

# The Effect of Broad Scope, Timeliness, Aggregation and Integration on Managerial Performance at "POS Indonesia" in Lombok, Indonesia

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**Abstract.** This study aims to analyse the effect of the characteristics of management accounting information systems in terms of broad scope, timeliness, aggregation, and integration aspects on managerial performance. The object used in this study is POS Indonesia in Lombok, with a total population of 145 employees. The sampling technique used purposive sampling; as many as 110 employees were selected as respondents based on the specified criteria. This study uses quantitative methods with primary data types. It can be concluded from the four characteristics of the management accounting information system only the timeliness aspect that positively influences managerial performance. In contrast, broad scope, aggregation, and integration aspects do not affect organisational performance.

**Keywords:** Broad Scope; Timeliness; Aggregation; Integration; Managerial Performance.

## INTRODUCTION

Technology advances have provided a more comprehensive source of information and communication than humans already have. Even though the role of data has received less attention in recent decades, the need for information is critical, one of which is for companies where information will significantly assist company managers in creating success in managerial performance by utilising the resources they have to be able to achieve company goals.

Managerial performance can explain conditions that must be known and informed to certain parties to determine the level of achievement of the results of a business entity that is being run. Managerial performance in the organisation is one of the answers to the success or failure of the organisational goals that have been set. This aligns with the opinion [1], which explains that managerial performance is an achievement or workability achieved after carrying out personal or group tasks, functions and responsibilities in company operations. In line with the opinion [2] that the nature of managerial performance (e.g. negotiating, recruiting, training, innovating, and

communicating with managers) significantly affect the importance of information because every administrative job has specific information needs, and there is no order or systematic. Managerial performance can also explain how far a manager carries out management functions based on indicators consisting of planning, investigation, coordination, monitoring evaluation, staff selection, negotiation and representation [3].

One of the results of the development of information technology that organisations widely use to carry out their operational activities is an information system. A successful performance within the company is also supported by information systems used in business. According to [4] an information system is an activity of collecting, processing, storing, and analysing to support decision-making and control within an organisation. Authors [5] state that the success of a company's information system depends on how the system is run, the ease of the system for users, and the utilisation of the technology used. Information systems will affect how organisations make decisions, plan, and manage all parts of the organisation.

The management accounting information system characteristics in this study as a system that plays a role in helping predict the consequences that may occur for several alternative actions taken in various activities. This is supported by research conducted by [6], which shows the results that the characteristics of management accounting information systems (broad scope, timeliness, aggregation, and integration) influence managerial performance because they greatly assist company managers in making decisions for the progress of the company in the future, which will come. The characteristics of the management accounting information system available in the organisation will be effective if it supports information users' decision-making needs.

The grand theory used in this study is the Contingency Theory, by supporting the use of Management Accounting Information System Characteristics at PT POS Indonesia (Persero) in Lombok in making decisions by assessing Managerial Performance. The characteristics of POS are that there are four dimensions. First, Broad scope is the research variable used in this study which has three sub-dimensions: focus, quantification and time. Contingency theory can determine whether the reliability of the management accounting information system will always affect each condition.

Second is timeliness, the second variable used in this study, which means it can be used to see the ability of managers to respond appropriately and provide feedback on decisions to be made by looking at the aspects of reporting frequency and reporting speed. The use of contingency theory in this study strongly supports that the effectiveness of management accounting information systems influences the conditions that exist at PT POS Indonesia (Persero) in Lombok, which means that the reporting frequency and speed of reports produced are excellent, accurate and timely so that they can be used as a benchmark in decision making for the sustainability of the company so that it remains superior in competition.

Third, aggregation focuses on the results of temporal and functional sums such as sales areas, cost centres, marketing and production departments, and the information provided expressly for decision-making models. The use of contingency theory in this study is not able to support the success of POS or does not show results that

are in line with the aggregation variables for assessing managerial performance due to differences in managerial decision making which can occur due to miscommunication between managers at each branch of PT POS Indonesia in each district in Lombok. This is supported by research conducted by [7], which states that aggregation variables do not affect managerial performance.

