

Review: Journal of Multidisciplinary in Social Sciences

Volume 02 No 04 April 2025 E-ISSN: 3031-6375





The Role of Business Strategy in Moderating the Influence of Management Control Systems and Environmental Uncertainty on Managerial Performance

Sabaruddinsah Sabaruddinsah^{1*}, Neng Asiah²

¹Universitas Sultan Ageng Tirtayasa ²Universitas Pelita Bangsa Email: sabaruddinsah@untirta.ac.id

Abstract

This study aims to determine the influence of management accounting information systems, environmental uncertainty on managerial performance and whether business strategy can moderate the relationship between management accounting information systems and environmental uncertainty on performance. The research method uses a quantitative approach, with a research population of UMKM manufacturing companies in Bekasi City with a sampling technique using purposive random sampling. The data analysis technique uses *Partial Least Square* (SEM) PLS. The results of this study indicate that management accounting information systems and environmental uncertainty have a positive and significant effect on performance, while business strategy does not moderate the relationship between management accounting information systems and environmental uncertainty on managerial performance.

Keywords: Management accounting, information systems, environmental uncertainty, business strategy, managerial performance

Introduction

Management Control System (MCS) is not only a system but also a tool that is only able to monitor all forms of information and company activities including formulations of activities and companies in facing competition (Simmons in Sandanafu, 2017). This system also aims to manage and allocate resources properly, where through the management control system it is hoped that the implementation of the strategy will be effective in achieving the company's goals, both short-term and long-term goals. In addition, to determine success and sustainable development, the company must currently have a good system and quality workforce.

The performance of manufacturing companies, especially MSMEs, is often suboptimal due to weak management control systems and limited adoption of financial technology (Alma, 2020). A study by Gupta et al. (2021) shows that 60% of MSMEs in developing countries fail to achieve performance targets due to inefficiencies in operational and financial management. In addition, research by Chen & Zhang (2019) found that manufacturing companies with poor control systems tend to experience cost inefficiencies and decreased productivity by up to 30%. This is exacerbated by the lack of digital literacy, making it difficult for MSMEs to utilize financial technology (fintech) to improve performance (OECD, 2022).

The development of the contemporary business environment is characterized by increasingly complex turbulence and uncertainty. The latest data from the World Economic

Forum (2023) indicates that 73% of global companies face significant challenges in maintaining performance amid economic turmoil and technological disruption. In the context of Indonesia, a World Bank study (2023) revealed that the intensity of business environmental uncertainty increased by 42% during the 2020-2023 period, with the most significant impacts seen in the manufacturing and MSME sectors.

On the other hand, empirical findings from Deloitte's (2023) research show that organizations with integrated and adaptive management control systems (MSS) are able to maintain an average performance growth of 5.8% amidst high uncertainty conditions. This phenomenon leads to critical questions regarding the mechanisms through which MSS can interact with external environmental factors in influencing organizational performance, as well as the role of business strategy in moderating the relationship.

A critical review of the current literature reveals some inconsistencies in the empirical findings. Chen and Yang's (2021) study reported that the effectiveness of SPM in improving firm performance actually decreased under conditions of high environmental uncertainty, while Gupta et al.'s (2022) findings showed contradictory results. These inconsistencies suggest the existence of intervening variables that have not been fully revealed in previous models.

A preliminary survey of 150 manufacturing companies in Indonesia identified several pressing practical issues to be addressed. Sixty-eight percent of respondents acknowledged a gap between SPM design and business strategy implementation, while 82 percent expressed an urgent need for a control model that is more responsive to environmental changes. These preliminary findings reinforce the argument for the importance of research that comprehensively integrates the three variables.

Theoretically, this study provides three main contributions. First, the development of a contingency model that extends the traditional framework by including business strategy as a moderating variable. Second, the refinement of the Resource-Based View theory through the integration of external environmental perspectives. Third, the enrichment of strategic management literature with empirical evidence from the context of emerging markets which is still limited.

At a practical level, the findings of this research are expected to: (1) serve as a guideline for management in designing SPMs that are in line with business strategies and environmental conditions, (2) provide a framework for evaluating the effectiveness of control systems in various uncertainty scenarios, and (3) serve as a reference for formulating government policies to support the competitiveness of national companies.

A systematic analysis of 45 Scopus-indexed articles from 2015-2023 identified three major research gaps. First, only 22% of studies examine the interaction between SPM and environmental uncertainty. Second, less than 15% of studies include business strategy as a moderating variable. Third, the majority of studies (78%) were conducted in developed countries with business environment characteristics that differ significantly from emerging market contexts such as Indonesia.

