

ENHANCING MANAGERIAL DECISIONS: THE ROLE OF ACCOUNTING PRACTICES AND E-COMMERCE IN MALANG'S MSMEs

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Abstract

Background: The ability of business actors to make decisions significantly affects the success of their business in the future. Most MSMEs believe that their business activities can continue to operate without the application of accounting. However, having accounting information is very useful for business actors in managing to formulate various decisions in each operational activity. In this digital era, the ability of business actors to follow market trends and utilize digital technologies such as e-commerce has a significant impact on the future success of MSMEs.

Objective: This study aims to investigate the influence of accounting application on managerial decision-making and the application of e-commerce on managerial decision-making among MSMEs in Malang City, with a total of 29,058 MSMEs in Malang City.

Research Method: The research method used is quantitative research, data collection using questionnaires, and the sample size is 40 respondents. The sampling method used is purposive sampling and the Roscoe method was used to determine the sample size.

Research Results: The research results based on the t-test show that the application of accounting has a positive influence on managerial decision-making among MSMEs in Malang City and the use of e-commerce has a positive influence on managerial decision-making among MSMEs in Malang City. The research results based on the F-test indicate that the application of accounting and the use of e-commerce have an influence on managerial decision-making among MSMEs in Malang City.

Originality/Novelty of Research: This research is comprehensive examination of the synergistic impact of both accounting practices and e-commerce utilization on managerial decision-making within the context of MSMEs in Malang.

Keywords: *Accounting, E-Commerce, Decision-making, MSMEs.*

Introduction

Micro, Small, and Medium Enterprises (MSMEs) play a very significant role in Indonesia's economy. However, in conducting their operational activities, they still face several challenges that affect their business success. Based on Law No. 20 of 2008 concerning Micro, Small, and Medium Enterprises (MSMEs), the definitions are as follows: Micro enterprises are productive businesses owned by individuals or individual business entities with a net worth of up to Rp. 50,000,000 (fifty million rupiahs), excluding land and buildings for business premises. Annual sales are a maximum of Rp. 300,000,000 (three hundred million rupiahs). Small enterprises are productive economic businesses that stand alone, conducted by

individuals or business entities that are not subsidiaries or branches of medium or large enterprises. Their net worth is more than Rp. 50,000,000 (fifty million rupiahs) up to a maximum of Rp. 500,000,000 (five hundred million rupiahs), excluding land and buildings for business premises. Annual sales are more than Rp. 300,000,000 (three hundred million rupiahs) up to a maximum of Rp. 2,500,000,000 (two billion five hundred million rupiahs). Medium enterprises are productive economic businesses that stand alone, conducted by individuals or business entities that are not subsidiaries or branches of small or large enterprises. Their net worth is more than Rp. 500,000,000 (five hundred million rupiahs) up to a maximum of Rp. 10,000,000,000 (ten billion rupiahs), excluding land and buildings for business premises. Annual sales are more than Rp. 2,500,000,000 (two billion five hundred million rupiahs) up to a maximum of Rp. 50,000,000,000 (fifty billion rupiahs).

Accurate and fast managerial decision making is essential for the sustainability and growth of MSMEs. Accounting applications and e-commerce implementation provide significant support in the decision-making process. Accounting applications help MSMEs in preparing financial reports automatically, accurately, and in real-time, which is essential for in-depth financial analysis. With accurate data, MSME managers can make decisions based on the right information regarding cash flow, profitability, and overall financial performance (Indrawan, 2021). In addition, the implementation of e-commerce allows MSMEs to reach a wider market without geographical limitations, increasing sales and revenue (Pramana et al., 2023). E-commerce also provides valuable customer data, such as purchasing preferences and market trends, which can be used to adjust marketing and product strategies (Mangoting et al., 2023). With the combination of accounting and e-commerce applications, MSMEs can improve operational efficiency, optimize business strategies, and be responsive to market changes, thereby increasing competitiveness and sustainable growth.

The implementation of accounting and the use of e-commerce are common issues encountered by MSMEs. According to Pinasti (2007), small business entrepreneurs lack accounting knowledge, and many of them do not understand the importance of record-keeping and bookkeeping for the sustainability of their business. The majority of MSMEs believe that their business operations can continue normally even without financial reports. Meanwhile, according to Ikhsan, M., Supriyanto, A., & Farida (2008) accounting information is essential for business actors in management to formulate various decisions in every operational activity.

According to (Septiawati, 2017) the ability of business actors to make decisions greatly influences the success of their business in the future. In the current era of globalization, the use of information technology, such as e-commerce, has become a necessary skill for all business actors. The use of e-commerce information technology can help to develop their business (Christian, 2013). Because, with e-

commerce, entrepreneurs can introduce their business to a wide audience without being limited by geographical location (Parveen, Farzana, Jaafar, Ismawati & Ainin, 2016). This is because websites are information media that can be accessed from all over the world or any country as long as the internet network is available (Wahyuni, Tri & Diana, 2020).

