The Impact of Management Accounting System on SME's Performance

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ABSTRACT

This study aims to examine the direct effect of the characteristics of the Management Accounting System (SAM) on the performance of SMEs. Further, this study also examines the role of innovation as a mediating variable. This study's sample consists of managers or finance departments from SMEs in Rembang Regency. Associative research is used. In this study, quantitative data was collected through primary sources. In this study, data processing algorithms were calculated utilizing SEM-based variants (SEM PLS) and a smart PLS software program. The study's findings support the concept that management accounting systems influence the performance of SMEs. The ability to innovate moderates the indirect influence of management accounting systems on the performance of SMEs. This research's contribution is projected to aid SMEs by focusing on innovation strategies, management accounting systems in SME decision making connected to performance, and competitive advantage of SMEs.

Keywords: Management Accounting System; Innovation; SMEs Performance

1. INTRODUCTION

Small and Medium Enterprises (SMEs) are one of the important factors in supporting the national economy. SMEs always required to improve their business performance in the face of increasingly competitive global competition. Good performance will show a high level of growth and profitability will have an impact on the level of employee welfare and contribute to the country's economic development.

When compared to large firms, SMEs provide a considerable contribution to economic growth and employment (UB). In 2019, SMEs contributed 60.51 percent of GDP, while UB contributed 39.49 percent, while SMEs contributed 96.92 percent of employment, while UB contributed 3.08 percent. One of the most significant issues that MSMEs encounter is fund management. Good fund management is a critical aspect in the success or failure of SMEs. The practical method in managing funds for SMEs is to apply good accounting. Thus, accounting makes MSMEs able to get various financial information in running their business. Recording of transactions must be in accordance with any transactions that occurs and based on applicable accounting standards (SAK EMKM).

To make decisions, management requires credible information. An accurate and dependable accounting system must meet characteristics such as broad scope, timeliness, aggregation, and integration. The changing global environment and rapid technological breakthroughs urge businesses to be inventive and responsive in order to meet consumers' needs and desires, [1] [2]. Each strategy, including the innovation strategy, necessitates certain information. The innovation approach has an impact on the design of management accounting information systems. There is a substantial relationship between corporate strategy and management accounting information systems [3].

According to research on the relationship between management accounting systems and managerial performance [4], [5], [6], [7], MAS information has a considerable favorable effect on the performance of SME managers. However, the findings of the research [8] differ in terms of the management accounting system's effect on performance; the findings revealed that the management accounting system had no substantial positive effect on performance. Based on the findings, research was carried out with novelty as a moderating variable.

Non-financial information from management accounting systems may be utilized to solve difficulties produced by innovative efforts, as well as consumer-focused information to meet customer wants more readily. Furthermore, the availability of integrated

information to aid communication and collaboration between departments, which increases the possibility of successful innovation activities and reduces uncertainty in the innovation process. Similarly, MAS that offers timely information allows managers to systematically gather knowledge about market dynamics, consumer requests, and competitor actions, which can be leveraged in the innovation process by managers to make timely decisions [9].

Contingency theory was applied to MAS in this and earlier studies to evaluate the effect of MAS traits on SME performance. Previous MAS research studies, such as those conducted by [1] [5] [10], investigated the relationship between environmental conditions, organizational traits, MAS, and performance. If the conditions are different, the design will be different, as seen by the type of industry and region/geography. Certain innovation tactics are one of the dependent factors influencing financial performance in competitive environments. Innovation behavior demonstrates the company's proclivity to seek out new ideas and participate in the creative process demonstrated for product development [11].

Based on the explanation above, there is still a research gap in previous research and the lack of research on management accounting systems mediated by innovation in SMEs, this study aims to examine the effect of management accounting systems on the performance of SMEs with innovation as a mediating variable.

2. METHOD

The method of research used in this study is causality research. The technique of collecting data using a questionnaire method. This study uses three research variables. Questionnaires were distributed by going directly to respondents and sending survey links via internet/online. The population of SMEs in Rembang Regency is 586 companies, from the total population, 200 companies will be sample. Sampling in this study using cluster sampling is done by dividing the population into several classes based on the sub-district. Several clusters were then selected randomly. The data items in the selected cluster are the samples. Table 1 below is the proportion of the sample based on the distribution per sub-district.

Table 1 Proportion of Research Sample

Districts	Total SMES	%	Proportion
Rembang	47	8.0%	16
Lasem	33	5.5%	11
Pancur	32	5.5%	11
Sedan	102	17.5%	35
Pamotan	111	19.0%	38
Gunem	70	12.0%	24
Sulang	31	5.5%	11
Bulu	24	4.0%	8
Sumber	15	2.5%	5
Sluke	15	2.5%	5
Sarang	30	5.0%	10
Kragan	47	8.0%	16
Sale	29	5.0%	10
Total	**586**		**200**

Source: Disperindagkop and UKM, 2021

The variables in this study consisted of independent variables, mediating variables, and dependent variables. The independent variable in this study is the Management Accounting System. The mediating variable in this study is innovation and the dependent variable is financial performance. The independent variable in this study is the Management Accounting System (SAM), which includes the use of operating information, management accounting information and financial accounting information that is useful for meeting existing information needs, planning, assessing and making decisions, as well as to increase the effectiveness of SME managers' decision-making. This study uses a Likert scale from a scale of 1 to 5, where for the information use

variable, the number 1 represents the statement never at all until the number 5 represents the statement very often.

