ISNU Nine-Star Multidisciplinary Journal (INS9MJ)
(eISSN: 3063-8984)
Volume 2, Number 3, December 2025 (447-452)

Application of Management Information Systems in Improving Operational Efficiency in Trading Companies

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Info Articles

Article History
Received: 2025-11-29
Revised: 2025-12-20
Published: 2025-12-30

Keywords:
Management; efficiency; companies; System

Abstract

The development of information technology encourages trading companies to adopt systems that are able to increase the effectiveness and efficiency of operational activities. One of the important instruments in this context is the Management Information System (SIM), which plays a role in processing data into relevant information for managerial decision-making. This study aims to analyze the application of Management Information Systems in improving the operational efficiency of trading companies, especially in the decision-making process, inventory supervision, and data and transaction management. The research method used is qualitative descriptive with a literature study approach, through the review of books, scientific articles, and relevant literature sources that discuss the application of SIM in business operational activities. The results of the study show that the implementation of SIM is able to speed up the transaction process, minimize administrative errors, and improve the accuracy and integration of inventory and financial data. In addition, the driver's license provides convenience in operational supervision and supports faster and more precise decision-making. With an integrated system, companies can increase employee productivity, save work time, and reduce operational costs. In conclusion, the implementation of Management Information Systems has a strategic role in increasing operational efficiency and added value of trading companies in a sustainable manner.

I. INTRODUCTION

The rapid development of information technology has brought fundamental changes in the way companies carry out their business activities. Digital transformation affects not only the technical aspects of operations, but also the way companies plan, control, and make strategic decisions. In the context of trading companies, the demand to manage sales, inventory, and financial statements quickly, accurately, and integratedly has become increasingly important for companies to be able to survive and compete in the midst of competitive market dynamics (Safitri, 2024).

Management Information System (SIM) is present as a solution that is widely adopted by companies to answer these needs (Agriculture, 2025). SIM allows the integration of various operational functions, from recording transactions, managing stock, to presenting managerial reports needed in the decision-making process. With the support of a computerized and integrated system, the flow of information in the company becomes faster, more accurate, and more accessible to management. This directly contributes to improving the quality of decisions, reducing administrative errors, and improving coordination between departments within the organization.

Conceptually, a Management Information System is an integrated system designed to collect, process, store, and present relevant information for management in carrying out the functions of planning, organizing, implementing, and controlling (Kemala Hayati & MT, n.d.). In trading companies, driver's licenses play an important role in monitoring the flow of goods, controlling financial transactions, and evaluating the performance of employees and work units. Work processes that were previously carried out manually and separately can be simplified through a structured system, so that work completion time

is shorter and operational efficiency can be improved.

Nevertheless, the implementation of SIM is inseparable from various challenges, such as the readiness of human resources, the need for relatively large initial investments, and resistance to changes in the work system. Without proper planning and implementation strategies, the benefits of SIM cannot be obtained optimally (Muhammad et al., 2022). Therefore, companies need to deeply understand the role and implications of SIM implementation on their operational efficiency. Based on this background, this study aims to analyze the application of Management Information Systems in improving operational efficiency in trading companies. It is hoped that the results of this research can make a theoretical and practical contribution to the development of management information systems and become a reference for trading companies in optimizing the use of information technology to increase competitiveness.

II. RESEARCH METHODS

This research is a qualitative descriptive research with the aim of providing a systematic, factual, and accurate picture of how the application of Management Information Systems (SIM) improves the operational efficiency of trading companies (Rukhmana et al., 2022). Using this approach, the researcher seeks to show the real conditions in the field regarding the implementation of the SIM and how it impacts the company's operational activities.

The types of data used in this study are primary data and secondary data. Primary data was obtained through direct interviews with management, administrative staff, and employees involved in the use of information systems. Meanwhile, secondary data is obtained from company documents, financial statements, and literature relevant to the research topic, such as books, journals, and scientific articles related to management information systems.

The data that has been obtained is then analyzed using descriptive analysis, namely by describing the findings based on facts in the field without manipulating the data. This analysis aims to find out the extent to which the application of Management Information Systems has an effect on improving operational efficiency in trading companies as well as the factors that support and hinder its implementation.