According to data from BPS (2024), several MSMEs in Indonesia face a number of challenges that can hinder them from achieving their goals. The table of challenges hindering MSMEs in achieving goals is below:

Table 1. Challenges Hindering MSMEs in Achieving Goals

Challenges Hindering MSMEs in Achieving Goals	Percentage
Marketing of Products	70,2%
Difficulty in Accessing Capital	51,2%
Difficulty in Meeting Raw Material Needs	46,3%
Difficulty in Adopting Digital Technology	30%

Source : Central Agency of Statistics, 2024

From the table above, it can be interpreted that the majority of MSMEs face obstacles in marketing their products. This would not happen if an MSME practiced good operational management in its activities. The high percentage demonstrates that management has a very significant influence and urgency in the operational activities of an MSME.

The implementation of good accounting practices and the optimal use of e-commerce will significantly impact the quality of managerial decisions in an MSME. With the application of accounting, decision-making becomes highly relevant because accountants provide accurate information about the financial position of the MSME, including income, expenses, and financial performance (Haryanto, 2021). Thus, MSMEs can make better decisions regarding the operational management of the company. The optimal use of e-commerce can facilitate business actors in making quality decisions regarding business service evaluations, analyzing market trends, and expanding market reach.

Based on Contingency Theory (Fiedler, 1967), contingent factors such as technology, culture, and environment can impact evaluation as a basis for decision-making in an organization. Although various studies have shown that the use of accounting and e-commerce applications has a positive impact on managerial decision-making in MSMEs, there are several research gaps that still need to be explored. For example, Wijaya (2020), Nugroho (2021) and Haryanto (2023), showed that accounting applications can improve the accuracy and speed of decision-making, while studies by Dunakhir & Rijal (2018), Setiawan and Pratama (2021) and (Syaharani & Mayangsari, 2022) revealed that e-commerce facilitates market expansion and business responsiveness. However, most existing studies tend to focus on individual aspects of these technologies, without exploring the potential interactions and synergies between accounting and e-

commerce applications in supporting decision-making. In addition, the geographic context and specific industrial sectors of MSMEs are often overlooked, even though this can affect the effectiveness of technology implementation (Hertiningtyas & Yustina, 2021). Previous studies have generally focused more on the immediate benefits of this technology, such as increased efficiency and data access, while the long-term impact on business strategy and sustainable growth of MSMEs has received less attention (Pratiwi, 2023). Finally, there are limitations in the literature on how cultural factors and internal capacities of MSMEs moderate the influence of accounting and e-commerce applications on managerial decision making. Thus, further research is needed to explore this area to provide a more comprehensive and contextual understanding of the influence of technology on decision making in MSMEs. This implies that the relationship between accounting implementation and the use of e-commerce can also influence the decision-making process of an organization or company (Syaharani & Mayangsari, 2022)

Therefore, the researcher is interested in conducting a study titled “The Influence of Accounting Implementation and E-Commerce Usage on Managerial Decision-Making in Micro, Small, and Medium Enterprises (MSMEs) in Malang City.” This study aims to describe the relationships among the variables being studied, namely accounting implementation, e-commerce usage, and managerial decision-making.

Literature Review

Management Accounting

Management accounting is the process that involves identifying, measuring, accumulating, preparing, analyzing, interpreting, and communicating economic events used by management for planning, control, decision-making, and performance evaluation within an organization (Siregar, Baldrice & Satripto, 2013). According to Atkinson et al., (2022) management accounting is the describes how management accounting focuses not only on the preparation of financial statements, but also on the collection, analysis, and use of data to support operational and strategic decisions within an organization. Concepts such as activity-based costing, variance analysis, and strategic budgeting are discussed in depth, showing how these tools can be used to improve a company's efficiency, effectiveness, and profitability. Emphasis is placed on integrating accounting information with business strategy to ensure that decisions made support the organization's long-term goals, as well as adapting to changes in the dynamic business environment.

Decision-Making

Decision-making is a complex process that involves identifying, evaluating, and selecting alternatives to achieve specific goals or resolve the issues faced. According to Steers, decision-making in

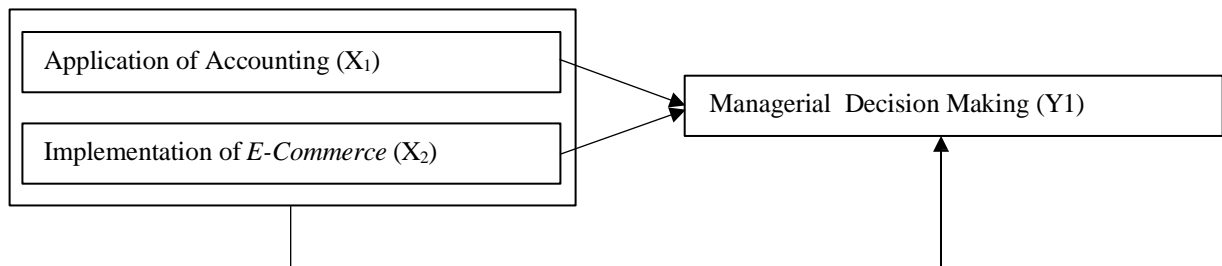
the organizational context involves the selection from various available options. It is a process that utilizes specific criteria to choose a solution expected to yield future results. Maulia, A. S., Putri, A. A., Amalia, I., Ikkiu, M., & Nadhifah (2017) adds that decision-making involves selecting one option from several alternatives using efficient methods suitable for the existing situational context.

