THE INFLUENCE OF MANAGEMENT ACCOUNTING INFORMATION, PRODUCT INNOVATION, AND STRATEGIC MANAGEMENT ACCOUNTING ON MSME PERFORMANCE WITH COMPETITIVE ADVANTAGE AS AN INTERVENING VARIABLE

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Abstract

This study aims to analyze the influence of management accounting information, product innovation, and strategic management accounting on the performance of Micro, Small, and Medium Enterprises (MSMEs), with competitive advantage acting as an intervening variable. MSMEs play a significant role in supporting economic growth; however, they continue to face various challenges, including limited resources, increasingly intense business competition, and rapidly changing business environments. These conditions require MSME actors to effectively manage business information and strategies in order to improve their organizational performance. This research employs a quantitative approach using a survey method by distributing questionnaires to MSME actors who serve as the respondents of the study. The sampling technique applied in this research is purposive sampling, where respondents are selected based on specific criteria relevant to the objectives of the study. The collected data are analyzed using statistical analysis methods to examine the relationships among management accounting information, product innovation, strategic management accounting, competitive advantage, and MSME performance. The results of this study are expected to provide empirical evidence regarding the importance of utilizing management accounting information, developing product innovation, and implementing strategic management accounting in enhancing competitive advantage and improving MSME performance. Furthermore, this study is expected to contribute to the development of management accounting knowledge and serve as a reference for MSME practitioners in improving business performance in a sustainable manner.

Keywords: Management Accounting Information, Product Innovation, Strategic Management Accounting, Competitive Advantage, MSME Performance

INTRODUCTION

Information technology has advanced rapidly over the years, especially in Indonesia. Current technological developments play a crucial role in various sectors, including the business sector(Darmayanti et al., 2024) Micro, Small, and Medium Enterprises (MSMEs) play an important role in promoting economic growth, increasing employment opportunities, and strengthening the economic structure of a country. However, MSMEs often face various challenges such as limited resources, increasingly intense business competition, and rapidly changing business environments. These conditions require MSME actors to manage their businesses effectively in order to continuously improve their performance (Darmayanti et al., 2022). Several studies indicate that appropriate strategies, innovation, and the effective utilization of information systems can significantly enhance organizational performance. One important factor that can support the improvement of business performance is management accounting information.

Management accounting information refers to an information system that provides both financial and non-financial data used by management in planning, controlling, and making business decisions. Accurate and relevant information enables management to evaluate performance and determine appropriate strategies for managing business activities. Furthermore, the development of information technology has strengthened the role of accounting information systems in supporting business operations and managerial decision-making processes (Darmayanti et al., 2022)

In addition to management accounting information, product innovation is also an important factor in improving competitiveness and business performance. Product innovation refers to a company's ability to create or develop new products or improve the quality of existing products in order to provide added value to consumers. In a highly competitive business environment, companies are required to continuously innovate in order to sustain their business operations. Research by Ryandi (2023) indicates that product innovation can enhance the competitive advantage and marketing performance of MSMEs.

The implementation of strategic management accounting is another crucial factor in improving organizational performance. Henri (2021) suggests that management control systems and strategic information can support strategy formulation and enhance company performance. Furthermore, research by Ghasemi et al. (2022) demonstrates that innovation capability supported by appropriate strategies can increase competitive advantage and improve firm performance. Therefore, strategic management accounting can assist MSMEs in developing more competitive business strategies.

Competitive advantage also plays a crucial role as an intervening variable in explaining the relationship between strategic factors and MSME performance. Ikhsan and Muafi (2023) found that competitive advantage mediates the influence of innovation on MSME performance. Similarly, Ghasemi et al. (2022) indicate that innovation capability can enhance competitive advantage, which ultimately contributes to improved organizational performance. Thus, competitive advantage serves as an important mechanism through which various strategic factors influence MSME performance.

Although previous studies have examined factors affecting MSME performance, several research gaps remain. For instance, the study conducted by Maningsih (2024) only investigated the influence of management accounting information systems on MSME performance without including competitive advantage as a mediating variable. Research by

Ryandi (2023) focused primarily on product innovation and competitive advantage in relation to marketing performance but did not incorporate management accounting factors. Meanwhile, the study by Ikhsan and Muafi (2023) examined the relationship between innovation and MSME performance through competitive advantage but did not consider the role of strategic management accounting. In addition, studies by Nguyen et al. (2022) and Rosli and Sidek (2022) have not simultaneously integrated management accounting information, product innovation, and strategic management accounting with competitive advantage as an intervening variable in the MSME context.

