of e-commerce has a direct impact on increasing the income of MSMEs. Data from the Association of Indonesian Internet Service Providers (APIII) in 2020 reveals that fashion and beauty products hold the largest share in e-commerce usage at 25%, followed by household products at 6.5%, electronic products at 6.4%, and other categories at 4.4% (wartajogja.id, 2021). Engaging in e-commerce activities does not necessarily require suppliers, agents, and manufacturers to create websites. There are various ways to market and offer goods and services beyond websites, such as utilizing blogs and social media.

Network relationships are another crucial factor for improving business performance. Establishing and maintaining strong interpersonal relationships between entrepreneurs, customers, and business partners is increasingly vital to sustain and enhance performance. These relationships can mitigate company weaknesses, transaction costs, and risks. Additionally, they facilitate the exchange of knowledge, expertise, and resources with business partners. Therefore, network relationships are considered a vital determinant of company performance. Previous research conducted by Lin and Lin (2015) found that network relationships significantly affect business performance.

To date, there has been no research examining the simultaneous influence of accounting knowledge, e-commerce, and network relationships on the performance of MSMEs. This study aims to investigate the effects of accounting knowledge, understanding of e-commerce, and network relationships on MSMEs' performance. This research is relevant because the government is currently encouraging MSMEs to develop and become economic drivers in both the national and global markets. The results of this study are useful for providing new data on the role of accounting, e-commerce, and network relationships in MSMEs. Furthermore, this study offers a practical contribution to authorities in developing policies to accelerate MSMEs' performance.

METHOD

The study focused on MSMEs located in Yogyakarta, Indonesia. The research sample was gathered using the convenience sampling method. Data were collected by directly distributing questionnaires to the owners of MSMEs. In total, 96 MSME business owners participated in this study.

The independent variables considered in this study are accounting knowledge, understanding of e-commerce, and network relationships. Accounting knowledge will be measured using declarative and procedural knowledge indicators (Lestari & Rustiana, 2019). The understanding

of e-commerce variable will be assessed using the following indicators: (1) marketing, (2) sales, (3) service, (4) payment, and (5) managerial aspects (Lovita & Susanty, 2021). On the other hand, the network relationship variable will be measured using indicators such as Long-Term Network Relationship, Project Type Network Relationship, Short-Term Network Relationship, and Team Type Network Relationship (Lin & Lin, 2015).

The dependent variable under consideration in this study is the performance of SMEs. Company performance is defined as the level of success a company achieves in attaining its goals through the utilization of its various resources (Ismanu & Kusmintarti, 2019). The measurement of MSME performance variables is based on Kore and Septarini (2018), incorporating indicators like increased sales growth rate/sales turnover, capital growth, labor growth, market growth, and profit growth.

A detailed overview of the indicators and questions used to measure each variable can be seen in the table below:

Table 1. Research variables, indicators, and statements

| No. | Variables | Indicators | Statements |
|-----|--|-----------------------|---|
| 1 | Accounting Knowledge (Lestari & Rustiana, 2019) | Declarative knowledge | I know the accounting equation formula |
| | | | I know the accounting cycle |
| | | | I know the accounts in the general ledger |
| | | | I know the function of journal entry |
| | | | I know the debits and credits in the journaling process |
| | | | I know the general ledger format |
| | | | I know the function of the ledger |
| | | | I know the trial balance format |
| | | | I know the trial balance function |
| | | | I know an account that requires adjusting entries |
| | | | I know the adjusting journal function |
| | | Procedural Knowledge | I know the financial accounting standards of micro, small and medium entities (SAK EMKM) |
| | | | I know how to enter transactions into the appropriate account groups |
| | | | I know how to group transactions into a general ledger |
| | | | I know the balance calculation (difference between debits and credits) for each account in the general ledger |
| | | | I know how to prepare an income statement |
| | | | I know how to prepare a capital change report |
| | | | I know how to prepare a cash flow statement |
| | | | I know how to prepare a balance sheet |
| 2. | E-commerce (Lovita & Susanty, 2021) | Marketing | I understand how to identify customers via e-commerce |
| | | | The use of e-commerce provides convenience in doing marketing |
| | | | I understand how to advertise via e-commerce |
| | | Sales | I understand how to make sales via e-commerce |
| | | | e-commerce creates opportunities for sales globally |
| | | Services | I can guarantee my online customers |
| | | | My online business has good after-sales service |

