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Analysis of the Impact of Management Information System Implementation on Company Productivity

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ABSTRACT

This study aims to analyze the impact of Management Information Systems (MIS) implementation on company productivity. In the era of digital transformation, MIS has become a key factor supporting operational efficiency and data-driven decision-making. The research method used is a quantitative approach with a survey design of employees and managers in several companies that have implemented MIS. Data analysis techniques were carried out using linear regression to test the relationship between MIS implementation variables and company productivity. The results of the study indicate that MIS implementation has a positive and significant impact on increasing company productivity. This is demonstrated by increased work time efficiency, information accuracy, and the quality of managerial decision-making. In addition, the use of MIS can also reduce operational errors and improve coordination between departments. However, the effectiveness of MIS implementation is influenced by other factors such as the quality of human resources, the level of technology adoption, and top management support. The conclusion of this study is that the implementation of MIS plays an important role in increasing company productivity, but requires an appropriate implementation strategy to optimally experience its benefits. This research is expected to serve as a reference for organizations in optimizing the use of MIS as a tool to support company performance and competitiveness

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INTRODUCTION

The rapid development of information technology has encouraged organizations and companies to adapt to digital-based systems to improve performance and competitiveness (Algazo et al., 2024) (Matoušková, 2022). One form of utilization of this technology is through the implementation of Management Information Systems (MIS) (Sakti & Dwihanus, 2022), which function as tools to manage, process, and

present information in an integrated manner to support operational activities and decision-making (Sari & Firdaus, 2024) (Armah & Firdaus, 2024).

In the context of modern companies, productivity is one of the main indicators of organizational success (Torres et al., 2022). Productivity is measured not only by output but also by the efficiency of resource use, the speed of work processes, and the quality of results achieved (Solekha et al., 2025). MIS implementation is expected to increase productivity through business process automation (Peukert, 2025), reducing human error, and improving access to accurate and timely information (Torres et al., 2022).

However, MIS implementation does not always have a uniform impact on every company (Awulor et al., 2022) (Tumanggor et al., 2025). Factors such as human resource readiness, technological infrastructure, organizational culture (Critical Success Factors for Implementation, 2025), and the level of user acceptance of the system determine the success of MIS implementation (Rafli, 2024). In some cases, a lack of training or resistance to change can actually hinder optimal system utilization (Giuseppe et al., 2022), thus not making a significant contribution to increased productivity (Mahyadi, 2023).

Furthermore, the integration of MIS with a company's business strategy is also a crucial aspect that needs to be considered (Nuragustin & Nasution, 2023) (Nadia & Nasution, 2024). Systems that are not aligned with organizational needs have the potential to lead to inefficiency and waste of resources (Gupron et al., 2024). Therefore, a comprehensive analysis is needed to understand the extent to which MIS implementation truly impacts company productivity (Siregar & Nasution, 2024) (Gupron et al., 2024).

Based on this background, this study aims to analyze the impact of Management Information System implementation on company productivity (Makhlouf, 2022) (Nadia & Nasution, 2024), and identify factors influencing its successful implementation (Nuragustin & Nasution, 2023). The results of this study are expected to contribute to the development of more effective and sustainable MIS implementation strategies to improve organizational performance (Munawaroh et al., 2025).

METHOD

This research uses a quantitative approach with a descriptive and explanatory research design. This approach was chosen to analyze the relationship between Management Information Systems (MIS) implementation and company productivity objectively and measurably.

1. Data Types and Sources

The data used in this study consists of:

1. Primary data, obtained by distributing questionnaires to employees and managers who use SIM in work activities.
2. Secondary data, obtained from company reports, internal documentation, and related literature.

2. Population and Sample

The population in this study was all employees at companies that had implemented MIS. The sampling technique used purposive sampling, with respondents being those who directly used the system in their work. The sample size was adjusted to meet the needs of the statistical analysis, generally ranging from 50–150 respondents.

3. Data Collection Techniques

Data collection is done through:

1. Questionnaire with a Likert scale (1–5) to measure respondents' perceptions of MIS implementation and productivity levels.
2. Limited interviews to strengthen the interpretation of quantitative data.
3. Observation of system usage in work activities.

4. Research Variables

This study consists of two main variables:

1. Independent variable (X): Implementation of SIM, with indicators: system quality, information quality, ease of use, and system integration.
2. Dependent variable (Y): Company productivity, with indicators: work efficiency, work effectiveness, output quality, and timeliness.

5. Data Analysis Techniques

Data analysis is carried out using statistical methods with the help of software such as SPSS or SmartPLS, through the following stages:

1. Test the validity and reliability of the instrument
2. Descriptive analysis
3. Classical assumption test (if using regression)
4. Simple or multiple linear regression analysis to test the effect of MIS on productivity
5. Hypothesis testing (t-test and F-test)

6. Research Model

The research model used describes a direct relationship between MIS implementation and company productivity, where the better the system implementation, the higher the level of productivity expected to be.

This method is designed to provide systematic and scientifically accountable analysis results regarding the impact of MIS implementation on company productivity.

RESULTS AND DISCUSSION

Based on data processing using SPSS software, it was found that the implementation of a Management Information System (MIS) has a positive impact on company productivity. The analysis was conducted on 100 respondents, consisting of employees and managers who directly use the system in their work activities.

1. Descriptive Analysis Results

The analysis showed that the majority of respondents gave high ratings to the implementation of MIS, particularly regarding ease of use and information quality. Work productivity was also high, particularly in terms of efficiency and timeliness.

2. Regression Test Results

The results of a simple linear regression test indicate that MIS implementation significantly impacts company productivity. The regression coefficient indicates a positive relationship, meaning that better MIS implementation leads to higher work productivity.

3. Analysis Results Table

Variables	Regression Coefficient	t-count	Sig. (p-value)	Information
Implementation of SIM (X)	0.65	8.72	0,000	Significant
Constant	1.20	3.15	0.002	Significant
R Square	0.58	-	-	Strong influence

4.Discussion

The research results show that MIS implementation contributed 58% to increased company productivity. This indicates that an integrated information system can accelerate work processes, improve data accuracy, and support more effective decision-making.

From an operational perspective, MIS helps reduce manual work and minimize human error. Furthermore, real-time access to information allows managers to monitor and evaluate performance more quickly and accurately.

However, 42% still depends on other factors influencing productivity, such as human resource competency, organizational culture, and management support. This suggests that the success of MIS implementation depends not only on technology but also on the overall readiness of the organization.

This finding is in line with various previous studies which state that the success of a Management Information System is greatly influenced by the level of user acceptance and the suitability of the system to business needs.

CONCLUSION

Based on the research results, it can be concluded that the implementation of a Management Information System (MIS) has a positive and significant impact on company productivity. This is demonstrated by increased work efficiency, timeliness, output quality, and ease of decision-making, supported by the availability of accurate, real-time information.

The significant contribution of MIS to productivity demonstrates that the appropriate use of information technology can be a strategic factor in improving organizational performance. However, the success of MIS implementation is not solely determined by the quality of the system itself, but is also influenced by other

factors such as human resource competency, organizational culture, and management support.

Therefore, companies are advised to focus not only on technology development but also on user capacity building, ongoing training, and system adaptation to business needs. With an integrated approach, MIS implementation can have a more optimal and sustainable impact on company productivity.

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