Therefore, this study aims to analyze the influence of management accounting information, product innovation, and strategic management accounting on MSME performance, with competitive advantage serving as an intervening variable. This research is expected to provide both theoretical and practical contributions in enhancing the performance and sustainability of MSMEs.

REVIEW OF LITERATURE

The Resource-Based View (RBV) theory explains that a firm's competitive advantage originates from its ability to effectively manage and utilize its internal resources. These resources may include both tangible and intangible assets such as technology, knowledge, managerial capabilities, and information systems owned by the company (Barney & Clark, 2007). A company can achieve competitive advantage when it possesses resources that are valuable, rare, difficult to imitate, and not easily substituted by competitors.

The Effect of Management Accounting Information on MSME Performance

Management accounting information plays an important role in providing information needed by management for planning, controlling, and decision-making processes. Accurate and relevant information enables business actors to manage operational activities more effectively, thereby improving business performance. Research conducted by Ahmad and Zabri (2021) shows that management accounting practices have a positive influence on the performance of small and medium-sized enterprises. In addition, Nguyen et al. (2022) found that management accounting systems are positively related to company performance because they assist management in making better business decisions.

H1: Management accounting information has a positive effect on MSME performance.

The Effect of Product Innovation on Competitive Advantage

Product innovation refers to a company’s ability to create new products or improve the quality of existing products in order to provide added value for consumers. The ability to innovate helps companies create product differentiation and strengthen their competitiveness in the market. Research by Ghasemi et al. (2022) indicates that innovation capability can enhance a firm's competitive advantage.

H2: Product innovation has a positive effect on the competitive advantage of MSMEs.

The Effect of Strategic Management Accounting on Competitive Advantage

Strategic management accounting provides strategic information that can help management formulate more effective business strategies. Through such information,

companies are able to understand market conditions, competitor behavior, and business opportunities that can be utilized to strengthen their competitiveness. Henri (2021) found that management control systems support the implementation of organizational strategies. Based on this explanation, the following hypothesis is proposed:

H3: Strategic management accounting has a positive effect on the competitive advantage of MSMEs.

The Effect of Management Accounting Information on Competitive Advantage

Management accounting information is not only useful for internal decision-making but also assists companies in formulating appropriate strategies to deal with business competition. By utilizing relevant information, companies can improve operational efficiency and create greater value for customers. Almtiri and Miah (2021) found that effective accounting information systems can enhance a firm's operational performance, indicating that proper use of information can help companies develop competitive advantage.

H4: Management accounting information has a positive effect on the competitive advantage of MSMEs.

The Effect of Competitive Advantage on MSME Performance

Competitive advantage refers to a company's ability to create greater value compared to its competitors, thereby improving organizational performance. Firms with competitive advantage are better able to attract customers and maintain their position in the market. Research by Soegihono and Yuniawan (2023) indicates that competitive advantage positively influences business performance. Similarly, Ghasemi et al. (2022) found that competitive advantage significantly improves company performance.

H5: Competitive advantage has a positive effect on MSME performance.

The Effect of Product Innovation on MSME Performance

Product innovation allows companies to create products that are more attractive and aligned with consumer needs. This can enhance customer satisfaction and ultimately improve business performance. Research by O'Cass and Sok (2021) shows that innovation has a positive effect on business performance. In addition, Irmawati et al. (2024) found that product innovation improves the marketing performance of MSMEs.

H6: Product innovation has a positive effect on MSME performance.

The Effect of Strategic Management Accounting on MSME Performance

Strategic management accounting helps companies understand market conditions and formulate appropriate strategies to improve competitiveness and business performance. Henri (2021) demonstrated that management control systems can improve company performance through the implementation of effective strategies.

H7: Strategic management accounting has a positive effect on MSME performance.

The Mediating Role of Competitive Advantage in the Relationship between Product Innovation and MSME Performance

A company's ability to innovate in products can strengthen its competitive advantage, which in turn leads to improved business performance. Research by Soegihono and Yuniawan (2023) indicates that competitive advantage mediates the relationship between innovation and business performance.

