

The Impact of Management Information Systems on Employee Work Productivity in the Digital Era

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The development of digital technology has encouraged organizations to utilize Management Information Systems (MIS) to support operational activities and enhance employee performance. The use of MIS is expected to improve work productivity by providing faster, more accurate, and well-organized information. This study aims to examine the effect of Management Information Systems on employee work productivity in the digital era. The research employs a descriptive quantitative approach, with data collected through questionnaires distributed to employees in organizations that have implemented MIS. The data were analyzed descriptively to assess the relationship between MIS usage and employee productivity. The results indicate that the implementation of Management Information Systems has a positive impact on work efficiency and helps employees complete tasks more effectively. Therefore, Management Information Systems can be considered a key supporting factor in improving employee productivity in the digital era.

Keywords: Management Information Systems, Work Productivity, Digital Era

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1. Introduction

The rapid development of information technology has encouraged organizations to increasingly adopt computer-based systems to support managerial and operational activities. In the contemporary digital era, organizations are required to process large volumes of data efficiently and transform them into meaningful information that supports effective decision making. One of the most widely implemented systems for this purpose is the Management Information System (MIS), which plays a critical role in integrating data, processes, and information flows across organizational functions (Jogiyanto, 2017).

Management Information Systems are designed to collect, process, store, and distribute information that is relevant for managerial planning, control, and decision-making. According to Laudon and Laudon (2022), MIS enhances organizational efficiency by providing timely, accurate, and structured information that enables managers and employees to respond more effectively to internal and external challenges. As organizations operate in increasingly dynamic and competitive environments, the availability of reliable information systems becomes a strategic necessity rather than a mere operational support tool.

In the digital era, the demand for fast, accurate, and integrated information has intensified. Organizations are expected to improve responsiveness, coordination, and performance through the effective use of information systems. MIS facilitates these objectives by streamlining workflows, reducing information redundancy, and improving communication across departments. As a result, employees are better equipped to perform their tasks efficiently and align their activities with organizational goals (Laudon & Laudon, 2022).

Employee work productivity represents a key indicator of organizational success. Productivity reflects the extent to which employees are able to produce optimal outputs within a given time frame while utilizing available resources efficiently. Sutrisno (2019) argues that employee productivity is influenced by multiple factors, including motivation, skills, work environment, and the effective utilization of information technology. In this context, MIS is expected to support employees by simplifying work processes, reducing errors, and improving time efficiency.

The implementation of MIS can assist employees in performing tasks in a more structured and systematic manner. By providing real-time access to relevant information, MIS reduces uncertainty in task execution and enhances coordination among organizational units. Previous studies suggest that the effective use of information systems contributes positively to employee performance by enabling faster decision making and improving task accuracy (Jogiyanto, 2017; Laudon & Laudon, 2022).

However, despite its potential benefits, not all organizations are able to utilize MIS optimally. Challenges related to human resource capabilities, technological readiness, system usability, and management support often hinder effective implementation. Employees may lack sufficient skills or training to fully leverage MIS functionalities, while inadequate managerial commitment can limit system adoption and utilization. These challenges highlight the importance of examining not only the presence of MIS but also its actual impact on employee productivity.

Therefore, this study aims to analyze the impact of Management Information Systems on employee work productivity in the digital era. By focusing on the relationship between MIS utilization and employee productivity, this research seeks to provide empirical evidence that can support organizational efforts to enhance performance through effective information system implementation.

2. Literature Review And Problem Statement

Management Information Systems

Management Information Systems (MIS) are defined as integrated systems designed to collect, process, store, and distribute information to support managerial decision-making and organizational operations. MIS plays a crucial role in transforming raw data into meaningful information that assists managers and employees in planning, controlling, and coordinating organizational activities (Jogiyanto, 2017). In the digital era, MIS has evolved from a purely administrative tool into a strategic resource that enhances organizational efficiency and competitiveness.

Laudon and Laudon (2022) emphasize that MIS enables organizations to improve operational effectiveness by providing timely, accurate, and relevant information. Through system integration and automation, MIS reduces information delays, minimizes errors, and supports faster decision-making processes. The effective use of MIS allows organizations to respond more adaptively to environmental changes and market demands, particularly in highly competitive industries.