This research is designed to fill these gaps through: (1) testing a comprehensive model that integrates three key variables, (2) developing a typology of SPM based on business strategy classification, and (3) providing empirical evidence from the Indonesian context that has not been widely explored in the international literature. The research findings are expected to provide significant contributions to the development of strategic management science and control systems.

Another research gap is the lack of research that integrates these three variables in the context of manufacturing MSMEs. Most studies focus on large companies or the service sector (PwC, 2023). Meanwhile, manufacturing MSMEs have unique characteristics, such as limited capital and dependence on local supply chains, which require different strategic approaches (ILO, 2022). Research from BCG (2021) also found that 65% of the literature on fintech and

MSME performance does not include mediation analysis, resulting in partial findings. Based on the description of the background that has been explained previously, this study aims to determine the effect of management control systems on managerial performance and examine the effect of environmental uncertainty on that performance. In addition, this study also aims to test whether business strategy plays a role as a moderating variable in the relationship between management control systems and performance, as well as in the relationship between environmental uncertainty and managerial performance.

Contingency Theory is a dominant theory in the study of organizational behavior, control systems, and management performance which states that organizational performance depends on the fit between contextual factors such as the external environment, organizational structure, control systems, and technology (Dwinarian, 2017). In the context of management accounting, this theory emphasizes that there is no universal accounting system that is suitable for all organizations, but must be adjusted to the specific conditions of the organization (Otley, 1980). The essence of this theory is the need for organizational adaptation to contingency factors such as the environment, organizational size, and business strategy to achieve optimal performance (Gardin & Greve, 2008).

The development of this theory has influenced various aspects of management, including leadership style and business strategy. Organizations need to adjust their leadership style to the business strategy being implemented, where the suitability between strategy and organizational contextual variables will determine the success of strategy implementation (Kusmantini, 2006). Organizational strategy as a contextual factor is relatively new in the contingency approach, but research shows its crucial role in achieving competitive advantage and organizational performance (Chenhall & Langfield-Smith, 1998; Henri, 2006 in Junita, 2018).

In the context of information systems including Financial Technology, contingency theory identifies various variables that influence the performance and utilization of information systems (Weill & Olson, 1987). This approach continues to develop as an important framework for understanding how organizations can design control systems and management strategies that fit their unique characteristics to achieve optimal performance.

Information is a crucial element for a company because it is the basis for managerial decision making. Management accounting information systems (MAIS) provide information that influences the quality of managers' decisions and becomes a benchmark for the effectiveness of their performance (Herawati & Sari, 2015). Especially in conditions of environmental uncertainty, managers need adequate information to make strategic decisions (Setiawan, 2012).

SIAM as an accounting information subsystem functions to produce quality information that helps managers in planning, controlling, and decision making. This system not only improves understanding of the external environment but also helps identify relevant activities to achieve competitive advantage (Herawati & Sari, 2015). In a dynamic business environment, SIAM becomes a vital tool to reduce uncertainty and optimize managerial performance (Maskudi, 2014).

Company performance is highly dependent on the effectiveness of managers in achieving organizational goals. SIAM acts as a liaison that integrates, controls, and reports information to support strategic decision making (Febrianti & Fitri, 2019). Empirical research by Senduk et al. (2017) has proven the significant positive influence of SIAM on managerial performance, which underlies the formulation of this research hypothesis.

H1: Management accounting information systems have a positive and significant effect on managerial performance.

Facing a dynamic business environment. Inability to anticipate change can cause organizational decisions to be inconsistent with established goals (Fristilia, 2013). In conditions

of high uncertainty, managerial planning and control functions are disrupted, inhibiting effective decision-making capabilities (Febrianti & Fitri, 2019).

Management's perception of environmental uncertainty is subjective and depends on each individual's predictive ability (Ilmy M et al., 2021). When the environment is difficult to predict, managers tend to perceive high levels of uncertainty, whereas in a stable environment, prediction becomes easier (Wiryana & Augustine, 2014). This predictive ability is the main determinant in assessing the level of uncertainty faced.

Research shows a complex relationship between environmental uncertainty and managerial performance. Although Fristilia (2013) highlighted the negative impact of high uncertainty, Ilmy M et al. (2021) found a significant positive effect, indicating that uncertainty can be a driver of managerial performance when responded to appropriately. This finding is the basis for formulating the research hypothesis.

H2: Environmental uncertainty has a positive and significant effect on managerial performance.

Business strategy is a company's effort to achieve sustainable competitive advantage by utilizing opportunities while overcoming external threats (Putri, 2014). Strategy implementation increases the complexity of managers' tasks, which require more and quality information for decision making (Herawati & Sari, 2015). In this context, the management accounting information system plays a crucial role as a provider of strategic information.

