

The Influence of Management Accounting Information Systems on Managerial Performance with Decentralization as Moderating Variables in PT. Perkebunan Nusantara II (Persero) Tanjung Morawa

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Abstract

This study aims to determine how much influence the management accounting information system has on managerial performance with decentralization as a moderating variable at PT. Perkebunan Nusantara II (Persero) Tanjung Morawa. This study uses quantitative associative methods and data collection in this study using primary data with 40 respondents. Data analysis techniques in this study using Smart PLS. The results show that management accounting information systems have an effect on managerial performance, and decentralization strengthens the effect of management accounting information systems on managerial performance.

Keywords

management accounting
information system;
managerial performance;
decentralization



I. Introduction

The managerial performance of a business unit can be known through the process of performance evaluation or performance appraisal, which is the periodic determination of the operational effectiveness of an organization, its parts of the organization, and its personnel based on predetermined targets, standards, and criteria. The indicators used to measure managerial performance are planning, investigation, coordination, evaluation, supervision, staff selection, negotiation, and representation (Bachtiar et al, 2019).

Performance is declared effective if the budget objectives are achieved and subordinates get the opportunity to be involved or participate in budget preparation and motivate subordinates, identify and negotiate with superiors regarding budget targets, accept budget agreements and implement them so as to avoid the negative impact of the budget, namely the criteria factor, management system.rewards and conflicts. Performance-based budgeting is a system that includes the preparation and measurement of performance as an instrument to achieve program goals and objectives. Performance is declared effective if the budget objectives are achieved and subordinates have the opportunity to be involved or participate in budget preparation and motivate subordinates, identify and negotiate with superiors regarding budget targets, accept budget agreements and implement them so as to avoid negative budget impacts, namely criteria factors, budgeting systems (reward)) and conflict(Sulastiningsih & Ambarwati, 2015).

Here it can be seen that one of the managerial performance indicators has not been carried out properly, namely the evaluation indicator, this can be seen from the budget in the following year which increased and did not make the previous year's realization as a guideline or reference for improvements in the coming year.

To improve managerial performance, it is necessary to have a match between the management accounting information system and the level of decentralization. Several factors affect managerial performance, one of which is the management accounting information system.

Management accounting information systems are formal procedures and systems that use information to maintain and provide alternatives to various company activities. Management accounting information systems that are useful based on managerial perceptions as decision makers include: broad scope, timeliness, aggregation and integration. One of the functions of the management accounting information system is as an important source of information to help managers control their activities, as well as reduce environmental uncertainty in an effort to achieve organizational goals by (Bachtiar et al, 2019).

In the management accounting information system, a phenomenon occurs, namely the timeliness indicator, which has not fully gone well because a manager or leader does not get information on problems that occur in the field when the incident takes place so that what should be followed up and given a decision by a leader is not. Therefore, the delivery of the desired information is not timely which can affect the manager's ability to respond to any events or problems and affect the quality of a manager in making decisions.

In addition, there are other factors that influence, namely decentralization. In a decentralized system, managers need more information for decision making. If the company has a high level of decentralization, it also needs to be supported by a reliable management accounting information system (Bachtiar et al, 2019).

With decentralization, managers will get delegation of authority and need quality and relevant information to support quality decisions.

In decentralization there is a phenomenon that occurs, namely in the delegation of authority to middle management in making decisions that have not gone well so that it can reduce the implementation of managerial performance that is happening at this time, namely a central leader when giving authority or decisions that must be discussed. Back to each part, meanwhile the problems that occur in the field continue until a decision is given that can unravel the problems that occur, therefore it has not been fully given a decision by top management so that it takes time to make decisions or does not match the needs expected by middle management.