Employee Work Productivity

Employee work productivity refers to the ability of employees to generate optimal output by efficiently utilizing available resources within a given period. Productivity is commonly associated with work quality, efficiency, and effectiveness in completing assigned tasks (Sutrisno, 2019). High productivity reflects not only individual performance but also the effectiveness of organizational systems and processes.

Several studies suggest that productivity is influenced by multiple factors, including skills, motivation, work environment, leadership, and technological support. In the context of digital transformation, information technology has become an essential factor in improving employee productivity by simplifying workflows,

enhancing coordination, and reducing task complexity (Robbins & Judge, 2020). Therefore, the integration of MIS is expected to support employees in achieving higher productivity levels.

Management Information Systems and Employee Productivity

Previous empirical studies indicate a positive relationship between the use of information systems and employee productivity. MIS facilitates access to real-time information, improves communication across departments, and supports more accurate task execution. According to Jogiyanto (2017), the effective utilization of information systems contributes to improved work efficiency and reduces operational bottlenecks.

Furthermore, Laudon and Laudon (2022) argue that organizations that successfully implement MIS tend to experience higher employee performance due to better information quality and system reliability. When employees are supported by reliable systems, they can focus more on value-added activities rather than administrative tasks. However, the impact of MIS on productivity largely depends on the extent of system adoption, user competence, and management support.

Problem Statement

Despite the recognized importance of Management Information Systems in enhancing organizational performance, many organizations still face challenges in maximizing the benefits of MIS implementation. Issues related to human resource readiness, system usability, and insufficient managerial support often limit the effective use of MIS. As a result, the expected improvement in employee productivity is not always achieved.

In the Indonesian context, particularly in organizations operating in the digital era, empirical evidence regarding the impact of MIS on employee productivity remains limited. Existing studies often focus on technical aspects of system implementation rather than examining its direct influence on employee work outcomes. Therefore, this study addresses the following research problem: *To what extent does the implementation of Management Information Systems influence employee work productivity in the digital era?*

By examining this relationship, the study aims to contribute empirical insights to the information systems and human resource management literature, while also providing practical implications for organizations seeking to improve productivity through effective MIS utilization.

3. Method

This study employs a descriptive quantitative approach to examine the influence of Management Information Systems (MIS) on employee work productivity. A descriptive quantitative design is appropriate when research aims to describe and explain phenomena based on numerical data obtained from respondents and to identify patterns or tendencies within the observed variables (Sugiyono, 2019). This approach enables the systematic collection and analysis of data to provide an objective overview of the relationship between MIS implementation and employee productivity.

The object of this research consists of employees working in organizations that have implemented Management Information Systems in their operational activities. These employees were selected as respondents because they directly interact with the information system and experience its impact on daily work processes. By focusing on employees as system users, the study seeks to capture accurate perceptions regarding the effectiveness of MIS in supporting work performance and productivity.

Primary data were collected through structured questionnaires developed based on established indicators of Management Information Systems and employee work productivity. The MIS indicators reflect aspects

such as information quality, system usefulness, and ease of use, while productivity indicators include work efficiency, task completion accuracy, and time effectiveness. A five-point Likert scale was employed to measure respondents' perceptions, ranging from strongly disagree to strongly agree. The Likert scale is widely used in quantitative research because it allows researchers to quantify subjective perceptions and attitudes in a consistent manner (Sekaran & Bougie, 2020).

In this study, Management Information Systems serve as the independent variable, while employee work productivity is treated as the dependent variable. The collected data were analyzed using descriptive statistical techniques to identify response patterns, central tendencies, and variations among respondents. Descriptive analysis was also used to illustrate the general relationship between MIS implementation and employee productivity, providing a clear overview of how information systems support work performance in organizational settings.

Through this methodological approach, the study aims to present an empirical description of the role of Management Information Systems in enhancing employee productivity in the digital era, while offering insights that can be useful for organizational decision-making and system improvement.

4. Results And Discussion

Research Results

The results of this study demonstrate that the majority of respondents perceive the implementation of Management Information Systems (MIS) as having a positive impact on their work productivity. Most employees indicate that MIS significantly accelerates task completion by providing faster access to relevant and accurate information. This improvement is particularly evident in routine operational tasks, where employees no longer need to rely on manual data processing or fragmented information sources.