The alignment between business strategy and management accounting information system has been proven to improve managerial performance (Paylosa, 2014). Wiryana & Augustine's (2014) research further shows that business strategy as a moderating variable has a positive and significant effect on the relationship between management accounting system information characteristics and managerial performance. This finding strengthens the importance of integration between business strategy and supporting information systems.

Based on the theoretical framework, it can be formulated a hypothesis that: (1) business strategy has a positive effect on managerial performance, and (2) business strategy strengthens the influence of management accounting information systems on managerial performance. The integration of these three elements is the key to achieving sustainable competitive advantage. H3: There is an influence of management accounting information systems on managerial performance with business strategy as a moderating variable.

The uncertainty of the business environment affects the choice of company strategy, where sales fluctuations often occur due to the inaccuracy of strategy in responding to changes in demand (Malik, 2020). Dynamic environmental changes require companies to make adjustments to strategies and effective management control (Mulyadi & Johny Setyawan, 2001 in Yana, 2017).

Managers are required to be able to predict changes and collect relevant information for strategic decision making (Putri, 2014). The suitability of business strategies with contingency factors such as environmental uncertainty is key to achieving company goals (Putri & Syafruddin, 2021). The selection of different strategies will have a direct impact on organizational performance (Malik, 2020).

Research shows that defender strategies are effective in high uncertainty through a focus on cost efficiency and quality improvement (Junaid, 2022). Meanwhile, in a competitive environment, growth orientation is an option to achieve competitive advantage (Oliver, 1991 in Bastian, 2012). These findings form the basis for formulating research hypotheses about the relationship between environmental uncertainty, business strategy, and company performance. H4: There is an influence of environmental uncertainty on managerial performance with business strategy as a moderating variable.

Method

This type of research is quantitative research, namely a method based on the philosophy of positivism, used to research a certain population or sample, with sampling techniques usually carried out randomly, data collection using research instruments, statistical data analysis with the aim of testing the established hypothesis. Population is a generalization or general area in general consisting of objects/subjects that have certain qualities and characteristics that are determined by researchers to be studied and then conclusions drawn (Sugiyono, 2010:61). The population in this study is UMKM scale manufacturing companies in Bekasi City. The sample of this study is Micro, Small and Medium Enterprises in Bekasi where the sampling technique is carried out by *positive random sampling*, namely a sampling technique carried out with the characteristics in accordance with the objectives of the study. The determination of these criteria is as follows:

- 1. Business actors in the Micro, Small and Medium Enterprises (MSMEs) sector operate in the manufacturing sector.
- 2. MSME business actors who already have good financial planning.
- 3. Business actors who apply separate financial administration for personal finances and business finances.

Data analysis is a series of activities in simplifying data collected from research so that the collected data can be more easily interpreted. In accordance with the hypothesis that has been formulated, in this study the data analysis used is *partial least square* (PLS) version 3. PLS is an application used to analyze data that is able to provide more detailed and clear information to researchers. The data of this study were obtained through the distribution of questionnaires, so this research instrument needs to be tested to determine reliability and validity. Data processing in this study used the *Smart Partial Least Square* (PLS) program.

Validity test is a measure that shows that the measured variable is the variable to be studied. To assess the level of validity in the first way is the construct can be seen from the correlation between the item/indicator score and the construct score. Individual indicators are considered reliable if they have a correlation value above 0.70. However, at the stage of scale development research, *loading* 0.50 to 0.60 is still acceptable. Another test to assess the level of validity of the construct is by looking at the *average variance extracted* (AVE) value. A good model is required if the AVE value of each other construct is greater than 0.50. Reliability test aims to measure a questionnaire which is an indicator of a variable/construct. The construct reliability test is measured by two criteria, namely *composite reliability* and *cronbach alpha*, the construct is declared reliable if *the composite reliability* and *cronbach alpha values* are above 0.60.

Data analysis was conducted using the Structural Equation Modeling (SEM) approach using Partial Least Square (PLS) software. PLS is a structural equation model (SEM) based on components or variance. According to Ghozali (2008) PLS is an alternative approach that shifts from a covariance-based SEM approach to a variance-based one. For prediction purposes, the PLS approach is more suitable because it is assumed that all variable sizes are useful variants to explain. According to Abdillah and Jogiyanto (2015) the outer model or measurement model describes the relationship between indicator blocks and their latent variables. This model specifically connects latent variables with their indicators or it can be said that the outer model defines how each indicator relates to other variables. The tests carried out on the outer model are:

a. Convergent Validity, assessed based on loading factor (correlation between item score or component score with construct score). Indicator is considered valid if it has AVE (Average Variance Extranced) value above 0.5 or shows all outer loading of variable dimension has loading value > 0.5 so it can be concluded that the measurement meets