II. Review of Literature

2.1 Managerial Performance

Managerial performance is one of the factors that can increase the effectiveness of an organization or entity. Quality managerial performance is needed in a changing (dynamic) situation and environment so that these changes can be responded to quickly so that decisions taken and organizational actions are in line with the goals set. has been established. The results of the efforts made by managers in carrying out their duties and functions in the organization. The performance indicators are Planning, Investigation, Coordination, Evaluation, Supervision, Staffing (Mahoney et. al, 1963).

2.2 Management Accounting Information System

An information system that produces output using inputs and various processes needed to fulfill certain management objectives. SIAM is useful for decision making. The characteristics of the Management Accounting Information System indicators are Broad scope, Timeliness, Aggregated, Integrated (Chenhall & Morris, 1986).

2.3 Decentralization

The practice of delegating decision-making authority to lower levels (Simamora, 2005). Indicators of Decentralization Authority to make financial decisions, Authority to assign employees, Authority to purchase and maintain office equipment, Authority to allocate budget, Authority to develop business.

2.4. Conceptual Framework

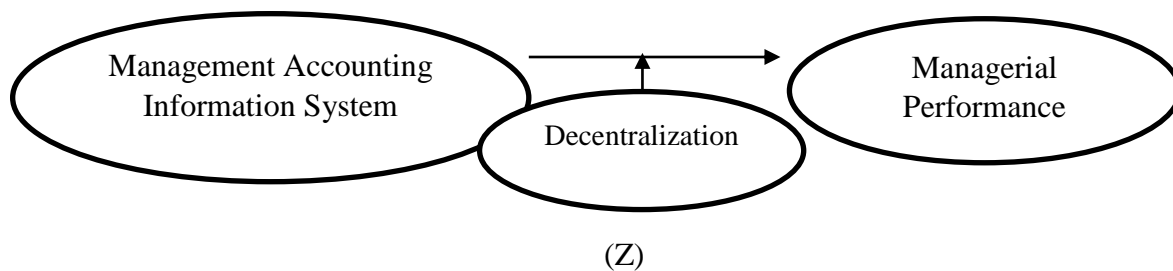


Figure 1. Conceptual Framework

2.5. Research Hypothesis

Based on the theoretical study that has been stated above, the hypotheses in this study are:

1. Management Accounting Information System Affects Managerial Performance At PT. Perkebunan Nusantara II (Persero) Tanjung Morawa.
2. Decentralization Moderates the Effect of Management Accounting Information Systems on Managerial Performance at PT. Perkebunan Nusantara II (Persero) Tanjung Morawa.

III. Research Methods

This research is a quantitative research. Quantitative research is research whose research data is in the form of numbers and analysis using statistics. The population is the totality of all elements in a research area (Azuar and Irfan, 2015).

The population in this study is the manager / head of the section at PT. Perkebunan Nusantara II (Persero) Tanjung Morawa, totaling 40 people. The sample is representative of the population. The sample in this study was taken based on saturated sampling. Based on the opinion above, the sample in this study was 40 respondents.

Data collection in this study consisted of primary data collected through questionnaires. Primary data is raw data taken by the researcher himself (not by others) from the main source for the purpose of his research, and the data did not previously exist. For example, interviews, questionnaires, observations. Primary data in this study is the result of distributing questionnaires to a predetermined sample. To measure each variable, the researcher used a Likert scale consisting of if answering strongly agree was given a score of 5, agreed was given a score of 4, neutral was given a score of 3, disagreed was given a score of 2 and strongly disagreed was given a score of 1.

Data analysis techniques used in this study are:

3.1 Descriptive Statistics

Descriptive statistical analysis was used to determine the characteristics of the sample used and describe the variables in the study. Descriptive statistical analysis includes the number, sample, minimum value, maximum value, average value (mean), of all variables.

3.2 Outer Model Analysis (Measurement Model Evaluation)

Outer model analysis is carried out to ensure that what is used is feasible to be used as a measurement (valid and reliable).