This qualitative descriptive research method was chosen because it is able to provide a realistic and in-depth picture of the application of Management Information Systems in improving operational efficiency in trading companies. By combining primary and secondary data, as well as applying descriptive analysis, this research is expected to make a real contribution to the development of information systems in the business world.

III. RESULTS AND DISCUSSION

A. Overview of Management Information System (SIM) Implementation

Based on the results of observations, the trading companies that are the object of the research have implemented an integrated Management Information System (SIM) as part of the company's operational management strategy. The implementation of SIM covers various main functions, including managing inventory of goods, recording sales and purchase transactions, and preparing financial reports systematically. The system is designed to connect all work units in one unified platform so that the data flow can run consistently and continuously.

Technically, the driver's license used utilizes computer-based software that is connected to every part of the company, such as the warehouse, sales, purchasing, and finance departments (Fadhil et al., 2023). Every transaction that occurs is automatically recorded and processed in real-time, so that the information generated is always up-to-date and can be accessed at any time by the authorities. This condition is different from the manual system previously used, where recording is carried out separately and has the potential to cause delays in information and administrative errors.

The implementation of SIM has a real impact on improving administrative efficiency and coordination between departments (Marbun & Nasution, 2025). For example, the warehouse

department can directly update the stock data of goods every time an incoming or outgoing transaction occurs, while the sales department can monitor the availability of goods without having to do physical checks directly. In addition, the finance department can obtain transaction data automatically for the purpose of preparing more accurate and timely financial statements. Thus, SIM not only functions as a data recording tool, but also as a management support system that is able to increase transparency, accuracy, and information integration in trading companies.

Overall, the overview of the implementation of SIM in trading companies shows that this system has become an important foundation in supporting smooth operations and more effective managerial decision-making.

B. The Effect of the Implementation of Management Information Systems in Improving Operational Efficiency in Trading Companies

The implementation of Management Information Systems (SIM) has a significant influence on improving the operational efficiency of trading companies, especially in the face of business demands in the digital era that emphasizes speed, accuracy, and efficiency (Hafiz & Nasution, 2024). A driver's license allows companies to manage information in an integrated manner, so that every operational activity can be systematically monitored and controlled (Erwin et al., 2024). This integration makes business processes run more efficiently because it reduces duplication of work, speeds up the flow of information, and minimizes reliance on error-prone manual processes.

Prior to the implementation of driver's licenses, many trading companies still used manual recording systems that took a relatively long time, were less accurate, and were difficult to monitor thoroughly. These conditions often cause delays in reports, mismatches in stock data, and an increased risk of administrative errors. With the implementation of computer-based driver's licenses, the process of recording sales and purchase transactions, inventory management, and preparing financial statements can be done automatically and in real-time. This has a direct impact on saving working time, reducing operational costs, and improving the accuracy of data used in the company's operations.

In addition to improving process efficiency, SIM also plays an important role in strengthening communication and coordination between departments within the company (Utami & Firdaus, 2025). The integrated system allows the sales, warehouse, and finance departments to access and update the same data simultaneously. For example, any recorded sales transactions will automatically affect the inventory data in the warehouse and the company's financial statements. This mechanism creates a more structured, transparent, and easily supervised workflow by management.

From a decision-making perspective, SIM makes a strategic contribution by providing fast, accurate, and relevant information. Management no longer relies on intuition alone, but can make decisions based on actual data presented in the form of reports and analysis. Thus, the implementation of SIM has been proven to not only improve operational efficiency, but also strengthen the quality of decision-making and the overall competitiveness of trading firms.

C. Implications of the Application of Management Information Systems on the Performance and Competitiveness of Trading Companies

The implementation of Management Information Systems (SIM) in trading companies has implications that are not only short-term operational, but also have a strategic impact on organizational performance, sustainability efficiency, and the company's competitiveness in the long term (Listy & Ilham, 2025). When SIM is implemented consistently and integrated, companies no longer rely solely on experience or intuition in carrying out business activities, but rely on accurate, systematic, and traceable data and information. This condition marks a paradigm shift in the management of trading companies from traditional work patterns to modern management based on information technology.