Respondents also report that MIS plays an important role in supporting report preparation and administrative tasks. The system enables employees to generate reports more efficiently and with a higher degree of accuracy, thereby reducing the likelihood of data entry errors and inconsistencies. As a result, employees experience a reduction in rework and corrective actions, which contributes to better time management and increased work efficiency.

Furthermore, the findings reveal that MIS enhances coordination and communication among different departments within the organization. Employees perceive that information flows more smoothly across organizational units because data are stored and accessed through an integrated system. This integration reduces information silos and minimizes delays caused by interdepartmental miscommunication. Consequently, work processes become more structured and aligned with organizational objectives.

Overall, the descriptive analysis suggests that MIS contributes to improved employee productivity through several mechanisms, including faster information access, improved data accuracy, streamlined reporting processes, and enhanced interdepartmental coordination. These results indicate that employees recognize MIS not merely as a technical tool, but as an essential support system for accomplishing work tasks more effectively.

Discussion

The findings of this study reinforce the theoretical and empirical arguments presented in the information systems literature regarding the role of MIS in enhancing individual and organizational performance. Consistent with the perspective of O'Brien and Marakas (2020), the results confirm that information systems improve employee performance by providing timely, relevant, and easily accessible information. In

this study, employees' perceptions of increased work speed and reduced errors reflect the practical benefits of MIS in supporting daily operational activities.

In addition, the results align with the framework proposed by Laudon and Laudon (2022), who emphasize that MIS contributes to organizational effectiveness by integrating information across functional areas. The observed improvement in coordination among departments suggests that MIS facilitates better communication and collaboration by creating a shared information platform. This integration is particularly important in complex organizational environments, where tasks are interdependent and require continuous information exchange.

The positive impact of MIS on employee productivity can also be explained through a socio-technical perspective, which views information systems as a combination of technological and human elements. While MIS provides the technological infrastructure needed to process and distribute information, employees' ability to utilize the system effectively determines the extent of productivity gains. As noted by O'Brien and Marakas (2020), system effectiveness depends on users' competencies, attitudes, and familiarity with system features.

Despite the generally positive findings, the study also highlights that the benefits of MIS are not automatic. Employees' perceptions suggest that effective utilization of MIS requires adequate training and ongoing managerial support. Without sufficient training, employees may underutilize system functionalities or experience difficulties in adapting to new work processes. This observation supports the argument of Laudon and Laudon (2022), who stress that successful MIS implementation must be accompanied by organizational change management and user support mechanisms.

Moreover, management commitment plays a crucial role in maximizing the impact of MIS on productivity. When management actively encourages system usage, provides clear guidelines, and allocates resources for system improvement, employees are more likely to adopt MIS as an integral part of their work routines. Conversely, a lack of managerial support may lead to resistance or superficial system usage, thereby limiting productivity improvements.

Taken together, these findings suggest that MIS can significantly enhance employee productivity when supported by appropriate human resource development and managerial practices. The study extends existing literature by providing empirical evidence from an organizational context in the digital era, demonstrating that MIS contributes not only to technical efficiency but also to improved coordination and work effectiveness. These insights highlight the importance of viewing MIS as a strategic organizational resource rather than merely an operational tool.

5. Conclusion

Based on the results and discussion, this study concludes that Management Information Systems (MIS) have a significant and positive impact on employee work productivity in the digital era. The implementation of MIS contributes to improved work efficiency by accelerating task completion, enhancing the accuracy and accessibility of information, and supporting more structured and effective work processes. Employees perceive MIS as a valuable tool that assists them in performing their duties more efficiently and with fewer errors. Furthermore, the findings indicate that MIS facilitates better coordination and communication across organizational units through integrated information systems. This integration enables employees to align their activities more closely with organizational objectives and reduces inefficiencies caused by fragmented information flows. As a result, MIS plays an important role not only in operational support but also in strengthening overall organizational performance. However, the effectiveness of MIS implementation is

highly dependent on organizational readiness, particularly in terms of human resource capabilities. Adequate training, continuous technical support, and strong managerial commitment are essential to ensure that employees are able to utilize the system optimally. Without these supporting factors, the potential benefits of MIS may not be fully realized. In conclusion, Management Information Systems should be viewed as a strategic organizational resource rather than merely a technological tool. When supported by appropriate human resource development and management support, MIS can serve as an effective instrument for enhancing employee productivity and sustaining organizational competitiveness in the digital era.

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