The dependent variable in this study is the performance of SMEs. The financial performance variable was measured using a Likert scale of 1 – 5 from strongly disagree to strongly agree with 10 statement items. The indicators used are: 1) relative sales growth, 2) asset growth, and 3) relative profitability. The intervening variable in this research is innovation. Innovation is defined as respondents' perception of their unique way of achieving a sustainable competitive advantage and excellent performance. According to [12], innovation has four dimensions: administrative innovation, technological innovation, and social

innovation. Indicators of administrative innovation include organizational structure and administrative/accounting processes. Indicators of technological advancement include manufacturing technology and production process technology. As a metric, a Likert scale of 1 to 5 was utilized.

SEM with warp analysis. the hypothesis was tested using the PLS version 7 tool. This statistical analysis tool was chosen for numerous reasons [13],[14]. First, SEM-PLS is appropriate for research models that employ variables that cannot be directly measured (latent variables). Second, like the model in this work, the SEM analysis of concurrent dependence can be many. Third, given limited sample sizes, component-based SEM (PLS) can estimate very complex models. The following is the research model.

$$INOV = \alpha + \beta_1 MAS + \varepsilon_1 \quad \textbf{(1)}$$

$$PERFORM = \alpha + \beta_1 MAS + \beta_2 INOV + \varepsilon_2 \quad \textbf{(2)}$$

Where INOV as the intervening variable as well as the dependent variable, MAS is the management accounting system as the independent variable and PERFORM is the performance of SMEs as the dependent variable.

3. RESULT AND DISCUSSION

3.1. Respondent Response Rate

The total number of questionnaires distributed was 200. A total of 161 questionnaires were distributed, with 39 remaining unanswered. There were 8 incomplete surveys among the 161 returned questions, so these were eliminated from the study, leaving a total of 153 questionnaires to be analysed. Table 2 shows the results of data collection on the number of questionnaires.

Characteristics of respondents in this study are described in the category of sub-district division and the length of establishment of the business. Based on the data in table 3, it can be seen that the distribution of respondents based on the sub-district division is as follows.

Table 2 Results of Data Collection

Description	Total	Percentage
Distributed questionnaire	200	100.0%
Questionnaire that does not return	39	19.5%
Returning questionnaire	161	80.5%
Incomplete and unanalysed questionnaire	8	4.0%
Total	**153**	**76.5%**

Table 3 Proportion of Research Sample

District	Total SMES	Percentage	Proportion	Returned Questionnaire
Rembang	47	8.0%	16	12
Lasem	33	5.5%	11	8
Pancur	32	5.5%	11	6
Sedan	102	17.5%	35	30
Pamotan	111	19.0%	38	34
Gunem	70	12.0%	24	18
Sulang	31	5.5%	11	8
Bulu	24	4.0%	8	7
Sumber	15	2.5%	5	2
Sluke	15	2.5%	5	3
Sarang	30	5.0%	10	7
Kragan	47	8.0%	16	11
Sale	29	5.0%	10	7
Total	586	100.0%	200	153

3.1.1. Construct Validity and Reliability Test Results

In accordance with the SEM-PLS test procedure, the evaluation of the convergent validity of the constructs used Average Variance Extrated (AVE) [14]. The results of the outer model in table 4 show that the validity criteria have been met with an AVE of more than 0.5. Reliability has been met by composite reliability and cronbach alpha of more than 0.6.

Table 4 Construct Validity and Reliability Test Results

Construct	Validity AVE	Composite Reliability	Reliability Cronbach Alpha
MAS	0.567	0.782	0.721
Innovation	0.537	0.681	0.623
SMEs Performance	0.552	0.812	0.721

3.1.2. Descriptive statistics

Research descriptive statistics on respondents' answers can be seen in table 5. The descriptive statistics in table 5 showed that the utilization of information generated by MAS shows a higher average value of 101,097 compared to the average theoretical range of 80. The level of innovation in the sample SMEs is quite high with an average value of 33.65. the average theoretical range of 32. Table 5 also shows that the performance of SMEs is also shown with an average of 26.10 which is slightly higher than the theoretical range of an average value of 24. The comparison of the number of respondents based on the length of establishment of the business can be seen in table 6.

In terms of the length of establishment of the business, respondents from the 153-questionnaire data collected were dominated by the group of business establishments that were more than 10 years old as many as 90 respondents (58.82%), group 6-10 years as many as 42 respondents (27.45%), group 1 – 5 years as many as 21 respondents (13.72%).