Thus, it can be concluded that decision-making is an effort to identify the alternative that best aligns with the values and goals of an individual or organization in resolving the issues faced. This process requires extensive skills, ranging from information gathering, identifying alternatives, selecting decisions, to managing risks and consequences of the decisions made. Factors such as environment, knowledge, and situational context influence the decision-making process.

Decisions made can significantly impact organizational performance. Proper decision-making can lead the organization towards positive changes, while less accurate decisions can have adverse consequences for the organization and its administration. Therefore, decision-making is a crucial aspect of organizational management that requires careful attention and thorough study.

Conceptual Framework and Hypotheses

Based on the previous description, the following presents the conceptual framework and hypotheses used in this research.



Picture 1. Conceptual Framework

Accounting Principles

According to Kieso, D. E., Weygandt, J. J., & Warfield, T (2020), accounting is the process of identifying, measuring, and reporting economic information to enable accurate decision-making by its users. This definition encompasses various activities related to recording financial transactions, preparing financial statements, and analyzing and interpreting financial information. Accounting theory, as a conceptual foundation, plays a crucial role in establishing a consistent framework for accounting practices. One critical component of accounting theory is the basic assumptions used in preparing financial statements. These assumptions include the entity assumption, going concern assumption, and accrual basis.

The entity assumption states that a business entity is considered separate from its owners, so financial statements only reflect the financial condition and performance of that entity. The going concern assumption posits that a company will continue to operate indefinitely and has no intention of liquidating its business in the near future. The accrual basis assumption is that transactions and economic events are recognized when they occur, not when cash is received or paid.

In addition to assumptions, accounting theory also includes fundamental principles such as historical cost principle, revenue recognition principle, and matching principle (Ladewi et al., 2023). The historical cost principle states that assets should be recorded at their initial acquisition cost. The revenue recognition principle governs that revenue is recognized when it is realized or realizable and earned. The matching principle dictates that expenses should be recognized in the same period as the revenues they help to generate. By understanding these accounting concepts and principles, financial statement users can better comprehend and evaluate financial reports.

Application of Accounting

The influence of accounting applications on managerial decision-making can be analyzed through several key variables. First, the accuracy of accounting data produced by accounting applications is an important variable that can affect the quality of decision-making. The use of accounting applications in MSMEs has a significant impact on managerial decision making, which can be explained through the lens of Contingency Theory (Fiedler, 1967). This theory states that the effectiveness of an action or strategy depends on the situational context in which the organization operates. In the context of MSMEs, accounting applications provide the flexibility and adaptability needed to deal with various dynamic financial situations. A good accounting application will produce accurate and relevant data, so that managers can make more precise decisions based on the available information (Santoso, 2019). This is in line with research conducted by Susanto (2020) which found that the accuracy of accounting data is very important in supporting strategic decision-making in companies. Second, the speed of data access and processing is also a significant variable. An efficient accounting application allows managers to access and process data in real-time, so that decisions can be made faster and more responsive to changes in business conditions (Wijaya, 2020). Research by Haryanto (2021) also shows that the speed of data processing through accounting applications increases the speed of managerial decision-making. Third, the ease of use and integration of accounting applications with other systems in the organization can affect the effectiveness of decision-making. Applications that are user-friendly and easy to integrate will increase productivity and collaboration between departments, so that decisions can be made more comprehensively and coordinated (Nugroho, 2021). This finding is supported by Putri's (2022) which states that the integration of accounting

applications with other systems in an organization improves coordination between departments. Thus, accurate, fast, and easy-to-use accounting applications can have a positive impact on managerial decision making, increase operational efficiency, and support the achievement of the organization's strategic goals (Siregar, 2022).

H1: The Accounting applications influence managerial decision making.

The Implementation of E-Commerce

E-commerce, or electronic commerce, refers to the access to digital technology based on internet usage applied in business processes involving transactions between consumers and producers (Maulana et al., 2015). E-commerce facilitates producers in marketing their products to a broader market while assisting consumers by providing more choices, enabling them to make better decisions. The implementation of e-commerce has brought about numerous changes in the world of commerce, transforming the buying and selling processes from traditional face-to-face interactions between sellers and buyers to online transactions such as those on platforms like Shopee, Lazada, Grab, Gojek, Blibli, Bukalapak, and many others (Yanto et al., 2023).