3.3 Inner Model Analysis (Structural Model Evaluation)

The analysis of the structural model (inner model) in this study was conducted by looking at (a) the Goodness Of Fit (GoF) test, (b) the coefficient of determination (r-square); and (c) hypothesis testing.

IV. Result and Discussion

Data was collected by distributing questionnaires which were distributed directly to 40 respondents. A total of 40 distributed questionnaires, thus, can be used to prove the research hypotheses. This descriptive statistic aims to analyze the consistency and accuracy of the research sample. The results of descriptive statistics consist of respondents' characteristics (gender, age and education), Managerial Performance (Y), Management Accounting Information System (X), and Decentralization (Z).

The data obtained from the results of the respondents' responses are used to interpret the discussion so that it can be known the condition of each indicator variable under study. According to Sugiyono (2009) that is based on the range of maximum and minimum scores divided by the number of desired categories using the following formula:

$$\text{Category Score Range} = \frac{\text{Maximum Score} - \text{Minimum Score}}{\text{Number of Categories}}$$

Guidelines for categorizing the average score of respondents' responses:

Questionnaire Interval	Category
1.00–1.80	Not Good/ Very Low/ Inadequate
1.81–2.60	Not Good/Low/Inadequate
2.61–3.40	Fairly Good/ Moderate/ Fairly Adequate
3.41–4.20	Good/ High/ Adequate
4.21–5.00	Very Good/ Very High/ Very Adequate

4.1. Outer Model Analysis

Outer model analysis is used to test the measurements used are feasible to be used as valid measurements. There are several indicators in the analysis of the outer model, including convergent validity, discriminatory validity, and composite reliability.

a. Convergent Validity

Convergent validity of a measurement model with a reflective indicator model is assessed based on the loading factor. The reflective measure is said to be high if it has a correlation of more than 0.7 with the construct to be measured (Ghozali, 2017).

Table 1. Outer Loading after Modification

Variable	Indicator	<i>Outer Loading</i>
Management Accounting Information System (X)	P1	0.882
	P2	1.099
	P3	0.717
	P5	0.974
	P7	1.051
	P10	1.126
Managerial Performance (Y)	P11	1.203
	P14	0.938
	P18	0.770
Decentralization (Z)	P23	0.858
	P26	1.343
	P27	0.914
	P28	1.275
	P30	1.107
Moderating Effect	Moderating Effect 1	0.955

Source: Data processed by the author, 2021

b. Discriminant Validity

If the construct's correlation with the measurement item is greater than the size of the other constructs, it will indicate that the construct predicts the size of the block better than other block sizes (Ghozali, 2017).

Table 2. Cross Loading

	Management Accounting Information System (X)	Managerial Performance (Y)	Decentralization (Z)	Moderating Effect 1
P1	0.788	-0.117	-0.131	0.006
P2	0.959	-0.303	-0.039	0.238
P3	0.799	-0.103	-0.117	0.118
P5	0.777	0.254	0.177	-0.131
P7	0.714	-0.284	-0.335	0.279
P10	0.756	0.045	-0.006	-0.118
P11	0.473	0.875	0.383	-0.211
P14	-0.160	0.528	-0.343	0.269
P18	-0.118	0.251	0.010	-0.232
P23	0.170	-0.159	0.808	0.039
P26	0.253	0.423	0.824	-0.218
P27	0.504	0.151	0.838	-0.088
P28	0.258	0.337	0.811	-0.221
P30	0.115	0.244	0.823	-0.010
Management Accounting Information System (X) * Decentralized (Z)	-0.368	-0.279	-0.226	1,000

Source: Data processed by the author, 2021

It can be seen that each indicator in the research variable has the largest cross loading value on the variables it forms compared to the cross loading value on other variables. Based on the results obtained, it can be stated that the indicators used in this study have good discriminant validity in compiling their respective variables.

In addition to observing the cross loading value, discriminant validity can also be known through other methods, namely by looking at the average variant extracted (AVE) value for each indicator, it is required that the value must be > 0.5 for a good model (Ghozali, 2017).