| | | | |
|----|---|-----------------------------------|--|
| | | | I understand that e-commerce provides excellent support and services for customers |
| | | Payment | I understand the payment system provided by e-commerce |
| | | | I can make payments securely via e-commerce |
| | | Managerial | I understand how to do inventory management automatically |
| | | | I can easily do cost management with e-commerce |
| | | | e-commerce is useful for an efficient and effective managerial system |
| 3. | Network relationship (Lin & Lin, 2015) | Long-Term Network Relationship | I have a long-term relationship with partners to build trust |
| | | | I can share market opportunities and knowledge |
| | | | I can reduce transaction fees through my network |
| | | Project Type Network Relationship | I am oriented towards deepening relationships with partners |
| | | | I focus on service improvement |
| | | Short-Term Network Relationship | I focus on producing new products |
| | | | I have a risk and profit-sharing system with partners |
| | | | I have a risk-taking attitude |
| | | Team Type Network Relationship | I focus on improving reputation |
| | | | I am oriented to customer trust |
| 4. | Performance of MSMEs (Kore & Septarini, 2018) | Increased sales | My business has increased sales every month |
| | | | My business has experienced an increase in the number of items sold in the last 1 year |
| | | Capital growth | Some of the profits I get are used to increase business capital |
| | | | I use external capital such as bank credit loans to expand my business |
| | | Labor growth | I added employees to help complete orders faster |
| | | | I recruit professionals to improve management performance |
| | | Market share growth | I am expanding my marketing network to overseas |
| | | | The demand for the products or services that I offer is increasing day by day |
| | | Profit growth | My business is increasing in profit every month |
| | | | My business has never experienced a loss |

Source: Authors' compilation (2023)

The data analysis technique utilized in this study involved regression analysis conducted using the SPSS 25 application program. Regression analysis was chosen to test the hypotheses, aiming to determine the level of significance of the influence of the independent variable on the dependent variable. Prior to conducting the regression test, classical assumption tests were performed, including the normality test, multicollinearity test, and heteroscedasticity test. Furthermore, descriptive statistics were employed to analyze the data, providing insights into the characteristics of the dataset. Descriptive statistical testing encompassed measurements

such as the number of samples, maximum and minimum values, average values (means), and standard deviations.

The regression model used in this study is as follows:

$$Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + e$$

Whereas:

Y : MSMEs performance
 α : Constant
 X_1 : Accounting knowledge
 X_2 : E-commerce
 X_3 : Network relationship
 $\beta_1, \beta_2, \beta_3$: Coefficients of regression
 e : error

Hypothesis development

Accounting knowledge and MSMEs performance

Accounting knowledge is a crucial aspect of any business, providing essential information to support business operations, performance evaluation, and decision-making. It encompasses conceptual knowledge and skills required to furnish accounting information to stakeholders (Alimbudiono, 2020). Generally, accounting knowledge can be classified into five main areas: financial accounting, management accounting, accounting information systems, auditing, and taxation.

For MSMEs, accounting knowledge offers the benefit of facilitating the monitoring of organizational and financial aspects, ultimately enhancing business performance. The higher the level of accounting knowledge possessed by MSMEs, the better their business performance is expected to be. Hypothesis 1 is formulated as follows:

H1: Accounting knowledge has a positive effect on the performance of Micro, Small, and Medium Enterprises (MSMEs)

E-commerce and MSMEs performance

E-commerce is the electronic buying and selling of goods or services involving transactions over the internet, networks, and other digital technologies. Its scope encompasses sales, purchases, orders, payments, and promotion of goods or services carried out through computers, electronic communication facilities, digital telecommunications, and internet networks (Suhada et al., 2021).