H8: Competitive advantage mediates the effect of product innovation on MSME performance.

The Mediating Role of Competitive Advantage in the Relationship between Management Accounting Information and MSME Performance

Management accounting information provides relevant data that assists management in planning, controlling, and making strategic decisions. Accurate information helps MSME actors improve operational efficiency, understand market conditions, and formulate appropriate strategies. The effective utilization of such information enables companies to create greater value compared to competitors, thereby strengthening competitive advantage. Ultimately, this competitive advantage contributes to improved MSME performance.

H9: Competitive advantage mediates the effect of management accounting information on MSME performance.

RESEARCH METHOD

This study employs a quantitative approach with the objective of empirically examining the relationships and effects among the research variables. A quantitative approach is selected because the study utilizes numerical data that are analyzed using statistical techniques to test the hypotheses that have been formulated. This research is categorized as associative research, which aims to identify the relationships or influences between two or more variables. Quantitative methods are widely used in studies that examine the effects of management accounting systems and innovation on business performance (Darmayanti, 2021).

Previous studies indicate that management accounting information has a positive influence on MSME performance, as such information supports more effective business decision-making (Darmayanti, 2021). The data collection technique used in this study is a questionnaire. The questionnaires were distributed to respondents who are owners or managers of MSMEs. Respondents' answers were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Data analysis in this research was conducted using Structural Equation Modeling (SEM) based on Partial Least Squares (PLS) with the assistance of the SmartPLS application. The SEM-PLS method was chosen because it is capable of analyzing complex relationships among multiple variables simultaneously, including intervening variables. Furthermore, this method does not require a large sample size and is suitable for predictive research models. SEM-PLS is widely applied in studies examining relationships among accounting information systems, innovation, and organizational performance (Sari & Nugroho, 2022).

RESULTS AND DISCUSSION

Measurement Model Analysis (Outer Model)

1. Validity Test

Convergent validity and discriminant validity are important components in assessing the validity of a measurement model. Convergent validity analysis is determined using the loading factor parameter and the Average Variance Extracted (AVE) value.

a) Convergent Validity

Convergent validity refers to the correlation between indicator scores and their corresponding construct scores. The value of convergent validity is reflected in the loading factor of each indicator on its latent variable. A loading factor value greater than 0.70 and an AVE value greater than 0.50 are generally considered acceptable. The loading factor values obtained in this study can be seen in the table below.