Table 3. Average Variant Extracted (AVE)

Variable	Average Variance Extracted (AVE)
Management Accounting Information System (X1)	0.788
Managerial Performance (Y)	0.973
Decentralization (Z)	0.806
Moderating Effect 1	1,000

Source: Data processed by the author, 2021

c. Composite Reliability

Composite reliability is the part that is used to test the value of the reliability of indicators on a variable. A variable can be declared to meet composite reliability if it has a composite reliability value > 0.6 (Ghozali, 2017).

Table 4. Composite Reliability

Variable	Composite Reliability
Management Accounting Information System (X1)	0.788
Managerial Performance (Y)	0.973
Decentralization (Z)	0.808
Moderating Effect 1	1,000

Source: Data processed by the author, 2021

d. Cronbach's Alpha

The reliability test with the previous composite reliability can be strengthened by using Cronbach's alpha value. A variable can be declared reliable if the value of Cronbach's alpha > 0.7 (Ghozali, 2017).

Table 5. Cronbach's Alpha

Variable	Cronbach's Alpha
Management Accounting Information System (X1)	0.788
Managerial Performance (Y)	0.973
Decentralization (Z)	0.808
Moderating Effect 1	1,000

Source: Data processed by the author, 2021

e. Inner Model Analysis

After fulfilling the outer model criteria, then the structural model testing (inner model) is carried out. In this research, it will be explained through the goodness of fit test. Based on the data processing carried out by obtaining the R-Square value as follows:

Table 6. Goodness of Fit Test

	R Square	R Square Adjusted
Managerial Performance (Y)	0.734	0.759

Source: Data processed by the author, 2021

The R-Square value obtained is 0.734 for the managerial performance variable. This value interprets that management accounting information system variables and decentralization are only able to explain managerial performance variables around 73.40%, the rest is influenced by other factors not mentioned in this study.

f. Hypothesis testing

Hypothesis testing in this study was conducted by looking at the t-statistic and p-value. The independent variable is declared to have a significant effect on the dependent variable if the t-statistic > 2.02 and P-Value < 0.05.

Table 7. T-Statistic and P-Value

	T Statistics	P Values	Results
Management Accounting Information System (X1) -> Managerial Performance (Y)	2,112	0.004	Accepted
Moderating Effect 1 -> Managerial Performance (Y)	2,202	0.021	Accepted

Source: Data processed by the author, 2021

Based on the table states that the influence of management accounting information systems has a value of 0.774. this explains that if the managerial performance is 1, then the management accounting information system will increase by 0.774. The t-statistic value of 2.112 > 2.02 and P-value 0.004 < 0.05 indicates that the management accounting information system has an effect on managerial performance, so the first hypothesis is "accepted".

Furthermore, decentralization as moderating the effect of management accounting information systems on managerial performance has a value of 0.875. The t-statistic value of 2.202 > 2.02 and P-value 0.021 < 0.05 indicates that decentralization strengthens the influence of accounting information systems on managerial performance, so the third hypothesis is "accepted".

4.2. The Effect of Management Accounting Information Systems on Managerial Performance

In the validity instrument test carried out, it is said to be valid if the r-table has a value of > 0.3120 while the smart pls test is said to be valid if it has a value > 0.7, therefore the indicator that has a value of < 0.7 will be systematically eliminated, This is not a problem in this study.

According to Sarwono (2016) that the value of outer loading = 0.5 is still tolerable for inclusion in a model that is still under development and below the value of 0.50 can be

omitted from the analysis. An indicator is said to have good validity, if the outer loading value is above 0.70. The reflective measure is said to be high if it has a correlation of more than 0.7 with the construct to be measured (Ghozali, 2017).