E-commerce serves as a platform to interact with various business partners, thereby enhancing company performance (Hussain et al., 2020). The adoption of e-commerce has brought about significant changes in business operations, altering the approaches to selling, purchasing, and communication with all business partners. This shift has redirected the business perspective from production excellence to customer intimacy. The utilization of e-commerce significantly impacts performance, leading to increased sales growth, profits, asset returns, customer satisfaction, financial performance, customer loyalty, and employee performance.

Both large and small-scale companies can leverage e-commerce to expand their market share and introduce their products to new consumers without the constraints of distance and time (Hariandi et al., 2019). E-commerce stands as an effective solution for companies, particularly MSMEs, aiming to penetrate the global market (Sarastyarini & Yadnyana, 2018). E-commerce

enhances the speed and accuracy of information while reducing operational costs. Moreover, it attracts consumers and improves interactions with business partners, ultimately enhancing company performance (Hussain et al., 2020). Understanding e-commerce includes the ability to use it for supporting promotional and marketing activities, sales, payments, services, and management (Lovita & Susanty, 2021). This study predicts that e-commerce has a positive impact on the performance of MSMEs. Formally, hypothesis 2 is stated as follows:

H2: E-commerce has a positive effect on the performance of Micro, Small, and Medium Enterprises (MSMEs)

Network relationships and MSMEs performance

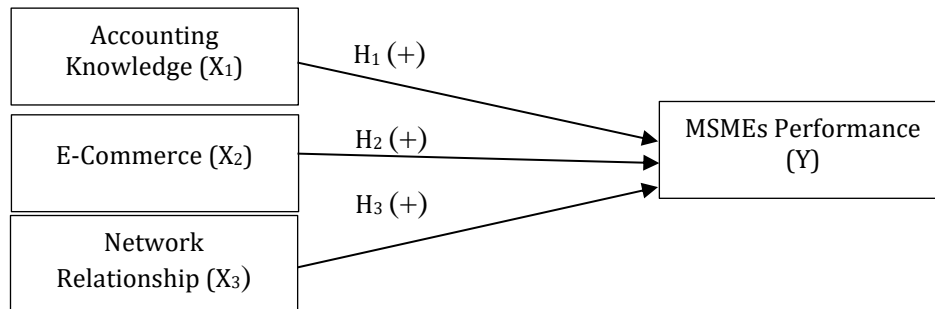
A network is a relationship formed by a company or organization with other parties aimed at obtaining benefits or advantages (Huda & Munandar, 2021). A network relationship serves as an essential means to overcome resource and capability deficiencies, thereby increasing a company's likelihood of success (Lin & Lin, 2015). Networks offer several benefits, including minimized transaction costs, enhanced market power, reduced shared risk, and improved access to vital resources such as capital and information.

Lin and Lin (2015) emphasized the benefits of network relationships for companies, which include knowledge sharing, accelerated innovation, reduced transaction costs, enhanced reputation, creation of new markets and opportunities, and facilitation of international relations. Network relationships encompass all connections within the broader personal and organizational network, maintained by managers to identify future exploitable opportunities. Forms of business networks include strategic alliances, joint ventures, licensing arrangements, subcontracting, R&D, and marketing cooperation activities.

A network relationship stands as a significant factor in enhancing business performance (Lin & Lin, 2015). It not only strengthens individual partners but also fortifies the network as a whole. The establishment and nurturing of robust interpersonal relationships among entrepreneurs are increasingly critical for companies facing globalization and heightened competition. Networks enhance interaction among partners, representing complementary resources, enabling access to knowledge and technology. Furthermore, networks can compensate for company weaknesses, reducing transaction costs and risks, while promoting the exchange of knowledge and capabilities. Network relationships are interconnected within the personal network maintained by company managers, aimed at identifying future opportunities to improve business performance.