E-commerce implementation can have a significant impact on managerial decision-making by increasing data accessibility and operational efficiency, which can be reviewed through the lens of Contingency Theory (Fiedler, 1967). This theory states that the effectiveness of an action is highly dependent on its suitability to the specific conditions of the organization. E-commerce allows SMEs to expand market reach, access real-time sales data, and collect faster and more accurate customer feedback. This gives managers direct access to relevant and up-to-date information, so they can make better and faster decisions regarding marketing, inventory, and pricing strategies. Research by Dunakhir & Rijal (2018) shows that e-commerce adoption enables managers to obtain faster and more accurate market information, which supports better decision-making in a business context Adiningrat et al. (2023). In addition, research by Setiawan and Pratama (2021) found that e-commerce contributes to optimizing the decision-making process by providing in-depth and real-time data analysis, which helps managers respond to market changes more effectively Syaharani & Mayangsari (2022) Thus, e-commerce implementation not only improves the quality of information available to managers but also increases the efficiency and timeliness of decision-making. Sihombing & Sulistyono (2021)

H2: The implementation of e-commerce influences managerial decision making.

Research Method

The type of research used in this study is quantitative research. According to Sujarweni (2014), quantitative research is research that produces findings obtained through statistical methods or procedures. In this study, quantitative methods are used to examine the influence of accounting application and e-commerce usage on decision-making in SMEs in Malang City.

According to Riadi (2016) data sources are anything that can provide information about a particular dataset. In this research, the data used consists of primary data and secondary data. Primary data sources are the main data obtained by collecting and processing questionnaire results from respondents. Meanwhile, secondary data sources are supporting data used to analyze primary data, such as journals, articles, and other relevant writings on the research topic. The population in research refers to the area that the researcher intends to study. According to Sugiyono (2011:80), the population is a generalization area consisting of objects/subjects with specific qualities and characteristics defined by the researcher for study and subsequent conclusions. The target population is the population that is actually used as the data source. The target population in this study is SMEs in Malang City, totaling 29,058 (BPS, 2023).

Table 2. The target population in Malang City

Districts in Malang City	The number of Micro, Small, and Medium Enterprises (MSMEs) by District in Malang City (Units)
	In 2023
Kedungkandang	4.402
Sukun	6.011
Klojen	3.850
Blimbing	5.347
Lowokwaru	9.448
Malang City	29.058

Source: The Department of Cooperatives, Industry, and Trade of Malang City (2024)

The sampling technique used in this study is purposive sampling. According to Sugiyono (2017), purposive sampling is a technique for selecting data sources based on specific considerations. Purposive sampling selects a group of subjects based on certain characteristics that are deemed relevant to the characteristics of the population being studied. This research uses Roscoe's method to determine the sample size to be tested. According to Roscoe (1975) the sample size should ideally range from thirty to five hundred elements. The researcher selected a sample of 40 SMEs in Malang City.

Primary data collection in this study uses the questionnaire method. According to Sugiyono (2017), a questionnaire is a data collection method where respondents are given a series of questions or statements

to answer in writing. There are two types of questionnaires: open-ended and closed-ended. Open-ended questionnaires ask respondents to write their answers narratively about a topic, while closed-ended questionnaires ask respondents to choose answers from provided options or provide brief responses. In this study, a closed-ended questionnaire was used, where respondents only select answers provided in the questionnaire.

A research instrument is a tool or method used by researchers to collect the data or information needed for their study. Research instruments assist in the process of data collection, measurement, and analysis. In conducting this research, the researcher used a questionnaire as a medium for collecting quantitative data with a series of questions structured based on variables and indicators outlined in the table below:

Table 3. Research Instrument

No	Variable	Definitions	Indicators	Measurement
1	Application of Accounting (X1) (Diah Ayu Susanti, Zuliyati, Khoirotnun Nida Laili, 2023)	The implementation of accounting is the application of accounting theories within an entity. This includes recording cash expenditures and receipts, measuring asset values, and preparing financial statements.	1. Accounting records 2. Regulations and policies 3. Financial statement	Likert
2	Implementation of E-commerce (X2) (Prasetyo & Farida, 2022)	The usage of e-commerce refers to the utilization of e-commerce technology in operational business activities such as selling, buying, and marketing products.	1. Sales 2. Marketing of Goods and Services 3. Management	Likert
3	Managerial Decision-Making (Y)	Managerial decision-making is an activity in business operations to determine decisions regarding management, such as what actions the company will take to solve a problem or achieve established goals.	1. Strategic decisions 2. Long-term decisions 3. Evaluation	Likert

Likert Scale is a tool used to assess attitudes, opinions, and perceptions of individuals or groups towards social phenomena. In this study, a Likert scale with a score range from 1 to 5 is used, allowing for precise determination of respondents' answers, whether they lean towards answers that are always or never.

Table 4. Likert Scale

Indicator	Score
Never (TP)	1
Rarely (J)	2
Sometimes (KK)	3
Often (SR)	4
Always(SL)	5

Data Analysis Technique

This study uses several methods to analyze the data. First, the reliability test is carried out using the Cronbach's Alpha method to ensure the consistency of the measuring instrument, with a value > 0.7 indicating reliability. Furthermore, the validity test is carried out through construct validity using confirmatory factor analysis (CFA) and content validity involving experts. Classical assumption tests include normality tests (Kolmogorov-Smirnov or Shapiro-Wilk), multicollinearity tests (VIF and Tolerance), heteroscedasticity tests (Glejser test or plot graph), and autocorrelation tests (Durbin-Watson). The analysis is continued with multiple linear regression tests to analyze the effect of independent variables on dependent variables with the xxx model. and emitting models with R^2 , Adjusted R^2 , and F-statistics. Hypothesis testing is carried out with a partial t-test for each independent variable and a simultaneous F-test for all independent variables, where a p-value < 0.05 indicates a significant effect. The results of this analysis are used to draw conclusions regarding the influence of accounting applications and Accounting and E-Commerce Applications on managerial decision making.