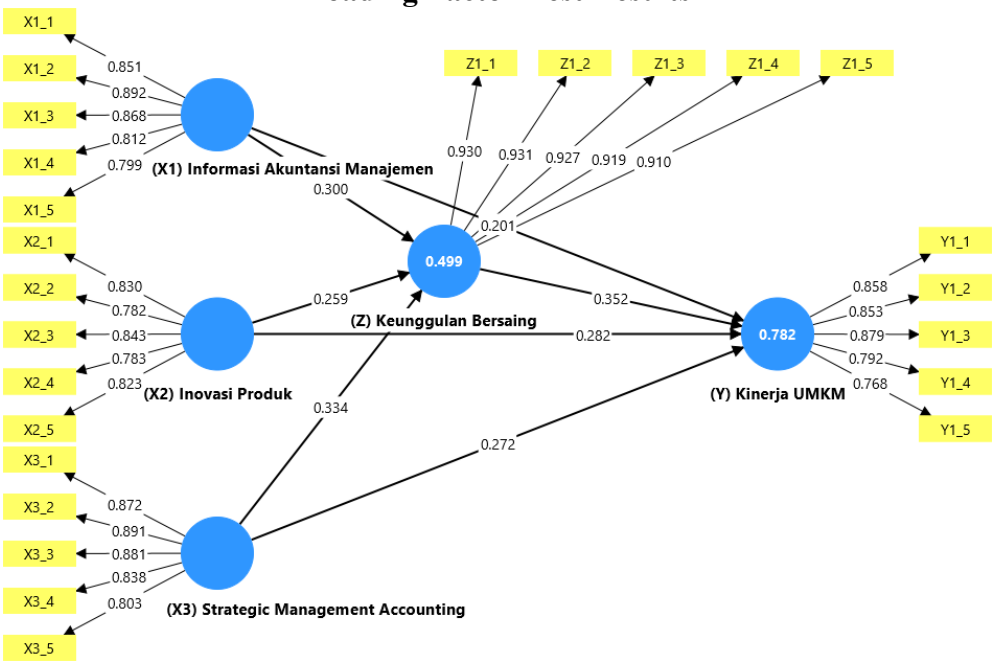
Table 1.
Loading Factor Values

Indicator	(X1) Management Accounting Information	(X2) Product Innovation	(X3) Strategic Management Accounting	(Y) MSME Performance	(Z) Competitive Advantage
X1_1	0.851				
X1_2	0.892				
X1_3	0.868				
X1_4	0.812				
X1_5	0.799				
X2_1		0.830			
X2_2		0.782			
X2_3		0.843			
X2_4		0.783			
X2_5		0.823			
X3_1			0.872		
X3_2			0.891		
X3_3			0.881		
X3_4			0.838		
X3_5			0.803		
Y1_1				0.858	
Y1_2				0.853	
Y1_3				0.879	
Y1_4				0.792	
Y1_5				0.768	

Indicator	(X1) Management Accounting Information	(X2) Product Innovation	(X3) Strategic Management Accounting	(Y) MSME Performance	(Z) Competitive Advantage
Z1_1					0.930
Z1_2					0.931
Z1_3					0.927
Z1_4					0.919
Z1_5					0.910

Based on the table above, all indicators in this study are considered valid, as each indicator has a loading factor value greater than 0.70. This indicates that all indicators are able to adequately represent their respective latent variables. Furthermore, the figure below presents the results of the loading factor test obtained from the SmartPLS application.

Figure 1
Loading Factor Test Results



Another measurement used to assess validity is the Average Variance Extracted (AVE). The AVE value should be greater than 0.50 to indicate adequate convergent validity. As shown in the table below, the Competitive Advantage variable has the highest AVE value of 0.853, while the Product Innovation variable has the lowest AVE value of 0.660. Nevertheless, all variables meet the required AVE threshold, indicating that the constructs in this study have satisfactory convergent validity.

Table 2.
Average Variance Extracted (AVE) Values

Variable	Average Variance Extracted (AVE)
(X1) Management Accounting Information	0.714
(X2) Product Innovation	0.660
(X3) Strategic Management Accounting	0.735
(Y) MSME Performance	0.691
(Z) Competitive Advantage	0.853

Based on the table above, it can be observed that the AVE values for all variables are greater than 0.50. Therefore, it can be concluded that both the loading factor and AVE values meet the requirements for convergent validity.

b) Discriminant Validity

In assessing discriminant validity, several tests are conducted, including examining the **Fornell–Larcker criterion** and **cross loadings**.

Fornell Larcker Criterion

The Fornell Larcker criterion values and the AVE values for each indicator obtained from the SmartPLS output are presented as follows:

Table 3
Fornell–Larcker Criterion Values

Variables	(X1) Management Accounting Information	(X2) Product Innovation	(X3) Strategic Management Accounting	(Y) MSME Performance	(Z) Competitive Advantage
(X1) Management Accounting Information	**0.845**				
(X2) Product Innovation	0.588	**0.813**			
(X3) Strategic Management Accounting	0.339	0.412	**0.858**		
(Y) MSME Performance	0.658	0.714	0.647	**0.831**	
(Z) Competitive Advantage	0.565	0.573	0.542	0.775	**0.923**

The validity test using the Fornell–Larcker criterion requires that the value of each variable on its own construct must be higher than its correlations with other constructs, as shown in the table above. The Management Accounting Information variable has a value of 0.845, which is higher than its correlations with other constructs. The Product Innovation variable has a value of 0.813, which is also higher than its correlations with other constructs. The Strategic Management Accounting variable shows a value of 0.858, which is greater than its correlations with other constructs, and the MSME Performance variable has a value of 0.831, which is higher than its correlations with other constructs. Therefore, it can be concluded that all constructs in this study meet the requirements of the discriminant validity test.