Given the ability of networks to connect diverse individuals and organizations and facilitate the exchange of resources, network relationships are considered a vital determinant of company performance. Based on the results of previous studies and the description above, hypothesis 3 is formulated as follows:

H3: Network relationships have a positive effect on the performance of Micro, Small, and Medium Enterprises (MSMEs)

Figure 1. Research framework

Source: Authors' compilation (2023)

RESULT AND DISCUSSION

Characteristics of respondents

The characteristics of the respondents in this study were described based on several criteria, namely gender, age, last education of the business owner, and length of business.

Table 2. Characteristic of respondents

| Characteristics | Frequency | Percent |
|------------------------|-----------|---------|
| <i>Gender</i> | | |
| Male | 15 | 15,6% |
| Female | 81 | 84,4% |
| <i>Age</i> | | |
| 20-30 years old | 35 | 36,5% |
| 31-40 years old | 30 | 31,3% |
| 41-50 years old | 22 | 22,9% |
| >50 years old | 9 | 9,4% |
| <i>Education</i> | | |
| Elementary School | 2 | 2,1% |
| Junior School | 4 | 4,2% |
| Senior High School | 41 | 42,7% |
| Undergraduate | 48 | 50% |
| Postgraduate | 1 | 1% |
| <i>Business Tenure</i> | | |
| 1-2 years | 43 | 44,8% |
| 3-4 years | 29 | 30,2% |
| 5-6 years | 12 | 12,5% |
| >7 years | 12 | 12,5% |

Source: Processed data (2023)

Based on Table 2, the majority of MSME owners are female, accounting for 84.4%, while 15.6% of MSME owners are male. The respondents were grouped based on age into four categories: 20 to 30 years, 31 to 40 years, 41 to 50 years, and over 50 years. According to the age groupings, the majority of MSME owners fall between the ages of 20 and 30, constituting 36.5%. Another 31.3% of MSME owners are aged 31 to 40, 22.9% are between 41 and 50, and 9.4% are over 50 years old. Regarding education level, 2.1% of MSME owners have an elementary school education, 4.2% have completed junior high school, and 42.7% have achieved a senior high school education. The majority of MSME owners have an undergraduate level of education (50%), and

1% have a postgraduate level of education. Meanwhile, in terms of the length of business operation, most MSMEs have been established for 1 to 2 years, accounting for 44.8%. Additionally, 30.2% of MSMEs have been in existence for 3 to 4 years, and 12.5% have been established for 5 to 6 years or more than 7 years.

Descriptive statistics

The descriptive statistics in this study include the minimum and maximum values, mean, and standard deviation for the variables, namely accounting knowledge, understanding of e-commerce, network relationships, and business performance. The results of the descriptive statistical tests are presented in Table 3.

Table 3. Descriptive statistics

| Variables | Minimum | Maximum | Mean | Std. Dev. |
|----------------------|---------|---------|------|------------|
| Accounting Knowledge | 1 | 5 | 2,35 | 0,88280138 |
| E-Commerce | 1 | 4,9 | 2,10 | 0,72374232 |
| Network Relationship | 1 | 5 | 2,08 | 0,70270442 |
| MSME Performance | 1,3 | 5 | 2,57 | 0,63377178 |

Source: Processed data (2023)

Validity and reliability

The validity test aimed to assess whether the questionnaire employed for measuring a variable was indeed valid. A questionnaire is considered valid if its items effectively capture and measure the intended constructs. The results of the validity test in this study can be summarized as follows:

Table 4. Validity test results

| Variables | Indicators | Item | R | Conclusion |
|----------------------|----------------------------|------|-------|------------|
| Accounting Knowledge | Declarative Knowledge (DK) | DK1 | 0,699 | Valid |
| | | DK2 | 0,928 | Valid |
| | | DK3 | 0,972 | Valid |
| | | DK4 | 0,838 | Valid |
| | | DK5 | 0,604 | Valid |
| | | DK6 | 0,962 | Valid |
| | | DK7 | 0,921 | Valid |
| | | DK8 | 0,949 | Valid |
| | | DK9 | 0,957 | Valid |
| | | DK10 | 0,917 | Valid |
| | | DK11 | 0,935 | Valid |
| | Procedural Knowledge (PK) | PK1 | 0,805 | Valid |
| | | PK2 | 0,946 | Valid |
| | | PK3 | 0,951 | Valid |
| | | PK4 | 0,910 | Valid |
| | | PK5 | 0,886 | Valid |
| | | PK6 | 0,875 | Valid |
| | | PK7 | 0,910 | Valid |
| | | PK8 | 0,930 | Valid |
| E-Commerce | Marketing (M) | M1 | 0,858 | Valid |
| | | M2 | 0,923 | Valid |
| | | M3 | 0,904 | Valid |

| Variables | Indicators | Item | R | Conclusion |
|----------------------|---|-------|-------|------------|
| | Sales (S) | S1 | 0,906 | Valid |
| | | S2 | 0,905 | Valid |
| | Service (SERV) | SERV1 | 0,901 | Valid |
| | | SERV2 | 0,881 | Valid |
| | | SERV3 | 0,905 | Valid |
| | Payment (P) | P1 | 0,884 | Valid |
| | | P2 | 0,922 | Valid |
| | Managerial Function (MF) | MF1 | 0,911 | Valid |
| | | MF2 | 0,905 | Valid |
| | | MF3 | 0,952 | Valid |
| Network Relationship | Long-term Network Relationship (LNR) | LNR1 | 0,795 | Valid |
| | | LNR2 | 0,834 | Valid |
| | | LNR3 | 0,755 | Valid |
| | Project Type Network Relationship (PNR) | PNR1 | 0,882 | Valid |
| | | PNR2 | 0,908 | Valid |
| | Short-term Network Relationship (SNR) | SNR1 | 0,832 | Valid |
| | | SNR2 | 0,743 | Valid |
| | | SNR3 | 0,817 | Valid |
| | Team Type Network Relationship (TNR) | TNR1 | 0,814 | Valid |
| | | TNR2 | 0,891 | Valid |
| | | TNR3 | 0,892 | Valid |
| Performance | Revenue Growth (RG) | RG1 | 0,678 | Valid |
| | | RG2 | 0,692 | Valid |
| | Capital (Equity) Growth (CG) | CG1 | 0,533 | Valid |
| | | CG2 | 0,636 | Valid |
| | Labor Growth (LG) | LG1 | 0,652 | Valid |
| | | LG2 | 0,725 | Valid |
| | Market Share Growth (MSG) | MSG1 | 0,785 | Valid |
| | | MSG2 | 0,816 | Valid |
| | Profit Growth (PG) | PG1 | 0,833 | Valid |
| | | PG2 | 0,216 | Invalid |

Source: Processed data (2023)

Based on the results of the validity test, it can be concluded that there is one question item that is not valid, namely the business performance variable (PG2). This is because the calculated R-value is 0.216, which is less than the critical R-table value of 0.361. Consequently, invalid questions were excluded from further analysis. As for the question items related to the variables of accounting knowledge, understanding of e-commerce, and network relationships, all questions are considered valid because they have R-values greater than the critical R-table value of 0.361.

Meanwhile, reliability tests were conducted to measure the consistency of respondents' answers to questions given over time. The reliability test was carried out using Cronbach's Alpha. The results of the reliability test in this study indicate that the Accounting Knowledge variable has a Cronbach's Alpha of 0.984, E-commerce understanding of 0.981, Network Relationship of 0.955, and business performance of 0.848. Based on these results, it can be concluded that all variables exhibit a high level of reliability.

