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How Do Environmental Uncertainty, Management Accounting Systems, and Delegated Authority Influence Managerial Performance?

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ABSTRACT: This study examines how environmental uncertainty, management accounting systems, and delegated authority influence managerial performance within the context of modern retail operations. The research was conducted at PT Indomarco Prismatama Bali, employing a quantitative approach and using primary data collected through questionnaires distributed to 108 franchise-based Indomaret store managers in Denpasar and Badung. Data were analysed using the Partial Least Squares (PLS) method with SmartPLS software. The results reveal that environmental uncertainty does not have a significant effect on managerial performance. In contrast, both management accounting systems and delegated authority demonstrate positive and significant effects. These findings suggest that internal organisational mechanisms play a more crucial role in enhancing managerial effectiveness than external environmental conditions. Strengthening managerial competence in the utilisation of management accounting information and clarifying the delegation of authority can contribute to more efficient store-level decision-making. The study recommends that the company improves training related to accounting information systems and reinforces clear authority structures to support managerial performance across retail outlets.

KEYWORDS: environmental uncertainty; management accounting systems; delegated authority; managerial performance; modern retail.

INTRODUCTION

Managerial performance plays a crucial role in determining the operational success and overall achievement of organisational objectives (Saha et al., 2024; Rumapea et al., 2018). The effectiveness of managers in planning, coordinating resources, and making strategic decisions is not only shaped by their individual competencies but is also influenced by internal structures and external conditions. One of the key external challenges is environmental uncertainty, which arises when managers perceive that the available information is insufficient to accurately predict future conditions (Kartika, 2020). Shifts in consumer preferences, technological developments, intensified competition, and regulatory changes may therefore disrupt managerial decision-making processes (Kenisah & Ho, 2024; Alwan & Maelah, 2024).

In such circumstances, the utilisation of Management Accounting Systems (MAS) becomes increasingly essential. Relevant and timely accounting information supports planning, control, and problem-solving at various organisational levels (Mia & Chenhall, 1994; Fitrios et al., 2018; Etim, 2019). Furthermore, the ability of managers to utilise delegated authority effectively is vital in enhancing responsiveness and the quality of operational decisions (Metcalfe et al., 2023; Galleazzo et al., 2021; Hong, 2020). Delegation that is appropriately structured allows managerial discretion to function as a mechanism for adaptive and efficient store-level management.

PT Indomarco Prismatama Bali, which manages the Indomaret retail network, operates in an environment characterised by post-pandemic economic uncertainty, intensifying competition, and shifting consumer behaviour (BPS Bali, 2022). In franchise-based stores, the degree of owner involvement varies, potentially influencing how store managers utilise their authority, and consequently affecting their performance. Previous studies indicate that many retail managers have not yet optimised the use of authority nor fully utilised MAS for strategic decision-making (Kuncoro, 2021; Horngren et al., 2018).

Although prior research has examined the influence of environmental uncertainty, MAS, and authority utilisation on managerial performance, the findings have been inconsistent across sectors and organisational contexts (Pedroso & Gomes, 2024; Akuna et al., 2024; Kurniawan, 2020; Suryani, 2019). Moreover, studies integrating these three variables simultaneously within the modern retail franchise sector, particularly in the Balinese context, remain limited. This study therefore seeks to analyse the influence of environmental uncertainty, management accounting systems, and delegated authority on managerial performance among Indomaret store managers in Denpasar and Badung. The findings are expected to provide practical implications for enhancing managerial effectiveness within franchise-based retail operations.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Contingency Theory posits that there is no single universal managerial approach applicable across organisations, as effectiveness depends on the alignment between organisational systems, strategies, and external environmental conditions (Lawrence & Lorsch, 1967). In highly uncertain environments, managers are required to exhibit adaptability when interpreting information and making strategic decisions (Nassou & Bennani, 2024; Sain et al., 2025). Environmental uncertainty arising from competition, technological change, regulatory shifts, and customer preferences encourages the adjustment of operational strategies and decision-making processes (Pires & Alves, 2022; Shafizadeh, 2024).

Previous studies generally suggest that dynamic environments stimulate managerial responsiveness and flexibility, which can improve managerial effectiveness (Kenisah & Ho, 2024; Alwan & Maelah, 2024). This positive association has been observed across various sectors, including energy and retail (Lin & Maenhout, 2019; Kurniawan, 2020; Suryani, 2019; Wahyuningsih et al., 2023). Therefore, environmental uncertainty is expected to increase managerial adaptability, which in turn enhances managerial performance.