In terms of internal performance, SIM plays an important role in creating a more structured and measurable work system (Yusuf et al., 2025). Every operational activity, from the purchasing process, to inventory management, to sales and financial reporting, is systematically documented in one unified database. This allows management to conduct comprehensive and continuous performance monitoring. Information on stock turnover rates, sales volumes, cost efficiency, and employee productivity can be easily accessed and comprehensively analyzed. Thus, SIM is an effective management control tool in detecting potential inefficiencies, waste of resources, and operational irregularities from an early age.

Furthermore, the implementation of SIM encourages the creation of sustainable efficiency, not just momentary efficiency (Rangkuti & Nasution, 2025). Automated systems reduce reliance on manual processes that tend to be inconsistent and error-prone. In the long run, the consistency of data and work procedures generated by the SIM helps companies build better operational standards. Efficiency of working time, reduction of administrative costs, and increased accuracy of information are interrelated and mutually reinforcing factors. When the work process runs more efficiently and stably, the company has more room to carry out more mature business planning and development.

The implications of the implementation of SIM are also clearly seen in strengthening the managerial decision-making function. The information presented by the SIM is not only historical, but can also be used as a basis for analysis for future planning (Kemala Hayati & MT, n.d.). Management can identify sales trends, consumer demand patterns, and procurement needs more precisely. Strategic decisions such as determining the amount of stock, price adjustments, or market expansion can be made rationally and data-driven. Thus, the risk of errors in decision-making can be suppressed, while opportunities to improve business performance can be maximized.

In the context of business competition, the implementation of SIM is one of the factors determining the competitiveness of trading companies. Companies that are able to manage information quickly and accurately have an advantage in responding to changing markets and consumer needs. The speed of service, the accuracy of delivery of goods, and the ability to maintain stock availability are important aspects that are greatly influenced by the quality of the information system used. SIM allows companies to provide better service to customers, which ultimately increases consumer trust and loyalty.

In addition, the implementation of a driver's license also contributes to increasing transparency and accountability in company management. Well-documented financial and operational data facilitates the process of evaluation, internal audit, and reporting to related parties. This transparency is not only important for internal management, but also for external parties such as business partners, investors, and supervisory institutions. With better governance, trading companies have a greater chance of developing in a healthy and sustainable manner.

Overall, the implementation of Management Information Systems has broad and profound implications for improving operational efficiency, organizational performance, and the competitiveness of trading firms. Driver's licenses can no longer be seen as just an administrative tool, but rather as a strategic system that integrates operational activities with the company's long-term goals. Therefore, the success of the implementation of SIM is highly dependent on management commitment, the readiness of human resources, and the company's ability to adapt information systems to the needs and dynamics of the business that continues to evolve.

IV. CONCLUSION AND SUGGESTIONS

A. Conclusion

Based on the results of the research and discussions that have been described, it can be concluded that the implementation of the Management Information System (SIM) has a very significant role in improving operational efficiency in trading companies. SIM allows the integration of various operational activities, such as inventory management, recording of sales and purchase transactions, and preparation of

financial statements, into one integrated and computerized system. The integration has an impact on accelerating the flow of information, improving data accuracy, and reducing administrative errors that previously often occurred in manual systems.

In addition to improving technical efficiency, SIM also contributes to improving the quality of managerial decision-making. The information available in real-time and based on actual data allows management to plan, control, and evaluate operational activities more precisely and rationally. In the long term, the implementation of SIM encourages the creation of sustainable efficiency, increased employee productivity, and strengthening the performance and competitiveness of trading companies in the midst of increasingly fierce business competition. Thus, SIM not only serves as an operational support tool, but also as a strategic instrument that supports the sustainability and development of trading companies in the digital era.

B. Suggestion

Based on this conclusion, it is recommended that trading companies continue to optimize the implementation of Management Information Systems by paying attention to the readiness of human resources, technological infrastructure, and the company's operational needs. Training and assistance for employees need to be carried out on an ongoing basis so that the system can be utilized optimally. In addition, the company is expected to evaluate and update the system periodically to adapt the SIM to technological developments and business dynamics. For further research, it is recommended to examine the application of SIM with a quantitative approach or comparative study in order to obtain a broader and in-depth picture of the effectiveness of SIM in various types of trading companies.

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