- convergent validity criteria (Ghozali 2008). AVE value is the average percentage of variance score extracted from a set of latent variables estimated through *the loading of its Standardized* indicator in the algorithm iteration process in PLS (Jogiyanto, 2009).
- b. Discriminant Validity, assessed based on cross loading, the model has sufficient discriminant validity if the cross loading value between constructs is greater than the cross loading value between constructs and other constructs in the model (Jogiyanto, 2009).
- c. According to Jogiyanto (2009) reliability test uses *Cronbach's Alpha* and *Composite Reliability values*. *Cronbach's Alpha* is used to measure the lower limit of a construct's reliability value while *Composite Reliability* measures the actual value of a construct's reliability. However, *Composite Reliability* is considered better in estimating the internal consistency of a construct. A construct or variable is said to be reliable if it provides a *Cronbach's Alpha value* > 0.7 and *Composite Reliability* > 0.7.

According to Abdillah and Jogiyanto (2015) the structural model (*Inner* model) is a structural model to predict causal relationships between latent variables. In evaluating the model structure in this study, *the Coefficient of Determination* (R2) and *Path Coefficient* (β) were used. This is used to see and assure the relationship between the constructs created (Jogiyanto, 2009).

- a. Coefficient of Determination (R2) The coefficient of determination in the construct is called the *R-square value*. The structural model (*inner model*) is a structural model to predict causal relationships between latent variables. The goodness of fit model is measured using the *R-square* of the dependent latent variable with the same interpretation as the *Q-square predictive relevance regression* for the structural model, measuring how well the observation values are generated by the model and also its parameter estimates. A *Q-square value* greater than 0 (zero) shows that the model has a *predictive relevance value*, while a *Q-square value* less than 0 (zero) shows that the model has less *predictive relevance*. However, if the calculation results show a *Qsquare value* of more than 0 (zero), then the model is considered to have a relevant predictive value (Ghozali, 2008).
- b. *Path Coefficient* (β) is the value of the path coefficient or the magnitude of the relationship or influence of the latent construct, carried out using the *Bootstrapping procedure*. *Path Coefficients* are a research method used to test the strength of direct and indirect relationships between various variables.

Results and Discussion Validity Test

Data validity testing in this study is by using *SmartPLS software*. In PLS, data validity testing uses *an outer model* that is measured based on *convergent validity* and *discriminant validity*. *Convergent validity* is calculated by looking at the *loading factor* and *average variance extracted* (AVE) values, if the *loading factor value* is at 0.7 in *confirmatory research* and in the range of 0.6-0.7 in *exploratory research*, but in early stage research, a value of 0.5 is still acceptable. In addition, the AVE value must be greater than 0.5, then the indicator can be said to be valid (Ghozali and Latan, 2015). *Discriminant validity* is measured by looking at *the cross loading*, if the *cross loading value* of a variable indicator is greater than the value of another variable indicator, then the variable has a unique value and is only related to the variable or indicator itself, not from other variables or other indicators.

Table 1. Average Variance Extracted (AVE)

		,
Variables	Average Variance Extracted	Information
	(AVE)	
KL	0.622	Valid
KM	0.618	Valid

SB	0.545	Valid
SIAM	0.558	Valid

Source: SmartPLS Output (2025)

Table 1 explains the AVE value of the measurement constructs of management accounting information systems, environmental uncertainty, managerial performance, and business strategy. It can be seen that each construct (variable) has a good validity value from each indicator in the questionnaire used to describe the management accounting information system, environmental uncertainty, managerial performance, and business strategy because it has an AVE value of more than 0.50 so it can be said to be valid.

Reliability Test

Reliability test is a questionnaire measurement tool consisting of indicators of a construct variable. A questionnaire can be said to be reliable if a person's answer to a question produces the same answer over time. The reliability test in this study uses the *Cronbach's Alpha* and *Composite Reliability values*.

Table 2 Cronbank Alpha

	· · · · · · · · · · · · · · · ·				
Cronbank Alpha		Information			
KL	0.756	Reliable			
KM	0.753	Reliable			
SB	0.767	Reliable			
SIAM	0.854	Reliable			

Source: SmartPLS Output (2025)

Table 2 shows that the *Cronbach alpha value* of each variable studied exceeds 0.70 so that it can be said that the questionnaire used is reliable or its validity can be trusted and there are no problems with the measurement of each variable indicator.