Fourth, Integration namely can provide a role in coordinating the various types of decisions in the company by delivering performance improvement. The use of contingency theory in this study did not show results that the integration variable did not affect managerial performance at PT POS Indonesia (Persero) in Lombok, which means that the lack of coordination carried out by managers in a company will have an impact on the decisions that will be taken for future success, this is also supported by [8] which shows that there is no influence from integration variables on managerial performance.

The management accounting information system is an integral part of an organisational structure. The accounting information system refers to normative, meaning that the quality of the management accounting information system provides user satisfaction. Satisfaction felt by users (managers) is when management accounting information systems can assist in the decision-making process, both long-term and short-term decisions [9, 10].

## METHODS

The technique used in this study is a quantitative research method and primary data types. The population in this study consisted of 145 employees from each division at the PT POS Indonesia (Persero) in Lombok. One hundred ten respondents selected were the result of purposive sampling based on specific criteria or considerations. The data collection method uses questionnaires to each respondent directly and using calculations.

The characteristics of the respondents were 79 male employees (70.12%), and the remaining 31 female employees (29.85%). Based on educational background, respondents were dominated by S1-S3, namely 70 people (71.08%). Respondents with the old working category were dominated by 16-20 years, namely 63 people (52.23%). Respondents in the age category were dominated by respondents aged  $\geq 56$  years, as

many as 50 people (45.07%), and respondents in the assignment category were dominated by respondents whose assignments were in Mataram City, as many as 99 people (76.25).

Data analysis in this study is SEM analysis using the Partial Least Square (PLS) approach, which is carried out through two stages, namely: assessing the outer model or measurement model and then assessing the inner or structural model.

Evaluation of the measurement model is carried out to assess the validity and reliability of the model. External models with reflective indicators are evaluated through convergent and discriminate validity of indicators forming latent constructs and composite reliability as well as Cronbach alpha for block indicators by [11].

Convergent validity can be seen from the loading factor value, average variance extracted (AVE), and the Smart PLS output commonality. In con-

trast, discriminate fact can be seen from the cross-loading and will be the square of AVE and the correlation between latent constructs.

## RESULTS AND DISCUSSION

From the production of the analysis above, it can be seen that the AVE values of all constructs produce a loading factor value of  $> 0.50$ , which means that all construct indicators are valid and meet the requirements of convergent validity.

From the output above, it can be seen that the composite reliability value produced by all constructs is excellent, above 0.70, so it can be concluded that all construct indicators are reliable and fulfil the reliability test.

Table 1 – Outer Model Results

Variable	Indicator	Scale	Loading Factor	Q statistics	AVE/T score	CR/VIF
Broad Scope	B1	Formative	0.811	6,256	0.761899	0.927
	B2		0.785	5,200		
	B3		0.946	7,760		
	B4		0.937	7,697		
Timeliness	T1	Formative	0.918	28,002	0.900199	0.964
	T2		0.952	35,870		
	T3		0.957	132,254		
Aggregation	A1	Formative	0.924	3,373	0.758838	0.956
	A2		0.884	2,929		
	A3		0.874	3,203		
	A4		0.918	3,371		
	A5		0.878	3,182		
	A6		0.735	3,147		
	A7		0.890	3,389		
Integration	I1	Formative	0.733	1,581	0.493644	0.704
	I2		0.945	1,799		
	I3		0.225	1,520		
Managerial Performance	M1	Formative	0.688	6,388	0.635822	0.931
	M2		0.778	6,212		
	M3		0.910	9,085		
	M4		0.766	6,997		
	M5		0.814	7,393		
	M6		0.524	4,541		
	M7		0.910	9,085		
	M8		0.910	9,085		

Assessment of the structural model with PLS begins by looking at the  $R^2$  value for each endogenous latent variable as the predictive power of

the structural model and changes in  $R^2$  values can be used to explain the effect of certain exogenous latent variables on endogenous latent variables, whether they have a substantive impact.