Results and Discussion

Research Results

The results of the study to be presented include respondent demographics, data quality tests, and data analysis. Data quality tests encompass validity and reliability tests, while research data analysis includes classical assumption tests, multiple linear regression tests, and hypothesis testing.

Questionnaires were distributed to 40 SMEs in Malang City for data collection. Due to varying respondent criteria, classification was necessary for this study. Characteristics considered include SME location, industry sector, and revenue.

Based on the validity test results using SPSS software, the following output was obtained.

Table 5. Validity Test Result

Validity Test			
Variable	R calculated	R table	Description
Y.1	.829**	0.3120	Valid
Y.2	.862**	0.3120	Valid
Y.3	.877**	0.3120	Valid
Y.4	.821**	0.3120	Valid
Y.5	.854**	0.3120	Valid
Y.6	.792**	0.3120	Valid
Y.7	.767**	0.3120	Valid
X1.1	.891**	0.3120	Valid
X1.2	.828**	0.3120	Valid
X1.3	.828**	0.3120	Valid
X1.4	.779**	0.3120	Valid
X1.5	.860**	0.3120	Valid
X2.1	.926**	0.3120	Valid
X2.2	.834**	0.3120	Valid
X2.3	.838**	0.3120	Valid
X2.4	.810**	0.3120	Valid
X2.5	.741**	0.3120	Valid

Source: Research Data

From the validity test table above, it can be seen that each question in Accounting Implementation (X1), E-Commerce Usage (X2), and Managerial Decision Making (Y) has an RRR value greater than the RRR table value. Therefore, it can be said that all variables used in this study are considered valid.

Reliability Test

Based on the reliability test results using SPSS software, the following output was obtained.

Table 6. Reliability Test

Reliability Test			
Variable	Cronbach Alpha	R calculated	Description
Managerial Decision Making	0.921	0.6	Reliabel
Application of Accounting	0.893	0.6	Reliabel
Implementation of E-Commerce	0.887	0.6	Reliabel

Source: Research Data

Reliability Test From the reliability test table above, it can be seen that the Cronbach's Alpha coefficient values for all variables have Cronbach's Alpha > the R table value. Therefore, it can be stated that all variables used in this study are considered reliable.

Classical Assumption Tests

The classical assumption test consists of normality, multicollinearity, and heteroscedasticity tests, which aim to ensure the validity of the regression model. The normality test aims to test whether the residual data from the regression model is normally distributed. In this study, the Kolomogrov Smirnov test was used with a significance value (Asymp. Sig.) of 0.254, indicating that the residual data is normally distributed and the normality assumption is met. The multicollinearity test is carried out by looking at the Variance Inflation Factor (VIF) and Tolerance values. All independent variables have VIF values below 10 and Tolerance above 0.1, indicating the absence of significant multicollinearity. This is important to ensure that each independent variable in the model makes a unique contribution and is not highly correlated with each other, which can cause distortion in the estimation of the regression coefficient. The heteroscedasticity test aims to check whether the error term variability of the regression model is constant or not. In this study, the Glejzer test was used and the significance value was greater than 0.05, indicating that the data is free from heteroscedasticity problems and the homoscedasticity assumption is met. Significant heteroscedasticity can cause inefficient model parameter estimates and invalid statistical tests. Thus, all classical assumptions are met, making the regression model valid and reliable for further analysis.

Multiple Linear Regression Test

In this study, multiple linear regression was used to determine the influence of accounting implementation and e-commerce usage on managerial decision-making. Based on the results of multiple linear regression, from these results, the multiple linear regression equation obtained is as follows:

$$Y = -1,150 + 0,770X1 + 0,681X2 + 0,05$$

Based on the regression coefficient values of the variables influencing managerial decision-making using a significance level (α) of 0.05, the interpretation is as follows the constant value (a) of -1.150 indicates that if the independent variables, namely accounting implementation (X1) and e-commerce usage (X2), are both zero, the magnitude of managerial decision-making (Y) is -1.150. This condition arises because the quality of managerial decisions made by SMEs will decline without the support of financial information obtained through accounting and the utilization of e-commerce technology. Therefore, to achieve effective managerial decision-making, the implementation of accounting practices and e-commerce usage should be enhanced. The regression coefficient for the accounting implementation variable is 0.770,

indicating a positive coefficient. Thus, it can be concluded that there is a positive relationship between accounting implementation (X1) and managerial decision-making (Y). An increase in the accounting implementation variable (X1) leads to a corresponding increase in managerial decision-making (Y). The regression coefficient for e-commerce usage variable is 0.681, also indicating a positive coefficient. Therefore, it can be inferred that there is a positive relationship between e-commerce usage (X2) and managerial decision-making (Y). An increase in the e-commerce usage variable (X2) results in an increase in managerial decision-making (Y).