Assessing the Outer Model (Measurement Model)

The results of processing using *smartPLS* show that the *outer loading value* of the SIAM1, SIAM2, SIAM3, SIAM4 indicators on the variables have reached the *outer* model value requirements or correlation value requirements with the variables as a whole, which is above 0.70. While the value between 0.50 and 0.60 in the study is considered sufficient (Ghozali and Latan, 2015) so that it can be said to have met *convergent validity*.

The research structural model has been processed using *Smart* PLS can be seen in figure 1 below.

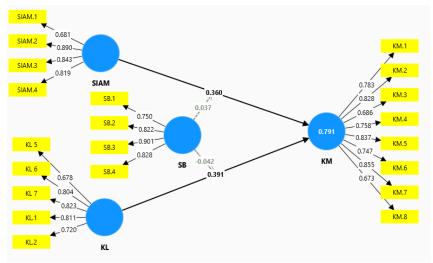


Figure 1 Full Model Structural Partial Least Square After elimination Source: SmartPLS Output (2025)

Hypothesis Testing

Inner model or structural model testing is conducted to see the *R-Square value* of the research model. The structural model is evaluated using the *R-Square value* for the dependent construct. (Ghozali and Latan, 2015). The PLS structural model can be assessed based on *the R-Square* on each latent variable. The *R-Square value* in data processing in this study is as follows.

Table 3. R-Square

R-Square				
0.672				

Source: SmartPLS Output (2025)

The managerial performance dimension has an *R-Square* of 0.672, which shows that the variability of the managerial performance construct can be explained by the management accounting information system, environmental uncertainty, and business strategy by 67.2%.

Hypothesis Discussion

The Influence of Management Accounting Information Systems on Managerial Performance

Table 4. Hypothesis Test Results					
Hypothesis		Original	T	P value	Information
		Sample	Statistics		
H1	SIAM -> KM	0.311	5,576	0.007	Accepted

Source: SmartPLS Output (2025)

The results of the first hypothesis test (H1) prove that the management accounting information system (MIS) has a positive and significant effect on managerial performance, with a parameter coefficient of 0.311. This value indicates a significant strength of the relationship between the two variables, where the higher the coefficient value, the greater the positive effect of MIS on managerial performance.

These findings reinforce the crucial role of SIAM in organizations as a means of collecting and managing information effectively. This system is able to produce integrated,

relevant, and timely information, thus becoming an important basis in the managerial decision-making process. The quality of information produced by SIAM allows managers to make more accurate and accountable decisions, which ultimately have a positive impact on improving managerial performance.

This study is in line with previous findings from Hammad, Jussoh, and Ghozali (2013), Lempas et al. (2014), and Mulyana and Zidnie Tadzkia (2017) which consistently show the positive influence of SIAM on managerial performance. These results further strengthen empirical evidence on the importance of effective SIAM implementation in supporting the achievement of organizational goals through improved managerial performance.

The Influence of Environmental Uncertainty on Managerial Performance

Source: SmartPLS Output (2025)

The second hypothesis (H2) which states that environmental uncertainty has a positive effect on managerial performance is empirically proven. The results of the analysis show a parameter coefficient of 0.373, indicating a significant positive effect. This finding is in line with the concept of Frestilia (2013) which defines environmental uncertainty as a condition of difficulty in predicting external changes, where good predictive ability will reduce the level of uncertainty.

Environmental uncertainty turns out to play a dual role not only as a challenge, but also as a driver of improving managerial performance. On the one hand, this condition triggers managerial innovation, creativity, and adaptability. On the other hand, managers who are able to manage risks and take advantage of opportunities from uncertainty tend to achieve better performance through operational efficiency and achievement of strategic goals.

This finding strengthens previous research by Ilmy et al. (2021) and Putri (2014), while also confirming that in a dynamic business environment, uncertainty can actually be a catalyst for improving managerial performance when responded to strategically.

The Influence of Management Accounting Information Systems on Managerial Performance with Business Strategy as a Moderating Variable

Table 6 Hypothesis Test Results					
Hypothesis		Original	T Statistics	P value	Information
		Sample			
Н3	SB*SIAM ->	0.041	0.366	0.624	Rejected
	KM				-

Source: SmartPLS Output (2025)

The results of the third hypothesis test (H3) show that business strategy does not provide a significant moderating effect on the relationship between management accounting information systems and managerial performance, with a parameter coefficient of 0.041 indicating a very weak positive effect. This finding reveals several important implications. First, the weak moderating effect is thought to be caused by the implementation of business strategies that are not optimal in manufacturing companies in Tangerang Regency, both in terms of the effectiveness of implementation and the suitability of the chosen strategy to the company's needs.