The results of the P1 questionnaire contain "Receiving the information provided requires the right time" with the Good category and is included in the Timeliness indicator. Furthermore, the P2 questionnaire contains "The Company has information about the impact of events for a certain period of time, for example a monthly/quarterly summary of information, comparison with the Good category and is included in the aggregated indicator. Then on the P3 question "The Company has information about the right target for activities from all parts of the department" with the Good category included in the Timeliness indicator. Furthermore, in question P5 with a questionnaire containing "The reports provided are not based on a systematic basis, for example daily reports weekly reports" the Good category is included in the aggregated indicator. Question P7 contains "The company has the information needed about possible future events" with a score of Good category and is included in the Broadscape indicator. Question P10 contains "The Company has information about the effect of manager decisions on the entire department and the effect of decisions of other parties in the area of responsibility" in the "Good" category including the aggregated indicator. The results of this study are supported by research by Ifatut Taqiroh et al (2019), Fitri Dwinaria, SE et al (2017), and Irma Wulandari (2017) which prove that management accounting information systems have a positive and significant effect on managerial performance.

4.3. Decentralization to Moderate the Effect of Management Accounting Information Systems on Managerial Performance

Decentralization as a moderating variable can also affect management accounting information systems on managerial performance. If the implementation of decentralization in a company can run well, the management accounting information system has a positive effect on managerial performance decision making, but if decentralization is not carried out properly, SIAM will have a negative effect on managerial performance. managerial performance. The information contained in the decentralized and accounting management information system can be utilized by managers for planning, controlling, and decision making to improve their ability to understand the real situation environment and identify relevant activities.

In the results of the questionnaire Question P23 contains "Has the authority to determine company policies", with the Good category including the authority indicator regarding budget allocation. Question P26 contains "Has the authority to issue funds", with the Good category including the authority indicator to make financial decisions. Question P27 contains "Has the authority to determine employee expenses", with the Good category including the authority indicator regarding budget allocation.

Question P28 contains "Has authority in budget preparation", with the Good category included in the authority indicator regarding budget allocation. Question P30 contains "Has authority in business development", with the "Good" category included in the business development indicators. Therefore, from the statement, it is concluded that the managerial performance of the respondent's questionnaire is obtained as follows, Question P11 contains "make corrections maximally if the implementation of deviations from the planning that has been made", with the Good category included in the Evaluation indicator. Question P14 contains "Companies make plans based on company goals" with a Good category including the Planning indicator.

The results of this study are supported by research by Achmad Soleehan and Ira Setiawati (2009), Chairul Basyar and Khanifah (2008), and Ulfatut Taqiroh et al (2019) which proves that decentralization strengthens the influence of accounting information systems on managerial performance.

V. Conclusion

Based on the results of the PLS analysis on the results and discussion of the research discussed in the previous chapter, it shows that most of the research results have an effect on the independent variable and the dependent variable as well as the moderating variable. The conclusions that can be drawn from the results of the analysis are:

1. Management accounting information system has an effect on managerial performance. The results of the analysis show that the first hypothesis is accepted.
2. Decentralization strengthens the influence of management accounting information systems on managerial performance. The results of the analysis show that the second hypothesis is accepted.

Suggestion

Based on the conclusions obtained, the authors would like to provide suggestions for interested parties, namely as follows:

1. For PT. Perkebunan Nusantara II (Persero) Tanjung Morawa, it is hoped that the results of this study can help improve Management accounting information system to managerial performance with decentralization as a moderating variable.
2. For Agencies
It is hoped that this research can help agencies in recognizing and understanding indicators that can affect accounting information systems management on managerial performance with decentralization as a moderating variable. This will be very necessary to speed up the decision-making process carried out by managers in various divisions in PTPN II (Persero) Tanjung Morawa.
3. For future research
It is hoped that future research will be able to add other indicators that can influence Management accounting information system to managerial performance with decentralization as a moderating variable, expanding the object and population of the study, and the use of more varied data analysis techniques so that it can be useful for further research.

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