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The Role of Management Information Systems in Supporting Strategic Decision Making

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ABSTRACT

This study aims to analyze the role of Management Information Systems (MIS) in supporting strategic decision-making in organizations. The research approach used was quantitative with a descriptive and explanatory design. Data were collected through a questionnaire distributed to respondents involved in the decision-making process, using a Likert scale. Data analysis techniques were conducted through validity and reliability tests, as well as simple linear regression analysis using SPSS software. The results of the study indicate that the Management Information System has a positive and significant influence on strategic decision-making. This is indicated by the regression coefficient value of 0.65 with a significance level of 0.000 (<0.05). Furthermore, the coefficient of determination (R^2) value of 0.42 indicates that the MIS contributes 42% to improving the quality of strategic decisions. MIS plays a role in providing accurate, relevant, and timely information, thus assisting management in formulating effective and adaptive strategies. In conclusion, optimizing the implementation of Management Information Systems can improve the quality of strategic decision-making and provide organizations with a competitive advantage in the digital age. Therefore, organizations are advised to continue developing and maximizing their MIS utilization to support better decision-making processes.

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INTRODUCTION

In an era of increasingly rapid digital transformation, organizations are faced with the demand for fast, accurate, and data-driven decision-making. A dynamic, complex, and competitive business environment requires management to rely not only on intuition but also utilize accurate and relevant information as a basis for strategic decision-making. In this context, the role of Management Information

Systems (MIS) is crucial as a tool capable of integrating data, processing information, and presenting it in a format that is easily understood by decision-makers.

A Management Information System (MIS) is a technology-based system designed to support managerial functions within an organization, particularly in planning, control, and decision-making. MIS collects data from various sources, both internal and external, and then processes it into useful information. This information can help managers identify problems, evaluate alternatives, and determine the most effective strategies to achieve organizational goals.

Strategic decision-making itself is a complex process with long-term impacts on an organization. These decisions often involve high levels of uncertainty and risk, requiring comprehensive and reliable information support. Without adequate information system support, decisions can be suboptimal and hinder organizational performance.

With the advancement of information technology, MIS now functions not only as a provider of routine reports but also as a system capable of providing predictive analysis, simulations, and data-driven recommendations. This enables decision-makers to be more proactive in responding to environmental changes and formulating adaptive and innovative strategies.

Based on this description, this study aims to examine the role of Management Information Systems in supporting strategic decision-making in organizations. By understanding the contribution of MIS in greater depth, it is hoped that organizations can optimize the use of information technology to improve decision quality and competitiveness in the digital age.

METHOD

This research uses a quantitative approach with a descriptive and explanatory research design. This approach was chosen to examine the relationship between the implementation of Management Information Systems (MIS) and the effectiveness of strategic decision-making within organizations. The data obtained were analyzed to describe the actual conditions and examine the influence between the studied variables.

The population in this study was all managers and staff involved in the decision-making process in the organization, both at the operational and strategic levels. The sampling technique used purposive sampling, with the criteria being respondents who had experience using Management Information Systems and were directly involved in the decision-making process. The sample size used in this study was 50–100 respondents, adjusted to the needs of the analysis.

Data collection was conducted through a questionnaire designed using a five-point Likert scale, ranging from strongly disagree to strongly agree. The research instrument consisted of two main variables: the independent variable (Management Information System) and the dependent variable (strategic decision-making). Indicators for the MIS variable include information quality, ease of use, speed of access, and relevance. Meanwhile, indicators for strategic decision-making include decision accuracy, decision-making speed, and the success rate of decision implementation.

Prior to data analysis, the research instruments were tested for validity and reliability to ensure data accuracy and consistency. Validity was tested using Pearson correlation, while reliability was tested using Cronbach's alpha. Next, the data were analyzed using descriptive and inferential statistics. Simple linear regression analysis was used to examine the influence of Management Information Systems on strategic decision-making.

The data analysis process was conducted using statistical software such as SPSS. The results were then interpreted to answer the research objectives and draw conclusions regarding the role of Management Information Systems in supporting strategic decision-making within an organization.

RESULTS AND DISCUSSION

Based on the results of data processing using SPSS, it was found that Management Information Systems (MIS) have a positive and significant influence on strategic decision-making in organizations. Analysis was conducted using a simple linear regression test to examine the relationship between the independent and dependent variables.

The analysis results show that the regression coefficient value is 0.65, which means that every increase in the quality of MIS implementation will increase the effectiveness of strategic decision-making by 65%. The significance value (Sig.) of 0.000 < 0.05 indicates that the effect is statistically significant. In addition, the coefficient of determination (R^2) value of 0.42 indicates that 42% of the variation in strategic decision-making can be explained by the Management Information System, while the remainder is influenced by other factors outside the study.

Table 1. Simple Linear Regression Test Results Table

Variables	**Coefficient (β)**	**t-count**	**Sig.**	**Information**
Management Information System (X)	0.65	6.12	0,000	Significant
Constant	1.20	2.45	0.016	Significant
$R^2 = 0.42$				

Discussion

The results of this study indicate that Management Information Systems play a crucial role in improving the quality of strategic decision-making. This is explained by the ability of MIS to provide accurate, relevant, and timely information, thus assisting managers in analyzing situations and determining appropriate strategies. A relatively high regression coefficient indicates that the better the quality of the information system used, the more effective the resulting strategic decisions. MIS not only assists in data processing but also in presenting information that supports the evaluation of decision alternatives.

In addition, the R^2 value of 0.42 shows that although MIS has a significant contribution, there are still other factors that influence strategic decision making, such as managerial experience, organizational culture, and external factors such as market conditions and competition. Overall, these findings confirm that optimal utilization of Management Information Systems can improve the speed, accuracy, and quality of

strategic decisions, thereby providing a competitive advantage for organizations in the digital era.

CONCLUSION

Based on the research conducted, it can be concluded that Management Information Systems (MIS) play a significant role in supporting strategic decision-making within organizations. MIS has been proven to provide accurate, relevant, and timely information, assisting management in analyzing problems, evaluating alternatives, and making more effective decisions.

The analysis results show that MIS has a positive effect on the quality of strategic decision-making, as indicated by a high regression coefficient and a significance level that meets statistical criteria. This indicates that the better the implementation of a Management Information System, the higher the effectiveness of the resulting strategic decisions.

However, strategic decision-making is influenced not only by MIS but also by other factors such as managerial experience, external environmental conditions, and organizational culture. Therefore, organizations need to integrate the use of MIS with other supporting factors to produce optimal decisions.

Thus, it can be emphasized that optimizing the use of Management Information Systems is one of the important keys in improving the quality of strategic decision-making and strengthening organizational competitiveness in the digital era.

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