Cross Loadings

Table 4
Cross Loading Values

Indicator	(X1) Management Accounting Information	(X2) Product Innovation	(X3) Strategic Management Accounting	(Y) MSME Performance	(Z) Competitive Advantage
X1_1	0.851	0.440	0.291	0.567	0.471
X1_2	0.892	0.559	0.321	0.598	0.476
X1_3	0.868	0.503	0.254	0.595	0.510
X1_4	0.812	0.519	0.312	0.532	0.541
X1_5	0.799	0.458	0.252	0.474	0.373
X2_1	0.427	0.830	0.289	0.550	0.459
X2_2	0.408	0.782	0.289	0.583	0.458
X2_3	0.560	0.843	0.421	0.668	0.554
X2_4	0.462	0.783	0.270	0.490	0.339
X2_5	0.519	0.823	0.380	0.582	0.481
X3_1	0.349	0.419	0.872	0.619	0.509
X3_2	0.244	0.351	0.891	0.540	0.481
X3_3	0.257	0.308	0.881	0.570	0.486
X3_4	0.266	0.340	0.838	0.521	0.426
X3_5	0.338	0.346	0.803	0.515	0.413
Y1_1	0.636	0.611	0.512	0.858	0.669
Y1_2	0.497	0.564	0.704	0.853	0.677
Y1_3	0.591	0.653	0.481	0.879	0.689
Y1_4	0.489	0.587	0.564	0.792	0.549
Y1_5	0.517	0.551	0.417	0.768	0.629
Z1_1	0.535	0.598	0.469	0.729	0.930

Indicator	(X1) Management Accounting Information	(X2) Product Innovation	(X3) Strategic Management Accounting	(Y) MSME Performance	(Z) Competitive Advantage
Z1_2	0.546	0.520	0.521	0.732	0.931
Z1_3	0.492	0.508	0.485	0.664	0.927
Z1_4	0.536	0.570	0.545	0.762	0.919
Z1_5	0.497	0.437	0.479	0.682	0.910

Based on the table above, it can be seen that each indicator has the highest cross loading value on its respective construct, with loading values greater than 0.70. This indicates that the indicators are more strongly associated with their corresponding variables than with other variables. Therefore, it can be concluded that the variables in this study meet the required criteria for discriminant validity.

Heterotrait–Monotrait Ratio (HTMT)

The HTMT ratio is another method used to assess discriminant validity. The HTMT value should be less than 1.00 to indicate that the constructs meet the requirements for discriminant validity.

Table 5
Heterotrait–Monotrait Ratio (HTMT)

Variables	(X1) Management Accounting Information	(X2) Product Innovation	(X3) Strategic Management Accounting	(Y) MSME Performance	(Z) Competitive Advantage
(X2) Product Innovation	0.659				
(X3) Strategic Management Accounting	0.374	0.455			
(Y) MSME Performance	0.733	0.804	0.716		
(Z) Competitive Advantage	0.604	0.615	0.578	0.838	

It can be seen from the table above that all variables have **HTMT values below 1.00**. Therefore, it can be concluded that all constructs in this study **pass the HTMT test and meet the requirements for discriminant validity**.

Reliability Test

Cronbach's Alpha

The table below presents the Cronbach's Alpha values for each variable as follows:

Table 6
Cronbach's Alpha

Variables	Cronbach's Alpha
(X1) Management Accounting Information	0.900
(X2) Product Innovation	0.872
(X3) Strategic Management Accounting	0.910
(Y) MSME Performance	0.887
(Z) Competitive Advantage	0.957

Based on the table above, it can be seen that all indicators for each variable meet the reliability test requirements, as the Cronbach's Alpha values are greater than 0.60. Therefore, it can be concluded that all variables in this study are reliable.

Composite Reliability

Composite reliability is used to test the reliability value of the indicators within each variable. If a variable has a composite reliability value greater than 0.70, it can be considered to have met the reliability requirement. The data are presented as follows.

Table 7
Composite Reliability Values

Variables	Composite Reliability (rho_a)
(X1) Management Accounting Information	0.905
(X2) Product Innovation	0.880
(X3) Strategic Management Accounting	0.914
(Y) MSME Performance	0.891
(Z) Competitive Advantage	0.959

Based on the table above, it can be seen that all variables have composite reliability values greater than 0.70. Therefore, it can be concluded that all variables in this study meet the required reliability criteria. Thus, the research can proceed to the inner model testing stage.

Variance Inflation Factor (VIF) Test

The Variance Inflation Factor (VIF) is used to measure how much the variance of an estimated regression coefficient increases due to multicollinearity among the independent variables. The VIF value will become larger if there is a stronger correlation among the independent variables. A VIF value greater than 5 may indicate the presence of multicollinearity. The VIF values are presented in the table below.