The statistical output results show that the resulting  $R^2$  value for the managerial performance variable is 0.135, meaning that the effect of the management accounting information system on organisational performance is 13.5%, and varia-

bles outside the research influence the remaining 86.5%. From the results of the structural model testing output, it can be seen that the influence value between the hypothesised variables can be broken down (Table 2).

Table 2 – Results of Structural Model Analysis

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T-Statistics
Broad Scope→Managerial Performance	0.210284	0.394806	0.511784	0.511784	0.410884
Timeliness→Managerial Performance	0.709889	0.414856	0.355404	0.355404	1.997416
Aggregation→Managerial Performance	-0.686408	-0.221487	0.566893	0.566893	1.210824
Integration→Managerial Performance	0.008103	-0.375686	0.481649	0.481649	0.016824

In this study, to determine the significance seen from the T-statistical value of the exogenous variables. The limit to support or not a hypothesis proposed is 1.96. So if the value of the T-statistic is less than 1.96, then the idea is rejected, and vice versa.

The output results show that of the four variables tested, only the timeliness variable influences managerial performance with a value 1.99. The other three variables do not deliver expected results affecting organisational performance.

The results of the first variable test show that the Broad Scope variable does not positively affect managerial performance. This is supported by the results of the SEM-PLS output test in Table 2, which shows that the results of the Broad Scope variable on organisational performance are 0.41, which means below 1.96 of the T-statistics value, which means H1 is rejected. The results of this study are consistent with the results of research conducted by [12, 13], which show that the Broad Scope variable does not positively affect managerial performance. This indicates that the Broad Scope of information originating from within and outside the company (economic, technological and market factors) does not affect sound or bad managerial performance, better known as information that pays attention to the form of formal policies that can explain the existence of an unequal distribution of Broad Scope characteristics.

The results of the second variable test show that the Timeliness variable positively influences managerial performance. This is supported by the results of the SEM-PLS output test, which shows that the results of the Timeliness variable on organisational performance are 1.99, which means above 1.96 of the T-statistics value, which means H2 is accepted. The use of contingency theory in this study can support the realisation of the effectiveness of implementing accounting information systems used by companies and according to [14] states that the success of a company's information system depends on how the system is run, the ease of the system for users, and the use of technology used.

The results of this study are consistent with the results of research conducted by [15], which show that the Timeliness variable has a positive effect on managerial performance. Precise information provided quickly, precisely, and accurately in the decision-making process is also timely. This shows that timeliness can provide useful answers to decisions taken to improve managerial performance within the company. The better, accurate and timely the information presented, the better the company's organisational performance.

The results of the third variable test show that the Aggregation variable does not positively affect managerial performance. This is supported by the results of the SEM-PLS output test in Table 4.4, which shows that the development of the Aggregation variable on organisational perfor-

mance is 1.21. This study's results align with research conducted by [7], which shows that the Aggregation variable does not positively affect managerial performance. This indicates that there is one reason why Aggregation information cannot influence organisational performance, namely because of differences in corporate decision-making. That the use of Aggregation information which provides a summary of information on functional areas can provide differences in decision-making with other units.

The results of the fourth variable test show that the Integration variable does not positively affect managerial performance. This is supported by the results of the SEM-PLS output test, which shows that the development of the Integration variable on organisational performance is 0.01, which means it is below 1.96 of the T-statistics value, which means H1 is rejected. The results of this study are consistent with research conducted by [8], which shows that the Integration variable does not positively affect managerial performance. This result differs from the theory presented by [16], which states that the benefits of

integrated information are felt important when managers face situations where they have to make decisions that will impact other units. At the same time, there is no significant influence from the Integration variable because the subjective answers from the results of the questionnaire filled in by the respondents are adjusted to the abilities of the respondents themselves.

## CONCLUSIONS

The characteristics of management accounting information systems' broad scope, integration, and aggregation have no positive effect on managerial performance. In contrast, the attributes of timeliness management accounting information systems positively affect organisational performance. This shows that the timeliness in producing the information managers need in doing their work, the better the managerial performance in the company.

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