H1: Environmental uncertainty has a positive influence on managerial performance.

Management Accounting Systems (MAS) provide relevant, accurate, and timely information that supports planning, control, and decision-making processes (Horngren et al., 2018; Chenhall & Morris, 1986). Under uncertain conditions, such information helps managers reduce ambiguity and evaluate alternative actions more effectively. MAS contributes to efficiency improvements, profit enhancement, transparent cost structures, and streamlined decision-making (Etim, 2019). The alignment between system characteristics and organisational needs has been shown to strengthen managerial capabilities (Pedroso & Gomes, 2024).

Empirical evidence indicates that MAS usage positively contributes to managerial performance across various organisational contexts (Fitrios et al., 2018; Pires & Alves, 2022; Akuna et al., 2024; Massicotte & Hendri, 2021; Amri, 2021; Wahyuningsih et al., 2023). Thus, appropriately designed MAS facilitates more accurate and effective managerial decisions.

H2: Management accounting systems have a positive influence on managerial performance.

Contingency Theory also highlights the importance of the fit between organisational structure, authority distribution, and environmental conditions in determining managerial effectiveness (Lawrence & Lorsch, 1967; Donaldson, 2023). Delegated authority enables managers to respond more rapidly and appropriately to situational demands, supporting innovation, team motivation, and efficiency (Metcalfe et al., 2023). When managers are granted sufficient discretion, they are more capable of performing essential managerial functions such as planning, organising, directing, and controlling.

Prior research demonstrates that well-structured delegation improves decision-making speed and quality, particularly in competitive business environments (Galleazzo et al., 2021; Hong, 2020; Alphun et al., 2023; Keum & See, 2017; Supriyono, 2019; Abdillah & Jogiyanto, 2019; Rama, 2023; Muhjizin, 2019). In the retail sector, effective use of authority has been associated with higher managerial productivity and store performance (Metcalfe et al., 2023).

H3: Delegated authority has a positive influence on managerial performance.

METHODS

This study employs a quantitative research approach to examine the influence of environmental uncertainty, management accounting systems, and delegated authority on managerial performance at PT Indomarco Prismatama Bali. Data were collected through the administration of questionnaires to all 108 franchise-based Indomaret store managers located in Badung Regency and Denpasar City, with the criteria that each store had been operating for more than three years and the store manager had held their position for at least one year. Given the relatively small and accessible population, a total sampling technique was applied. The variables examined in this study consist of environmental uncertainty (X1), management accounting systems (X2), delegated authority (X3), and managerial performance (Y), which were measured using a Likert scale (1–5) based on indicators adapted from previous empirical studies. Data analysis was conducted using Structural Equation Modelling (SEM) with the Partial Least Squares (PLS) method via SmartPLS 4.0, involving the assessment of the outer model (validity and reliability), the inner model (R-square and Q-square), and hypothesis testing based on t-statistics and significance levels. The research was carried out from January to August 2025, with the limitation that it does not include other external determinants of managerial performance, such as organisational culture, leadership style, or macroeconomic influences.

RESULT AND DISCUSSION

Results of Partial Least Squares (PLS) Analysis

Data analysis was conducted using the Partial Least Squares (PLS) method to evaluate the relationships among the variables examined in this study, namely environmental uncertainty, management accounting systems, delegated authority, and managerial performance. PLS was selected because it is suitable for models involving multiple indicators and allows simultaneous estimation of relationships among latent variables. Additionally, PLS can be applied to relatively small sample sizes and does not require assumptions regarding data distribution, making it appropriate for analysing managerial performance factors in PT Indomarco Prismatama Bali.

The PLS analysis consisted of two main stages: the evaluation of the outer model and the evaluation of the inner model. The outer model assessment aimed to determine the validity and reliability of indicators used to measure each latent variable, while the inner model assessment was used to examine the relationships among latent variables and the significance of their effects. The results from these analyses provide an overview of the extent to which environmental uncertainty, management accounting systems, and delegated authority influence managerial performance at PT Indomarco Prismatama Bali.

Evaluation of the Measurement Model (Outer Model)

Convergent Validity

Convergent validity was assessed by examining the loading values of each indicator. Indicators are considered to have adequate validity if their loading values exceed 0.70 (Ghozali, 2011). Indicators with loading values below this threshold are removed from the model.