Classical assumption tests were conducted to ensure that the research model has met the assumptions underlying the regression. The classical assumption tests conducted in this study include the normality test, multicollinearity test, and heteroscedasticity test. The normality test of the data was performed using the Kolmogorov-Smirnov (K-S) statistical test. Based on the results of the normality test, a significance value of 0.090 was obtained, which is greater than

0.05. Therefore, it can be concluded that the residuals are normally distributed. The multicollinearity test was conducted to assess the correlation between independent variables. A good regression model should not exhibit any significant correlation between independent variables. The results of the multicollinearity test are interpreted based on the tolerance value and Variance Inflation Factor (VIF). If the tolerance value is greater than 0.05 and the VIF is less than 10, then the independent variables do not exhibit multicollinearity.

Based on the test results, the accounting knowledge variable has a tolerance value of 0.771 and a VIF of 1.297, understanding of e-commerce produces a tolerance value of 0.273 and a VIF of 3.663, and network relationships have a tolerance value of 0.277 and a VIF of 3.606. These results indicate that there is no multicollinearity among the independent variables.

A heteroscedasticity test was conducted to assess the variance inequality from one observation's residual to another in the regression model. When the residual variance remains consistent from one observation to another, it is referred to as homoscedasticity. The results of the heteroscedasticity test using the Glejser test show that the Accounting Knowledge variable has a significance value of 0.413, E-Commerce Understanding has a value of 0.210, and Network Relationships has a value of 0.192. In all cases, the significance levels are above 0.05, leading to the conclusion that there are no signs of heteroscedasticity.

Regression analysis

Multiple regression analysis was conducted to assess the influence of the independent variables on the dependent variable, specifically examining the impact of accounting knowledge, understanding of e-commerce, and network relationships on MSMEs' performance. The results of this analysis can be summarized as follows:

Table 5. Regression analysis

| Variables | β | t | Sig. |
|---|-----------|---------|-------|
| Accounting Knowledge | 0,068 | 2,141** | 0,035 |
| E-commerce | 0,255 | 2,355** | 0,021 |
| Network Relationship | 0,236 | 2,049** | 0,043 |
| (Constant) | 11,166 | 6,798 | 0,000 |
| F = 29,984*** | 29,984*** | | |
| R ² = 0,494; Adjusted R ² = 0,478 | | | |

** sig. < 0,05; *** sig. < 0,01

Source: Processed data (2023)

Based on the results of the t-tests, it is evident that the independent variables have a significant positive influence on the performance of Micro, Small, and Medium Enterprises (MSMEs). Firstly, accounting knowledge exhibits a notable effect on MSME performance ($\beta = 0.068$; $t = 2.141$; $p = 0.035$), thus confirming the validity of Hypothesis 1 (H1). Secondly, the understanding of e-commerce demonstrates a significant positive impact on MSMEs' performance ($\beta = 0.255$; $t = 2.355$; $p = 0.021$), providing support for Hypothesis 2 (H2). Thirdly, network relationships are found to have a significant positive effect on MSME performance ($\beta = 0.236$; $t = 2.049$; $p = 0.043$), thereby affirming Hypothesis 3 (H3). These results collectively indicate that these independent variables are indeed influential factors contributing positively to the performance of MSMEs.

Discussion

The effect of accounting knowledge on MSMEs performance

Performance is the result of work achieved by individuals or organizations in carrying out assigned tasks, relying on the skills, experience, knowledge, and capabilities they possess

(Deliana et al., 2020). In the context of Micro, Small, and Medium Enterprises (MSMEs), performance encompasses their ability to adapt to the dynamic business environment and changing market needs, including factors such as customers, competitors, and other forces that can alter the way a business operates (Rekarti & Doktoralina, 2017). MSME performance is typically reflected in several key indicators, including sales growth, capital growth, asset growth, labor growth, market growth, and profit growth rates. Additionally, Rita & Thren (2019) proposed a comprehensive three-dimensional model of MSME performance, consisting of financial performance, entrepreneurial performance, and market performance. Financial performance is evaluated using metrics such as Return on Asset (ROA), Return on Sales (ROS), and sales growth. Market performance is assessed through indicators like customer satisfaction, customer growth, and market access growth. Entrepreneurial performance, on the other hand, is measured by the company's success in achieving its goals, entrepreneur satisfaction with the generated profits, employee welfare, and overall employee growth.