Table 8
Variance Inflation Factor (VIF) Values

Indicator	VIF
X1_1	2.497
X1_2	3.156

Indicator	VIF
X1_3	2.578
X1_4	2.007
X1_5	2.067
X2_1	2.139
X2_2	1.743
X2_3	2.082
X2_4	1.888
X2_5	2.034
X3_1	2.713
X3_2	3.208
X3_3	2.941
X3_4	2.349
X3_5	2.018
Y1_1	2.520
Y1_2	2.385
Y1_3	3.029
Y1_4	1.994
Y1_5	1.990
Z1_1	4.864
Z1_2	4.990
Z1_3	4.936
Z1_4	4.245
Z1_5	4.042

Structural Model Analysis (Inner Model)
Goodness of Fit Test
R-Square (R^2)

Table 9
R-Square Values

Variable	R-Square
(Y) MSME Performance	0.782
(Z) Competitive Advantage	0.499

Based on the table above, it can be seen that the R-Square value of the MSME Performance variable is 0.782. This value indicates that the Management Accounting Information variable, Product Innovation variable, and Strategic Management Accounting variable influence the MSME Performance variable by 78.2%, while the remaining 21.8% is influenced by other variables. Furthermore, the R-Square value of the Competitive Advantage variable is 0.499. This value indicates that the Management Accounting Information variable, Product Innovation variable, and Strategic Management Accounting variable influence the Competitive Advantage variable by 49.9%, while the remaining 50.1% is influenced by other variables.

F-Square

According to Ghozali (2021:73–74), the effect size (f^2) is used as a measure to determine the strength of the model. The f^2 values are categorized as 0.02 (weak), 0.15 (moderate), and 0.35 (strong).

Table 10
F-Square Values

Variable	(Y) MSME Performance	(Z) Competitive Advantage
(X1) Management Accounting Information	0.107	0.115
(X2) Product Innovation	0.203	0.081
(X3) Strategic Management Accounting	0.234	0.181
(Z) Competitive Advantage	0.286	—

Based on the table above, the Management Accounting Information variable has an effect on the MSME Performance variable of 0.107 (weak) and on the Competitive Advantage variable of 0.115 (weak). The Product Innovation variable has an effect on the MSME Performance variable of 0.203 (moderate) and on the Competitive Advantage variable of 0.081 (weak). The Strategic Management Accounting variable has an effect on the MSME Performance variable of 0.234 (moderate) and on the Competitive Advantage variable of 0.181 (moderate). Meanwhile, the Competitive Advantage variable has an effect on the MSME Performance variable of 0.286 (moderate).

Q^2 PLS Predict

The evaluation of the PLS model is also conducted using **Q^2 PLS Predict**. The results can be seen in the table below.

Table 11
PLS Predict Values

Variable	Q^2 Predict
(Y) MSME Performance	0.693
(Z) Competitive Advantage	0.455

Based on the results of the data processing, the PLS Predict value for the MSME Performance variable is 0.693 > 0, and for the Competitive Advantage variable it is 0.455 > 0. This indicates that the proportion of data variance explained by the research model is 69.3% and 45.5%, respectively. The remaining 30.7% and 54.5% are explained by other factors outside this study. Therefore, it can be concluded that this research model has a good **Goodness of Fit**.

Model Fit

Model Fit represents a value used to indicate how well the proposed model fits the observed data. This value determines the cumulative percentage that reflects the adequacy of the model. The following are the Model Fit results of the research model.

Table 12
Model Fit

Data	Saturated Model	Estimated Model
SRMR	0.063	0.063
d_ULS	1.298	1.298
d_G	0.912	0.912
Chi-square	405.145	405.145
NFI	0.796	0.796

Based on the calculations above, it is known that the Standardized Root Mean Square Residual (SRMR) value of 0.063 is less than 0.10, and the Normed Fit Index (NFI) value of 0.796 is close to 1. Therefore, it can be concluded that the data are able to represent the overall model adequately, indicating that the model is fit.