Table 1. Results of Outer Model Analysis

Latent Variable	Number of Valid Indicators	Outer Loading Range	AVE Value	Description
Environmental Uncertainty (X1)	4	0.895 – 0.978	0.866	All indicators valid and meet convergent validity criteria
Management Accounting Systems (X2)	8	0.829 – 0.954	0.824	All indicators valid and meet convergent validity criteria
Delegated Authority (X3)	5	0.809 – 0.973	0.822	All indicators valid and meet convergent validity criteria
Managerial Performance (Y)	11	0.830 – 0.969	0.818	All indicators valid and meet convergent validity criteria

Primary Data, 2025

Based on these results, all indicators for the four latent variables show outer loading values above 0.70 and AVE values above 0.50. Therefore, each construct meets the criteria for convergent validity as recommended by Hair et al. (2019).

Discriminant Validity

Discriminant validity ensures that each latent construct is distinct from the others. A construct is considered to have adequate discriminant validity if the loading value of each indicator is highest when associated with its respective construct compared to other constructs (Supriyati, 2021). The discriminant validity results using the Fornell–Larcker criterion are as follows:

Table 2. Discriminant Validity (Fornell–Larcker Criterion)

	Environmental Uncertainty	Managerial Performance	Management Accounting Systems	Delegated Authority
Environmental Uncertainty	**0.931**			
Managerial Performance	0.984	**0.905**		
Management Accounting Systems	0.986	0.995	**0.908**	
Delegated Authority	0.972	0.988	0.983	**0.907**

Primary Data, 2025

The results indicate that each construct demonstrates acceptable discriminant validity.

Construct Reliability and Validity

How Do Environmental Uncertainty, Management Accounting Systems, and Delegated Authority Influence Managerial Performance?

Reliability testing was conducted to assess the consistency of the measurement instruments. Constructs are considered reliable if Cronbach's alpha and composite reliability values exceed 0.70 (Hair et al., 2019).

Table 3. Construct Reliability and Validity

Variable	Composite Reliability (CR)	AVE	Description
Environmental Uncertainty	0.963	0.866	Reliable
Management Accounting Systems	0.974	0.824	Reliable
Delegated Authority	0.958	0.822	Reliable
Managerial Performance	0.980	0.818	Reliable

Primary Data, 2025

All constructs demonstrate composite reliability values above 0.70 and AVE values above 0.50, indicating that the measurement instruments used in this study are consistent and valid for further structural analysis.

Structural Equation Model (Inner Model)

The structural model is developed based on the theoretical framework in order to analyse the relationships between the exogenous and endogenous variables. The evaluation of the inner model was carried out using several procedures, including the coefficient of determination (R^2), effect size (F^2), and hypothesis testing.

Coefficient of Determination (R^2)

The R^2 value indicates the extent to which the endogenous variable can be explained by the exogenous variables. According to Chin, as cited in Lukaraja et al. (2020), an R^2 value above 0.67 signifies a strong model, values between 0.33 and 0.67 indicate moderate explanatory power, and values between 0.19 and 0.33 indicate weak explanatory power.

Table 4. R-Square and F-Square Results

Endogenous Variable	Predictor	R^2	F^2
Managerial Performance (Y)	Environmental Uncertainty (X1)	0.889	0.021
	Management Accounting Systems (X2)	–	0.963
	Delegated Authority (X3)	–	0.377

Primary Data, 2025

The R^2 value of 0.889 indicates that 88% of the variance in managerial performance is explained by environmental uncertainty, management accounting systems, and delegated authority. Thus, the model demonstrates strong explanatory power.

Effect Size (F^2)

The effect size (F^2) assesses the contribution of each exogenous variable to the endogenous variable. Values of 0.02, 0.15, and 0.35 indicate weak, moderate, and strong effects, respectively (Ghozali, 2015).

The results indicate that:

1) Environmental uncertainty has a weak effect on managerial performance (F^2 = 0.021).
2) Management accounting systems have a strong effect on managerial performance (F^2 = 0.963).
3) Delegated authority also has a strong effect on managerial performance (F^2 = 0.377).

Hypothesis Testing

Hypothesis testing was conducted using the bootstrapping procedure. A relationship is considered significant when the t-statistic exceeds 1.96 at a significance level of 5%.

Table 5. Direct Effect Hypothesis Testing Results

Relationship	Path Coefficient (β)	t-statistic	p-value	Description
Environmental Uncertainty → Managerial Performance	0.073	1.054	0.292	Not significant
Management Accounting Systems → Managerial Performance	0.644	7.237	0.000	Significant positive
Delegated Authority → Managerial Performance	0.283	6.841	0.000	Significant positive

Primary Data, 2025

How Do Environmental Uncertainty, Management Accounting Systems, and Delegated Authority Influence Managerial Performance?