Hypothesis Testing

t Test

Based on the results of the t test using SPSS software, the following output has been obtained:

Table.7. t-test

Model	Unstandarized Coefficients		Standarized Coefficients	T	Sig
	B	Std. Error	Beta		
Constant	-1.15	0.908		-1.266	0.214
Application of Accounting	0.77	0.128	0.524	6.002	0.01
Implementation of E-Commerce	0.681	0.125	0.475	5.438	0

Source: Research Data

In this study, the table at the level of significance (α) of 5% or 0.05 can be obtained using the formula $df = n-k-1$ ($df = 40-2-1 = 37$) with a significance level of 0.05. Here, n represents the number of respondent variables and k is the number of independent variables. Therefore, the table value is 2.026. Influence of accounting application on managerial decision-making Based on the above data, the computed t value is 6.002. This means the T value is greater than the critical t value ($6.002 > 2.026$) and the significance value is less than 0.05 ($0.000 < 0.05$), so H1 is accepted. From these test results, it can be concluded that there is an influence of accounting application on managerial decision-making in SMEs in Malang City. Influence of e-commerce usage on managerial decision-making Based on the table data above, the computed t value is 5.438. This indicates that the t value is greater than the critical T value ($5.438 > 2.026$) and the significance value is less than 0.05 ($0.000 < 0.05$), so H2 is accepted. From these test results, it can be concluded that there is an influence of e-commerce usage on managerial decision-making in SMEs in Malang City.

F-Tests

Based on the results of the F-test using SPSS software, the output obtained is as follows:

Table 8. Anova

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1540.56	2	770.280	563.922	0
Residual	50.54	37	1.3660		
Total	1591.1	39			

Source: Research Data

The calculated F-value obtained is 563.922, while the critical F-value at a significance level of $\alpha = 5\%$ (0.05) is 3.25, obtained from the F-table with degrees of freedom ($df_1 = k-1$) = 3-1 = 2 and ($df_2 = N-k$) = (40-3) = 37.

Influence of accounting application and e-commerce usage on managerial decision-making Based on the data above, the calculated F-value is 563.922. This means the F-value is greater than the critical F-value ($563.922 > 3.25$), and the significance level is less than 0.05 ($0.000 < 0.05$), so H_a is accepted. From these test results, it can be concluded that there is an influence of accounting application and e-commerce usage on managerial decision-making in SMEs in Malang City.

Coefficient of Determination Test (R Square)

Based on the coefficient of determination (R Square) test results using SPSS software, the following output was obtained:

Table 9. R Square

Model	R	R-Square	Adjusted R-Square	Std. Error
1	0.984	0.968	0.967	1.169

Source: Research Data

Based on the SPSS results, it can be seen that the coefficient of determination (R Square) is 0.968 or 96.8%. Therefore, the independent variables can explain 96.8% of the dependent variable, while the remaining 3.2% is explained by other factors not included in the model.

Discussion

The Influence of Accounting Implementation on Managerial Decision Making in SMEs in Malang City

The result of the first hypothesis testing indicates that accounting implementation has an influence on managerial decision making in SMEs in Malang City. This is evidenced by a calculated T value of 6.002, which is greater than the critical T value of 2.026, with a significance level of 0.000, smaller than 0.05 ($0.000 < 0.05$). This implies that accounting implementation has a positive influence on managerial decision making in SMEs in Malang.

The results of the study indicate that the application of accounting has an effect on managerial decision making in MSMEs in Malang City. The results of the study support research from previous research conducted by Haryanto (2021), (Siregar, 2022) and Putri's (2022). This finding is in line with the Contingency Theory (Fiedler, 1967) which states that leadership effectiveness depends on the suitability between leadership style and situation. In the context of MSMEs, effective accounting applications can increase the availability of accurate and timely financial information for strategic decision making. According to contingency theory, when the existing leadership style is in accordance with the situation and information needs, managerial decisions will be more optimal. Accounting applications help organize financial information in a format that is easy to access and understand, which supports MSME managers in assessing various alternatives and making more appropriate decisions. In other words, accounting applications can increase the suitability between managerial style and business situation, in accordance with the principles of contingency theory, thus enabling more effective and efficient decision making in the MSME environment.

The Influence Implementation of E-Commerce on Managerial Decision Making in SMEs in Malang City

The result of the second hypothesis testing indicates that e-commerce usage has an influence on managerial decision making in SMEs in Malang City. This is evidenced by the T-test result showing a calculated T value of 5.438, which is greater than the critical T value of 2.026, with a significance level of 0.000, smaller than 0.05 ($0.000 < 0.05$). Therefore, the hypothesis can be accepted. This means that e-commerce usage significantly impacts managerial decision making in SMEs in Malang.