Second, these results contradict contingency theory which states that business strategy should play an important role in improving managerial performance amidst business competition. The discrepancy between theory and empirical findings indicates a gap between theoretical expectations and the reality of business practices in the field. The results of this study are in line with previous findings from Amalia (2022) and Melasari (2018) who also found no significant moderating effect of business strategy in a similar context.

The weak influence of this moderation can be interpreted through several perspectives. From the implementation side, there may be ineffectiveness in implementing the formulated business strategy. From the strategy formulation side, it could be that the chosen strategy is not in accordance with the characteristics of the company or the business challenges faced. These findings provide valuable input for business practitioners to re-evaluate the effectiveness of their business strategies, as well as for the development of theories to consider contextual factors that may influence the relationship between these variables.

The Influence of Environmental Uncertainty on Managerial Performance with Business Strategy as a Moderating Variable

Source: SmartPLS Output (2025)

Hypothesis (H4) in this study states that there is no influence of environmental uncertainty on managerial performance with business strategy as a moderating variable. The parameter coefficient value (*original sample*) of the business strategy variable moderating the relationship between environmental uncertainty and managerial performance is -0.091, which is far from 1 so it can be said to have a negative relationship, the lower the *original sample value* will indicate a negative influence on the influence of the business strategy variable moderating the relationship between environmental uncertainty and managerial performance.

This shows that the implementation of ineffective business strategies can make it difficult for managers to predict environmental uncertainty in improving company performance. The uncertainty of the business environment will have an impact on the selection of strategies aimed at carrying out the company's business activities. One form of impact felt from environmental uncertainty is the fluctuation in the company's product sales because managers are unable to determine the right strategy, as a result consumer demand for the products produced by the company weakens (Malik, 2020).

Environmental uncertainty is a factor that can affect managerial performance in estimating conditions that will occur in the future. The lower the level of environmental uncertainty experienced by the company will further improve the managerial performance of manufacturing companies in Tangerang Regency and the better the planning of business strategy application will improve managerial performance.

The results of this study support research conducted by Tanjungsari (2009) which shows that the defender business strategy has not been proven to be significantly able to reduce the negative impact of environmental uncertainty on company performance.

Conclusion

Based on the test results and discussions that have been described previously, it can be concluded that the management accounting information system has a positive and significant effect on managerial performance, as well as environmental uncertainty which also shows a

positive and significant effect on managerial performance. However, business strategy is unable to moderate the relationship between the management accounting information system and environmental uncertainty on managerial performance. This finding indicates that managerial performance in the context of MSME manufacturing companies in Bekasi City is more directly influenced by the effectiveness of the information system and environmental dynamics than by business strategy as a moderating variable. In line with this conclusion, suggestions that can be given include that further research be conducted through a survey approach and direct interviews with respondents, so that the data obtained can better represent real conditions in the field. In addition, for companies, especially the MSME manufacturing sector in Bekasi City, the results of this study are expected to be used as a strategic reference in improving managerial performance, especially through strengthening the management accounting information system and adaptation to the environmental uncertainty faced.

References

- Abernethy, M. A., & Lillis, A. M. (1995). The impact of manufacturing flexibility on management control system design. *Accounting, Organizations and Society*, 20(4), 241–258.
- Arif, M. E., & Anggraini, R. (2023). Strategi Bisnis. Malang: Universitas Brawijaya Press.
- Atkinson, A. A., et al. (1995). *Management Accounting*. Englewood Cliffs, New Jersey: Prentice Hall Inc.
- Bisbe, J., & Otley, D. (2004). The effect of the interactive use of management control system on innovation. *Accounting, Organizations and Society*, 26, 709–737.
- Desmiyawati. (2010). Pengaruh desentralisasi, ketidakpastian lingkungan dan sistem akuntansi manajemen terhadap kinerja manajerial. *Jurnal Pendidikan Ekonomi dan Bisnis*, 2(3), 346–354.
- Djaslim, S. (1999). Manajemen Strategi & Kebijakan Perusahaan. Bandung: Linda Karya.
- Dwirandra. (2006). Pengaruh interaksi ketidakpastian lingkungan, desentralisasi, dan agregat informasi akuntansi manajemen terhadap kinerja manajerial. *Jurnal Penelitian Fakultas Ekonomi Universitas Udayana*, *Bali*.
- Efandiana, L. (2011). Analisis faktor-faktor yang berpengaruh terhadap kinerja intellectual capital pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia (BEI). Skripsi. Universitas Diponegoro, Semarang.
- El Farabi, M. N. (2020). Ketidakpastian lingkungan organisasi berimplikasi terhadap pemilihan sistem pengendalian manajemen. *Journal of Applied Business and Economics (JABE)*, 7(2).
- Eriani, I. D., & Fanani, Z. (2019). Ketidakpastian lingkungan dan kinerja manajerial: Peran mediasi sistem akuntansi manajemen. *Jurnal Reviu Akuntansi dan Keuangan*, 9(3).
- Ernawati. (2005). Pengaruh strategi bisnis dan ketidakpastian lingkungan terhadap hubungan antara informasi broad scope sistem akuntansi manajemen dan kinerja manajerial. *Journal of Accounting and Investment*, 6(1).
- Febrianti, R., & Fitri, Y. (2019). Pengaruh karakteristik informasi sistem akuntansi manajemen, ketidakpastian lingkungan, dan desentralisasi terhadap kinerja manajerial (Studi empiris pada perusahaan BUMN di Banda Aceh). *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi (JIMEKA)*, 4(3), 456–470.
- Firdausy, A. N., et al. (n.d.). Interaction of environmental uncertainty, characteristics of management accounting information systems and decentralization on managerial performance. *Journal of Applied Business, Taxation and Economics Research* (*JABTER*), 2(2), 169–187.