Environmental Uncertainty on Managerial Performance

The analysis indicates that environmental uncertainty does not have a significant influence on managerial performance. With a t-statistic of 1.054 (< 1.96) and a p-value of 0.292 (> 0.05), the effect is statistically insignificant. This suggests that fluctuations in economic conditions, regulatory changes, or competitive pressures do not directly affect managerial performance. One possible explanation is that managers may already have adaptive strategies and internal control mechanisms in place, enabling them to mitigate the impact of environmental uncertainty.

Management Accounting Systems on Managerial Performance

Management accounting systems have a significant positive effect on managerial performance, demonstrated by a t-statistic of 7.237 (> 1.96) and p-value of 0.000 (< 0.05). This finding indicates that the more effectively the management accounting system is utilised in planning, controlling, and decision-making processes, the better the resulting managerial performance. Relevant and timely information assists managers in strategy formulation, performance evaluation, and operational adjustments.

Delegated Authority on Managerial Performance

Delegated authority also exerts a significant positive influence on managerial performance, as shown by a t-statistic of 6.841 and p-value of 0.000. This means that the greater the autonomy and decision-making authority granted to store managers, the higher their managerial effectiveness. Appropriate delegation enhances responsibility, accelerates decision-making, and fosters a stronger sense of ownership, thereby improving efficiency and performance outcomes.

CONCLUSION

This study concludes that environmental uncertainty does not have a significant direct effect on managerial performance among franchise-based Indomaret store managers under PT Indomarco Prismatama Bali, indicating that existing internal routines and adaptive strategies may already buffer the impact of external fluctuations. In contrast, the management accounting system was found to have a significant positive influence on managerial performance, demonstrating that relevant, accurate, and timely information plays a critical role in supporting decision-making, performance evaluation, and operational planning. Delegated authority also showed a positive and significant effect, meaning that providing managers with autonomy and decision-making discretion enhances their effectiveness in managing store operations. Overall, the findings highlight that managerial performance in this context is shaped more strongly by internal organisational mechanisms—particularly information utilisation and authority empowerment—than by external environmental conditions.

Managerial Implications

The results of this study imply that PT Indomarco Prismatama Bali should prioritise strengthening the utilisation of management accounting systems by improving access to real-time operational information and enhancing managerial capability to interpret and apply such information effectively. Furthermore, to maximise managerial performance, the company should reinforce clear and well-structured delegation mechanisms that grant store managers sufficient autonomy to make operational decisions swiftly and responsibly. Strengthening competency development programmes, particularly in analytical skills, performance analysis, and strategic decision-making, will further support store managers in responding effectively to operational challenges and business dynamics. By focusing on these internal strengthening efforts, the organisation can enhance managerial effectiveness and maintain operational efficiency across its franchise network.

Future research may consider incorporating additional variables such as leadership style, organisational culture, employee motivation, or digital capability to provide a broader and more nuanced understanding of factors influencing managerial performance. Comparative studies across different regions or between franchise-operated and corporate-operated stores may also offer deeper insights into variations in managerial autonomy and operational outcomes. Additionally, employing mixed-method approaches that combine quantitative analysis with qualitative interviews could help uncover managerial reasoning patterns and contextual decision-making processes. Conducting longitudinal research is also recommended to capture how managerial performance evolves over time in response to organisational change, market shifts, and technological developments.

REFERENCES

1) Abdillah, & Jogiyanto. (2019). Pengaruh Pendelegasian Wewenang dan Komitmen Organisasi terhadap Kinerja Manajerial pada Organisasi Pemerintah Daerah (OPD) Kota Tangerang. Jurnal Riset Manajemen, Universitas Muhammadiyah Tangerang.
2) Akuma, J. K., Tackie, G., Idun, A. A.-A., & Kwaning, E. A. (2024). Management accounting practices and sustainability performance of manufacturing firms in Ghana. American Journal of Industrial and Business Management, 14, 214–241. https://doi.org/10.4236/ajibm.2024.142011