Table 5 Descriptive Statistics

Construct	Average	Standard deviation	Median	Theoretical Range	Actual Range
MAS	101.097	1.062	120	20.00-140.00	8.00-56.00
Innovation	33.65	1.038	48	8.00-56.00	20.00-140.00
SMEs Performance	26.10	1.132	30	6.00-42.00	6.00-36.00

Table 6 Characteristics of respondents based on the length of establishment of the business

Description	Total	Percentage
1–5 years old	21	13,72%
6–10 years old	42	27,45%
≥ 10 years old	90	58,82%
Total	**153**	**100%**

3.2. Hypothesis Test

Table 7 displays the results of the mediation model test. Figure 1 depicts the PLS output as a consequence of the mediation test (processed by authors). The estimation results from models 1 and 2 demonstrate that the

goodness of fit criteria were met when the APC and ARS values are statistically significant and the AVIF value is less than 5 [4]. The results of Table 7 demonstrate that the coefficients c, a, and b significantly met the conditions of the mediation test, with values of 0.165, 0.322, and 0.403, respectively.

Table 7 Results of Testing Hypothesis 1 and Hypothesis 2

Route	Direct Effect		Indirect Effect	
	Coefficient	p-value	Coefficient	p-value
MAS ⯈ Innovation	0.322	0.000		
Innovation ⯈ Performance	0.403	0.000		
MAS ⯈ Performance	0.165	0.018	0.15	0.000
MAS ⯈ Innovation ⯈ Performance			0.130	0.000
Model Fit Indicator				
Average Path Coefficient (APC)			0.405	0.003
Average R-Square (ARS)			0.320	0.014
Average Variance Inflation Factor (AVIF)			1.134	1.040

3.3. Discussion

The test results suggest that the coefficient of the direct effect of SAM on the performance of SMEs (c) in model (1) is significant at 0.165. The estimation model (2) results suggest that the indirect effect of SAM on SMEs' performance mediated by innovation with the coefficient (c') reduced to 0.130 but remained significant.
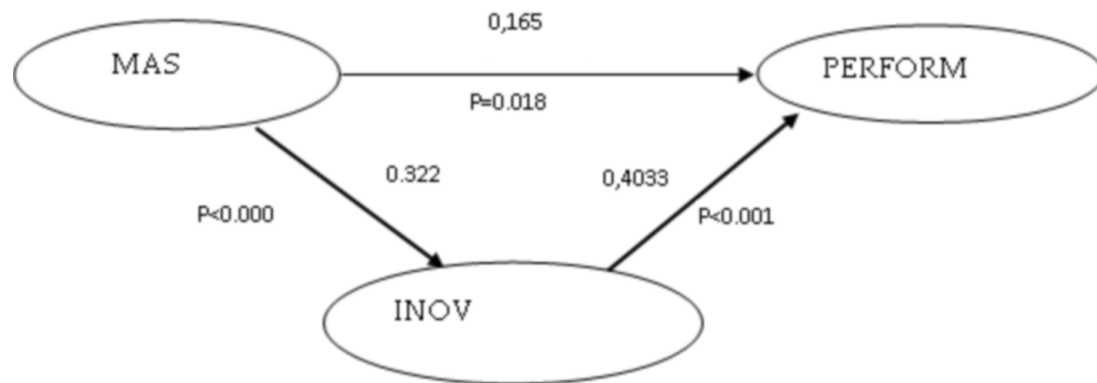
This demonstrates partial mediation, or that innovation partially mediates the influence of MAS on SMEs' performance. The test support results indicate that hypotheses 1 and 2 can be accepted where SAM has a direct or indirect effect on the performance of SMEs. SAM has a partial mediating influence on the performance of SMEs through innovation.

Figure 1 PLS Output Model

The findings of the SEM-PLS Warp 7 tests demonstrate empirically the direct and indirect models (through mediation). According to Hypothesis 1, MAS has an impact on the performance of SMEs. In addition to the broad reach, timely delivery of information must be a concern in order to avoid the potential of profit loss or the incidence of losses. If the management accounting information system is incorporated into all firm activities, it will also help managers make decisions. Aggregation in the management accounting system will assist management in considering the impact of upcoming choices. As a result, the broad range of information provided by SAM will be extremely useful in decision making [15].

According to Hypothesis 2, innovation mediates the influence of MAS on SME performance. The findings indicated that hypothesis 2 was also supported. SMEs in Rembang Regency that execute an innovation plan will continue to watch the creation of market opportunities, are committed to change, and are fast to adapt to competition. Rembang Regency's innovative SMEs are also constantly developing new market opportunities that necessitate flexible and innovative structures. As a result, non-financial and future-oriented information is required by the company's internal parties, in this case managers, to make better judgments. The quality of decisions will also have an impact on SMEs' performance. Companies with high innovation will have an impact on competitive advantage and will ultimately be able to achieve high performance [4], [16], [6].

4. CONCLUSION

The conclusion of this study, first, SAM affects the performance of SMEs. In addition to the broad scope, the timely delivery of information must also be a concern so that the possibility of loss of profits or the occurrence of losses can be avoided. Then, innovation mediates the effect of MAS on SME performance. Based on information, the Management Accounting System will encourage SMEs to innovate that will increase the selling value of SME products, so that the added value in SME products will improve the performance of SMEs.

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