- Frestilia, N. (2013). Pengaruh pemanfaatan teknologi informasi, karakteristik informasi sistem akuntansi manajemen, dan ketidakpastian lingkungan terhadap kinerja manajerial. *Jurnal Akuntansi*, 1(1).
- Ghozali, I. (2014). Metode Kerja PLS. Semarang: Badan Penerbit Universitas Diponegoro.
- Ghozali, I. (2014). Smart PLS 3.0. Semarang: Badan Penerbit Universitas Diponegoro.
- Hammad, S. A., et al. (2013). Decentralization, perceived environmental uncertainty, managerial performance and management accounting system information in Egyptian hospital. *International Journal of Accounting and Information Management*, 21(4), 314–330.
- Handayani, S., & Hariyati. (2014). Pengaruh karakteristik sistem informasi akuntansi manajemen: Broad scope, timeliness, aggregated, dan integrated terhadap kinerja manajerial UMKM (Studi pada UMKM di Desa Widoro, Kab. Sidoarjo). *Jurnal Akuntansi*, 5(2).
- Herawati, T., & Laela Sari, Y. F. (2015). Pengaruh ketidakpastian lingkungan dan karakteristik informasi akuntansi manajemen terhadap kinerja manajerial. *STAR Study & Accounting Research*, 12(1).
- Ingkriwang, O. F. (2013). Pengaruh desentralisasi dan sistem akuntansi manajemen terhadap kinerja manajer dealer di Manado. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 1(3).
- Ilmy, M. N., et al. (2021). Pengaruh sistem akuntansi manajemen dan ketidakpastian lingkungan terhadap kinerja manajerial pada PT. Adira Dinamika Multi Finance Tbk Kantor Cabang Jayapura. *Invoice: Jurnal Ilmu Akuntansi*, 3(1).
- Irawati, A. (2018). Pengaruh karakteristik sistem informasi akuntansi manajemen terhadap kinerja manajerial dengan desentralisasi sebagai variabel moderating. *Jurnal Akuntansi & Keuangan*, 9(1), 34–53.
- Junaid, A., et al. (2022). Pengaruh supply chain management dan strategi bisnis dengan ketidakpastian lingkungan sebagai variabel moderasi. *Jurnal Mirai Management*, 7(3), 684–695.
- Komalasari, R. (2017). Pengaruh ketidakpastian lingkungan terhadap karakteristik sistem informasi akuntansi manajemen serta dampaknya pada kinerja manajerial: Studi pada Kopaga CV. Karya Pratama Gemilang. *JASA (Jurnal Akuntansi, Audit dan Sistem Informasi Akuntansi)*, 1(4), 16–36.
- Laksmana, A., & Muslichah. (2002). Pengaruh teknologi informasi, saling ketergantungan, karakteristik sistem akuntansi manajemen terhadap kinerja manajerial. *Jurnal Akuntansi dan Keuangan*, 4(2), 106–125.
- Lempas, I., et al. (2014). Desentralisasi dan sistem akuntansi manajemen terhadap kinerja manajer pada PT. Sinar Galesong Prima Manado. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 2(1).
- Listeria, L. (2009). Pengaruh karakteristik informasi sistem akuntansi manajemen yang bersifat broad scope, desentralisasi dan ketidakpastian lingkungan terhadap kinerja manajerial. Skripsi. Fakultas Ekonomi, Universitas Negeri Padang.
- Mahoney, T. A., Jerdee, T. H., & Caroll, S. J. (1963). *Development of managerial performance: A research approach*. Cincinnati: South Western.
- Mariezta, F., & Siahaan, C. G. A. (2016). Pengaruh kontrol otoritas dan strategi bisnis terhadap sistem informasi akuntansi manajemen (SIAM) pada perusahaan farmasi di Palembang. *Jurnal Akuntansi*, 6(2), 185–196.
- Marina, A. (2009). Pengaruh sistem akuntansi manajemen terhadap kinerja manajerial dengan ketidakpastian lingkungan dan desentralisasi sebagai variabel moderating. *Jurnal Akuntansi dan Investasi (JAI)*, 5(2), 131–141.