Hypothesis Testing

Table 13
Hypothesis Test Results

Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
(X1) Management Accounting Information → (Y) MSME Performance	0.201	0.197	0.095	2.102	0.036
(X1) Management Accounting Information → (Z) Competitive Advantage	0.300	0.301	0.095	3.166	0.002
(X2) Product Innovation → (Y) MSME Performance	0.282	0.286	0.068	4.123	0.000
(X2) Product Innovation → (Z) Competitive Advantage	0.259	0.258	0.089	2.916	0.004
(X3) Strategic Management Accounting → (Y) MSME Performance	0.272	0.275	0.066	4.134	0.000

Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
(X3) Strategic Management Accounting → (Z) Competitive Advantage	0.334	0.331	0.087	3.815	0.000
(Z) Competitive Advantage → (Y) MSME Performance	0.352	0.354	0.108	3.254	0.001
(X1) Management Accounting Information → (Z) Competitive Advantage → (Y) MSME Performance	0.106	0.109	0.053	2.002	0.045
(X2) Product Innovation → (Z) Competitive Advantage → (Y) MSME Performance	0.091	0.091	0.042	2.170	0.030
(X3) Strategic Management Accounting → (Z) Competitive Advantage → (Y) MSME Performance	0.118	0.114	0.039	2.990	0.003

The hypothesis acceptance criteria state that if the T-statistic is greater than 1.96 and the P-value is less than 0.05, then Ha is accepted and Ho is rejected, and vice versa. Based on the hypothesis testing results, all proposed hypotheses are supported. Management Accounting Information has a positive and significant effect on MSME Performance (β = 0.201; T = 2.102; P = 0.036) and Competitive Advantage (β = 0.300; T = 3.166; P = 0.002). Product Innovation also shows a positive and significant effect on MSME Performance (β = 0.282; T = 4.123; P = 0.000) and Competitive Advantage (β = 0.259; T = 2.916; P = 0.004). In addition, Strategic Management Accounting positively and significantly influences MSME Performance (β = 0.272; T = 4.134; P = 0.000) and Competitive Advantage (β = 0.334; T = 3.815; P = 0.000). Furthermore, Competitive Advantage has a positive and significant effect on MSME Performance (β = 0.352; T = 3.254; P = 0.001). The mediation analysis also indicates that Competitive Advantage significantly mediates the relationship between Management Accounting Information (β = 0.106; T = 2.002; P = 0.045), Product Innovation (β = 0.091; T = 2.170; P = 0.030), and Strategic Management Accounting (β = 0.118; T = 2.990; P = 0.003) with MSME Performance. These results confirm that all variables have positive and significant direct and indirect effects within the research model.

Research Results and Discussion

The results of the measurement model analysis show that all indicators in this study meet the criteria of validity and reliability. All loading factor values are above 0.7 and the Average Variance Extracted (AVE) values are above 0.5, indicating that the indicators adequately represent the constructs. In addition, Cronbach's Alpha and Composite Reliability values exceed the required minimum, confirming that the research instruments are reliable. The structural model analysis indicates that management accounting information, product innovation, and strategic management accounting explain 78.2% of the variance in MSME performance and 49.9% of the variance in competitive advantage, showing that the research model has strong explanatory power.

Hypothesis testing results reveal that management accounting information positively and significantly affects MSME performance and competitive advantage, as accurate and relevant accounting information supports better decision-making and business planning. Product innovation also has a positive and significant influence on MSME performance and competitive advantage, as innovative products create added value and differentiation in the market. Similarly, strategic management accounting positively and significantly affects MSME performance and competitive advantage, as it helps businesses analyze costs, competitors, and market conditions more strategically.

Furthermore, competitive advantage positively and significantly influences MSME performance, indicating that businesses with stronger competitive advantages can better maintain customers and improve market performance. The results also show that competitive advantage mediates the relationship between management accounting information, product innovation, and strategic management accounting with MSME performance, meaning these factors improve performance both directly and indirectly through the creation of competitive advantage.

CONCLUSION

In conclusion, management accounting information, product innovation, and strategic management accounting have positive and significant effects on MSME performance and competitive advantage. Competitive advantage also significantly improves MSME performance and mediates the relationship between the three variables and performance. Therefore, MSME actors should strengthen the use of management accounting information, continuously encourage product innovation, and apply strategic management accounting in business management. These efforts can enhance competitive advantage and ultimately improve MSME performance sustainably.

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