The findings of this study offer compelling evidence that accounting knowledge significantly and positively influences the performance of MSMEs. Accounting knowledge encompasses the accurate and systematic recording, grouping, and summarization of economic events to facilitate informed decision-making. The level of accounting knowledge possessed by MSME owners or managers plays a crucial role in financial management practices. When MSME owners possess strong accounting knowledge, they can better understand and manage their company's financial information, resulting in improved business performance. These findings align with previous research conducted by Setiawati et al. (2021) and Syabila et al. (2021), which also demonstrate the positive impact of accounting knowledge on MSME performance.

The effect of e-commerce on MSMEs performance

This study also provides compelling evidence that a profound understanding of e-commerce significantly influences the performance of MSMEs. E-commerce offers several advantages for businesses, including the potential to create additional value, introduce new services, explore new market shares, and adopt innovative business models. Furthermore, it enables businesses to expand their operations and compete effectively in the global marketplace. The adoption of e-commerce practices can lead to improved performance by boosting various aspects, such as sales growth, profitability, asset returns, customer satisfaction, overall financial performance, customer loyalty, and employee well-being. As a result, when MSMEs successfully leverage e-commerce, their overall performance tends to excel. These findings are consistent with prior research conducted by Sarastyarini & Yadnyana (2018) and Setiawati et al. (2021), which also highlight the positive impact of e-commerce understanding on MSME performance.

The effect of network relationships on MSMEs performance

This study also provides empirical evidence of the significant impact of network relationship variables on SME performance. In today's globalized and competitive business landscape, the establishment and maintenance of robust interpersonal relationships among entrepreneurs have become increasingly vital. These networks facilitate heightened interactions between partners, representing complementary resources for accessing knowledge and technology. Moreover, they serve to compensate for a company's weaknesses, reduce transaction costs and risks, and facilitate the exchange of valuable knowledge and skills. When all of these advantages are realized, they collectively contribute to the overall improvement in a company's performance. These findings align with previous research conducted by Lin & Lin (2015) and Huda & Syamsinirwani (2019), which similarly demonstrate the positive and significant impact of network relationships on SME performance.

CONCLUSION

This study offers empirical evidence that the performance of MSMEs is significantly influenced by various factors, including their understanding of the accounting system, proficiency in e-commerce, and the strength of their network relationships. To enhance the performance of MSMEs, business actors within this sector should prioritize improving their understanding of accounting principles and consider utilizing accounting software tailored for MSMEs. Additionally, the adoption of e-commerce tools and platforms for marketing, payments, and business management processes can significantly benefit MSMEs. Furthermore, the establishment and nurturing of robust business networks are crucial for optimizing the performance of MSMEs.

The implications of this research are multi-faceted. MSME business actors are encouraged to continually enhance their skills and capabilities in accounting, e-commerce, and networking. In this regard, government agencies responsible for addressing MSME-related issues can play a pivotal role by providing training in accounting and e-commerce, as well as developing affordable and user-friendly accounting applications tailored for MSMEs.

Future research endeavors aimed at improving our understanding of MSME performance may consider expanding the sample size, incorporating interview data, and introducing additional relevant variables, such as government policies, tax incentives, and access to SME loans. Furthermore, there is potential for investigating how MSMEs adapt to emerging technologies and navigate the challenges of the digital transformation era while remaining competitive and resilient.

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