The results of the study indicate that the implementation of e-commerce has a positive effect on managerial decision making in MSMEs in Malang. The results of the study support research from Sihombing & Sulisty (2021), Adiningrat et al. (2023), and Syaharani & Mayangsari (2022). The implementation of e-commerce can significantly affect managerial decision making in MSMEs, as

explained by Fiedler's contingency theory (1967). This theory emphasizes that leadership effectiveness depends on the fit between leadership style and the situation at hand. In the context of MSMEs, e-commerce provides tools and platforms that allow direct access to market data, consumer trends, and competitive information in real time. This helps managers better assess the situation and make more informed and faster decisions. When managerial leadership style is in line with the capacity and data provided by e-commerce, the decision-making process becomes more informed and responsive to market dynamics. Thus, e-commerce improves the fit between managerial strategy and situational needs, which is in line with the principles of contingency theory, enabling MSMEs to make more effective decisions and better adapt to market changes.

Conclusion

This research investigated the influence of accounting implementation and e-commerce usage on managerial decision making in Micro, Small, and Medium Enterprises (MSMEs) in Malang City. The findings provide strong support for the proposed hypotheses. Firstly, the implementation of accounting practices was found to have a positive and significant impact on managerial decision making. This suggests that MSMEs with proper accounting systems are better equipped to make informed decisions. The positive coefficient indicates that stronger accounting practices are associated with improved decision-making capabilities. Secondly, the research also revealed a positive and significant influence of e-commerce usage on managerial decision making. This highlights the importance of e-commerce adoption for MSMEs. The positive coefficient suggests that businesses utilizing e-commerce platforms have an advantage in making sound managerial decisions. Finally, the combined effect of accounting implementation and e-commerce usage was found to be statistically significant in influencing managerial decision making. This implies that both factors play a complementary role. MSMEs that implement proper accounting practices and leverage e-commerce are likely to experience the strongest positive impact on their decision-making processes. In essence, this research underscores the critical role of both accounting practices and e-commerce adoption for MSMEs in Malang City. By implementing sound accounting systems and embracing e-commerce opportunities, MSMEs can enhance their decision-making capabilities, potentially leading to improved business performance.

Recommendations for MSMEs in Malang City include enhancing accurate and systematic accounting practices. With good financial records, MSMEs can gain a clear understanding of their financial condition, facilitating strategic decision making. Additionally, leveraging e-commerce platforms can open up broader market opportunities, enabling MSMEs to reach diverse consumers and significantly boost sales.

E-commerce usage also provides valuable sales data that can be analyzed to formulate more effective business strategies. Implementing robust accounting practices and utilizing e-commerce appropriately will facilitate decision making amid increasingly competitive markets. The findings of this research are expected to serve as a source or reference for further studies and be beneficial for future researchers.