3) Alphun, C., Türker, N., & Sainaghi, R. (2023). Decentralized Decision Authority, Balanced Scorecard and Managerial Satisfaction. Proceedings of ECRM 2023.
4) Alwan, A. R., & Maelah, R. (2024). Systematic review of environmental uncertainty, environmental management accounting and sustainable performance. Journal of Ecohumanism, 3(7), 3262–3270. https://doi.org/10.62754/joe.v3i7.4453
5) APRINDO. (2023). Hasil Survei Kewenangan Manajer Ritel. Asosiasi Pengusaha Ritel Indonesia.
6) Badan Pusat Statistik (BPS) Bali. (2020). Tingkat Pertumbuhan Ekonomi Bali 2020–2023. https://www.bps.go.id
7) Chenhall, R. H., & Morris, D. (1986). The Impact of Structure, Environment, and Interdependence on the Perceived Usefulness of Management Accounting Systems. The Accounting Review, 61(1), 16–35.
8) Donaldson, L. (2023). The resurgence of contingency theory in organizational research. Academy of Management Perspectives, 37(1), 34–49. https://doi.org/10.5465/amp.2021.0098
9) Fitrios, R., Susanto, A., Soemantri, R., & Suharman, H. (2018). The Influence of Environmental Uncertainty on Accounting Information System Quality. Journal of Theoretical and Applied Information Technology, 96(21), 7164–7174.
10) Galeazzo, A., Furlan, A., & Vinelli, A. (2021). The role of employees' participation and managers' authority on continuous improvement. International Journal of Operations & Production Management, 41(13), 34–64. https://doi.org/10.1108/IJOPM-07-2020-0482
11) Ghozali, I., & Latan, H. (2015). Konsep, Teknik, dan Aplikasi SmartPLS 3.0. Universitas Diponegoro.
12) Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report PLS-SEM. European Business Review, 31(1), 2–24.
13) Hong, B. (2020). Power to the Outsiders. Strategic Management Journal. https://doi.org/10.1002/smj.3182
14) Horngren, C. T., Datar, S. M., & Rajan, M. V. (2018). Cost Accounting: A Managerial Emphasis. Pearson.
15) Kenisah, M. L., & Ho, Y. C. (2024). Environmental uncertainty and strategic management accounting in SMEs. International Journal of Academe and Industry Research, 5(2), 48–69.
16) Kesumawati, N. K. A., Putri, I. M. A. D., & Dwirandra, A. (2019). The role of environmental uncertainty and decentralization in management accounting systems. International Research Journal of Management, IT and Social Sciences, 6(3), 37–45.
17) Keum, D. D., & See, K. E. (2017). The influence of hierarchy on idea generation. Organization Science. https://doi.org/10.1287/orsc.2017.1142
18) Kuncoro, M. (2021). Pemanfaatan Sistem Akuntansi Manajemen pada Usaha Ritel di Indonesia. Jurnal Akuntansi Manajemen, 12(3), 45–60.
19) Lawrence, P. R., & Lorsch, J. W. (1967). Organization and Environment. Harvard University Press.
20) Linn, T., & Maenhout, B. (2019). The impact of environmental uncertainty on supply chain performance. Agricultural and Food Economics, 7(11).
21) Malinda, O., Dewi, F. G., & Gamayuni, R. R. (2019). Effect of incentives and non-financial performance on managerial performance. International Research Journal of Business Studies, 12(1), 41–54.
22) Massicotte, S., & Henri, J.-F. (2021). The use of management accounting information by boards. The British Accounting Review, 53, 100953.
23) Metcalfe, R. D., Sollaci, A. B., & Syverson, C. (2023). Managers and productivity in retail. Working Paper, University of Chicago.
24) Mia, L., & Chenhall, R. H. (1994). The usefulness of MAS under environmental uncertainty. Accounting, Organizations and Society, 19(1), 1–28.
25) Nassou, Y., & Bennani, Z. (2024). Contingency Theory and performance measurement systems. European Journal of Arts, Humanities and Social Sciences, 1(3), 183–187.
26) Pedroso, E., & Gomes, C. F. (2024). Interrelationships between MAS and managerial performance. SN Business & Economics, 4, 102.
27) Pires, R., & Alves, M.-C. G. (2022). Environmental uncertainty and performance: A contingency approach. Economies, 10, 211.
28) Shafizadeh, H. (2024). Decision-making under uncertainty. Journal of Resource Management and Decision Engineering, 3(1),4–10.
29) Sugiyono. (2019). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Alfabeta.
30) Suryani, S. (2019). Desentralisasi dan Sistem Akuntansi Manajemen terhadap Kinerja Manajerial. Jurnal Ilmu Manajemen, Universitas Sam Ratulangi.
31) Wahyuningsih, E., Sastraningsih,E., & Amrizal, G. (2023). Environmental Uncertainty, MAS, and Managerial Performance in Hospitality. Management Studies and Entrepreneurship Journal, 4(2), 1749–1759.