- Maskudi, K. (2014). Pengaruh budaya organisasi, teknologi informasi dan sistem informasi akuntansi manajemen dalam meningkatkan kinerja manajerial. *Media Ekonomi dan Manajemen*, 29(1).
- Miles, R. E., Snow, C. C., Meyer, A. D., & Coleman, H. J. (1978). Organizational strategy, structure, and process. *Academy of Management Review*, 3(3), 546–562.
- Novennia, R. D., & Andayani, W. (2022). Pengaruh budaya organisasi, strategi bisnis dan ketidakpastian lingkungan terhadap kualitas sistem informasi akuntansi manajemen. *Reviu Akuntansi, Keuangan, dan Sistem Informasi*, 1(1).
- Otley, D. T. (1980). The contingency theory of management accounting: Achievement and prognosis. In G. Emmanuel, D. Otley & K. Merchant (Eds.), *Readings in Accounting for Management Control* (pp. 83–106). Boston, MA: Springer.
- Paylosa, F. (2014). Pengaruh strategi bisnis dan desentralisasi terhadap hubungan antara pemanfaatan informasi sistem akuntansi manajemen dan kinerja manajerial. *Jurnal Akuntansi*, 2(1). Fakultas Ekonomi, Universitas Negeri Padang.
- Putri, L. K. (2014). Pengaruh ketidakpastian lingkungan dan strategi bisnis terhadap kinerja manajerial dengan karakteristik sistem akuntansi manajemen sebagai variabel intervening (Studi empiris pada perusahaan jasa perhotelan di Kota Padang dan Kota Bukittinggi). *Jurnal Akuntansi*, 2(2).
- Radianto, W. E. D. (2021). *Strategi dalam konteks pengendalian manajemen*. Surabaya: Universitas Ciputra.
- Rumapea, M., et al. (2018). Pengaruh penerapan sistem informasi akuntansi manajemen, metode pengukuran kinerja dan sistem penghargaan terhadap kinerja manajerial pada Rumah Sakit Estomihi Medan. *Jurnal Manajemen Informatika & Komputerisasi Akuntansi*, 2(1).
- Senduk, J. M., et al. (2017). Pengaruh desentralisasi, strategi bisnis dan pemanfaatan informasi sistem akuntansi manajemen terhadap kinerja manajerial pada PT Bank Mandiri di Manado. *Jurnal Riset Akuntansi Going Concern*, 12(1), 73–82.
- Septiani, R. (2017). Pengaruh teknologi informasi dan strategi bisnis terhadap kualitas sistem informasi akuntansi manajemen (Studi pada PT. Len Industri Persero). *JASA (Jurnal Akuntansi, Audit dan Sistem Informasi Akuntansi)*, 1(3).
- Setiawan, A. S. (2012). Ketidakpastian lingkungan memoderasi hubungan antara sistem informasi akuntansi manajemen terhadap kinerja manajerial. *Jurnal Akuntansi*, 16(1), 99–111.
- Sigilipu, S. (2013). Pengaruh penerapan informasi akuntansi manajemen dan sistem pengukuran kinerja terhadap kinerja manajerial. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 1(3).
- Suryani. (2019). Pengaruh karakteristik informasi sistem akuntansi manajemen terhadap kinerja manajerial dengan ketidakpastian lingkungan dan desentralisasi sebagai variabel moderating. *Jurnal Akuntansi dan Keuangan (JAK)*, 8(1).
- Wiryana, L., & Augustine, Y. (2014). Pengaruh karakteristik informasi akuntansi manajemen terhadap kinerja manajerial dengan variabel moderasi strategi bisnis, perceived environmental uncertainty (PEU), ketidakpastian tugas dan desentralisasi. *e-Journal Magister Akuntansi Trisakti*, 1, 155–180.
- Yubiharto, Y. (2003). Pengaruh ketidakpastian lingkungan dan strategi bisnis terhadap kinerja manajerial dengan karakteristik sistem akuntansi manajemen sebagai variabel intervening (Pada industri perbankan). Disertasi, Program Pascasarjana Universitas.