Reference

- Adiningrat, Idra Wahyuni, Rustan, & Yuyu Ruhayu. (2023). MSME Performance: Financial Information System, Work Productivity, and E-commerce. *Journal of Consumer Sciences*, 8(2), 204–219. <https://doi.org/10.29244/jcs.8.2.204-219>
- Azuar Juliandi, I. dan S. M. (2014). *Metode Penelitian Bisnis*. UMSU Press.
- Christian, S. (2013). Penggalakan Entrepreneurship sebagai Langkah Awal untuk Peningkatan Kemandirian Perekonomian Indonesia. *Jurnal Entrepreneur Dan Entrepreneurship*.
- Dunakhir, S., & Rijal, A. (n.d.). *Analisis Efektivitas Sistem Informasi Akuntansi Pemberian Kredit Pada PT. Bank Rakyat Indonesia di Kota Makassar*. 0, 235–252.
- Fitrah, M. N., & Yuliati, Y. (2023). Pengaruh E-Commerce Dan Penggunaan Sistem Informasi Akuntansi Terhadap Efektivitas Kinerja Umkm Di Kota Malang. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (MEA)*, 7(2), 91–101. <https://doi.org/10.31955/mea.v7i2.2969>
- Haryanto, B. (2021). *Pengaruh Kecepatan Pengolahan Data Akuntansi terhadap Pengambilan Keputusan Manajerial*. *Jurnal Teknologi dan Informasi*, 9(3), 189-201.
- Ikhsan, M., Supriyanto, A., & Farida, N. (2008). Pengaruh Implementasi Sistem Akuntansi terhadap Pengambilan keputusan Manajemen pada Usaha Kecil Menengah (UKM). *Jurnal Manajemen Dan Kewirausahaan, Vol 9, No.*
- Indrawan, A. (2021). Peran Aplikasi Akuntansi dalam Meningkatkan Kinerja Keuangan UMKM. *Jurnal Akuntansi dan Keuangan*, 15(2), 120-135.
- Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2020). *Akuntansi Intermediate* (Edisi Kedu). Erlangga.
- Ladewi, Y., Afrida, A., & Fernanda, D. (2023). Faktor- Faktor Penentu Kualitas Informasi Akuntansi. *Jurnal Akuntansi Bisnis*, 16(1), 56–65. <https://doi.org/10.30813/jab.v16i1.3720>
- Mangoting, Y., Susanto, E., & Raharjo, S. (2023). Pengaruh E-commerce terhadap Pengambilan Keputusan Manajerial di UMKM. *Journal of Business and Management*, 21(1), 45-60.
- Maulia, A. S., Putri, A. A., Amalia, I., Ikkiu, M., & Nadhifah, R. F. (2017). *Proses Pengambilan Keputusan (Decision Making Process) untuk Memilih Universitas dan Program Studi: Studi Kasus pada Mahasiswi Fakultas Teknologi dan Desain (FTD) Universitas Pembangunan Jaya (UPJ)*.
- Nugroho, B. (2021). *Pengaruh Kemudahan Penggunaan Aplikasi Akuntansi terhadap Efektivitas Pengambilan Keputusan di Perusahaan Manufaktur*. *Jurnal Manajemen dan Akuntansi*, 14(2), 175-188.
- Parveen, Farzana, Jaafar, Noor Ismawati, & Ainin, S. (2016). Social media's impact on organizational performance and entrepreneurial orientation in organizations. *Management Decision*.
- Pinasti, M. (2007). Pengaruh penyelenggaraan dan penggunaan informasi akuntansi terhadap persepsi pengusaha kecil atas informasi akuntansi: suatu riset eksperimen. *Jurnal Riset Akuntansi Indonesia, Vol.10 No.*
- Pramana, D., Setiawan, H., & Utama, A. (2023). E-commerce dan Transformasi Digital pada UMKM: Dampak pada Keputusan Manajerial. *International Journal of Small Business and Entrepreneurship*, 12(3), 89-105.
- Prasetyo, E., & Farida, 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, D. (2022). *Integrasi Aplikasi Akuntansi dengan Sistem Organisasi dan Pengaruhnya terhadap Koordinasi Departemen*. *Jurnal Sistem Informasi*, 12(1), 121-133.
- Riadi, E. (2016). *Statistika Penelitian (Analisis Manual dan IBM SPSS)*. Andi.
- Roscoe. (1975). *Rules of Thumb for Determining Sample Size*.
- Septiawati, S. (n.d.). Pengaruh Dukungan Sosial dan Kepribadian Ekstraversi terhadap Minat Berwirausaha pada Mahasiswa. *Ecopsy*.
- Sihombing, M. J. S., & Sulisty, H. (2021). Pengaruh E-Commerce dan Penggunaan Sistem Informasi Akuntansi Terhadap Pengambilan Keputusan Berwirausaha. *Jurnal Sosial Sains*, 1(4), 309–321. <https://doi.org/10.59188/jurnalsosains.v1i4.78>
- Santoso, D. (2019). *Peran Akurasi Data Akuntansi dalam Meningkatkan Kualitas Pengambilan Keputusan Manajerial*. *Jurnal Akuntansi dan Keuangan*, 11(1), 34-47.
- Susanto, A. (2020). *Akurasi Data Akuntansi dan Dampaknya pada Pengambilan Keputusan Strategis*. *Jurnal Akuntansi Kontemporer*, 13(4), 67-80.
- Siregar, A. (2022). *Aplikasi Akuntansi dan Dampaknya terhadap Efisiensi Operasional Perusahaan*. *Jurnal Ekonomi dan Bisnis*, 15(3), 223-239.
- Siregar, Baldrice, dan Suropto, B. (2013). *Sistem Akuntansi Manajemen* (CV. & Bandung (Eds.)).
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Sujarweni, W. (2014). *Metodologi Penelitian*. Pustaka Baru.
- Sumakul, Anggreini Merry., H. M. L. M. M. (2018). Analisis Penerapan Target Costing Sebagai Sistem Pengendalian Biaya Produksi Pada CV. Verel Tri Putra Mandiri. *Jurnal Riset Akuntansi Going Concern*.
- Supriyono. (2002). *Akuntansi Biaya dan Akuntansi Manajemen* (F. Ekonomi & UGM (Eds.)).
- Syahrani, E. P., & Mayangsari, S. (2022). Pengaruh E-Commerce, Penggunaan Sistem Informasi Akuntansi, Ketersediaan Modal, Dan Dukungan Keluarga Dalam Pengambilan Keputusan Untuk Berwirausaha Pada Mahasiswa Akuntansi. *Jurnal Ekonomi Trisakti*, 2(2), 1189–1202. <https://doi.org/10.25105/jet.v2i2.14781>
- Wahyuni, Evita Tri, & Diana, N. (2020). E-Commerce dan Sistem Informasi Akuntansi Sebagai Faktor Pendorong Pengambilan Keputusan Mahasiswa Akuntansi untuk Berwirausaha. *Jurnal Ilmiah Riset Akuntansi*.
- Wijaya, R. (2020). *Efisiensi Pengolahan Data Akuntansi dalam Pengambilan Keputusan Manajerial*. *Jurnal Sistem Informasi*, 10(4), 98-112.
- Yanto, A., Faruqi, F., Rahmawati, A., Malang, N., History, A., Village, G., & Masyarakat, J. P. (2023). *Tax Counseling PP No . 23 of 2018 as support for SDGS 17 for UMKM Business Actors in Gunung Gangsir Village , Pasuruan Regency 547) Tax Counseling PP No . 23 of 2018 as support for SDGS 17 for UMKM Business Actors in Gunung Gangsir Village , Pasuruan Reg. 23, 546–553*.