

MANAGEMENT INFORMATION SYSTEM AS A SUPPORT BUSINESS STRATEGY IN THE DIGITAL ERA

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Abstract

In this digital age, Management Information Systems (MIS) play a crucial role in underpinning business strategy. This research examines how MIS integrates people, technology, and organization to improve decision-making, work efficiency, and competitive advantage. By turning raw data into useful insights, MIS helps companies maximize performance, cut costs, and respond to market changes immediately. The research emphasizes the importance of a flexible and adaptable MIS structure to keep pace with advances in digital technology and the dynamic business world. In essence, the proper use of MIS not only supports day-to-day activities but also drives critical decisions that keep businesses thriving and competitive in the digital age. In the current age of globalization, the importance of management information systems (MIS) in promoting effective business operations and supporting sound decision-making is vital. This article examines how the implementation of SIM allows companies to incorporate information technology, enhance productivity, manage data efficiently, and quickly adapt to changes in the market. Nonetheless, the execution of SIM involves more than just technology alone. This article also emphasizes the significance of company culture and the enhancement of employees' digital skills in facilitating adaptation to swift technological advances.

Keywords: *Management Information Systems, Business Strategy, Decision-Making, Digital Transformation, Competitive Advantage.*

INTRODUCTION

The rapid development of digital technology has significantly changed the business landscape internationally. In this digital era, Management Information Systems (MIS) have become one of the important pillars that support an organization's business strategy to remain competitive and adapt to continuous environmental changes. MIS is now not just a tool for administrative matters, but has transformed into a strategic tool that plays a role in decision making, information management, and innovation and change in business processes. In the era of globalization, companies face challenges related to the huge amount of data and the demand to respond quickly to market changes. MIS enables companies to efficiently combine, analyze, and utilize information from various sources, thus supporting data-driven decision-making and appropriate business strategies at the international level. Integrating Management Information Systems (MIS) with business plans has been proven to increase an organization's agility, innovation, and competitive advantage in the midst of increasingly intense competition.

In Indonesia, the implementation of MIS (Management Information System) has reached all business sectors and created a new way of organizational management. MIS has a very important role in improving operational efficiency, assisting in strategic decision making, and driving the growth and sustainability of the company. Therefore, the development and use of an effective Management Information System is a must for every organization that wants to survive and grow in the digital era. Along with the rapid development of information technology, management information systems (MIS) have become the most vital element in creating a strong foundation for the success of an organization. In the digital era full of complexity and rapid change, Management Information Systems (MIS) not only function as a tool, but also play a role as a strategic element that determines how to compete in today's global market, both in managing operations, making data-based decisions, and improving customer experience. Therefore, information systems have a very important role in strengthening business. Digital transformation has significantly changed the business landscape, requiring companies to

integrate information technology as one of the main foundations of their development strategy. MIS plays a vital role in this process by offering a basis for effective management and processing. With a Management Information System (MIS), a company can improve operational effectiveness, reduce costs, and respond more quickly to changes in the market. Timely, data-driven business decisions are key to addressing complex economic challenges. MIS provides the tools needed to collect data from multiple sources, analyze it thoroughly, and produce relevant, accurate information for business leaders. This enables businesses to make better, more strategic decisions, speed up the decision-making process, and reduce the risk of errors.

Digital transition is a game changer for modern business. With the rapid advancement of technology, digital transformation is not just a change in the way we communicate or do business, but also creates a new way of thinking in managing organizations (Saied and Syafii, 2023). Our goal in conducting this research is to explore the impact of digital transformation related to practices on innovative management and decision making in the digital era in a company. In this era, where adaptation and efficiency are important factors for achieving success, organizations must be able to respond quickly to change and adopt technological innovations to remain competitive (Wahyudi et al., 2023). Innovative management is an important foundation for maximizing the potential of the latest technology. This study not only views technological change as a separate thing, but also seeks to understand how innovative management can function as a driver in facing and utilizing digital transformation. By recognizing the important role of innovative management, this study aims to provide a deep understanding of the relationship between digital transformation, innovative management strategies, and organizational sustainability (Hakim et al., 2023).

THEORITICAL REVIEW

1. Management Information System

According to Kadir, the management information system can be understood as a system that plays an important role in presenting relevant information. This information is useful for helping smooth operations, facilitating decision making, and supporting overall management within an organization. Several experts also provide their views on the definition of information systems, as stated by Rusdiana and Irfan (2014):

- According to Kroenke, an information system is the effective use and development of various information within an organization.
- According to Mc. Leod, a management information system is a computer-based system that provides various information that can be accessed by several users with the same information needs. This information can include explanations about the continuity of the company and events that have occurred in the company, both in the past, present, and possibilities that may occur in the future. This information is provided in various formats, including reports published in certain periods, special reports, and the results of simulations or mathematical experiments. Information in the company can be utilized and managed by the management itself, as well as by other staff who at that time make decisions to solve a problem.
- According to Stoner, a management information system is defined as a formal way in which information is presented to management accurately and timely. This information can be used to assist management and related parties in making and determining decisions, so that the planning, operational efficiency, and control functions in the organization can run well.

Information systems are the process of implementing systems that use information technology in companies and organizations. Its implementation can be done through internal activities of the organization or company, both in the implementation of organizational functions and at every level that exists. Meanwhile, implementation in external company activities includes the implementation of systems in all types of activities related to external parties, such as suppliers and customers. In the world of business and organizations, information systems are how information technology is integrated into operations. This integration can occur through activities within the company or organization, both in optimizing internal functions and at every level of management. In addition, information systems also play an important role in external activities, which include interactions with parties outside the company, such as suppliers and customers. Based on the various views above, it can be concluded that the Management Information System (MIS) is a computer-based information system and is applied to all or part of the company's activities. Referring to the various perspectives that have been described, it can be concluded that the Management Information System (MIS) is an information system that uses a computer base and is used in all or part of the company's activities, both those that occur inside and outside the company. This system functions as a reference in the process of making certain decisions in the company environment.

2. Business Strategy

Based on the opinion of Michael E. Porter, a famous business strategist, stated that business strategy is a distinctive approach used by a company to produce different value from its competitors. In other words, business strategy is a long-term plan designed to achieve competitive advantage in the market. By having an effective business plan, companies can maximize the use of resources and compete better. In addition, there is Peter Drucker, a leading management expert, who stated that business strategy is about determining "where a company should go." Drucker argued that the ideal business strategy includes the company's long-term vision, the company's big dreams, and the steps the company will take to grow. In addition, there is Kenneth R. Andrews, an expert in business strategy, who offers a compelling perspective on what business strategy is. Andrews argues that business strategy is a series of actions taken by a company in response to the conditions around it. According to him, this involves decision-making and implementing steps aimed at achieving the company's goals. A discussion of the definition of business strategy feels incomplete without a source that can strengthen the idea. Below are some references that can be used to deepen knowledge about business strategy:

- Porter, M. E. (1980). *Competitive Strategy: Technology for analyzing industries and competitions*
- Drucker, P. F. (1973). *Management: Tasks, Responsibility, Practices*.
- Andrews, K. R. (1971). *The concept of corporate strategy*.

So, experts define business strategy as a unique long-term blueprint, helping organizations excel in competition and determining the direction of future company growth. In the midst of today's tight business competition, a deep understanding of business strategy is essential for a company's success. Business strategy is a comprehensive plan prepared by a company or organization to achieve its long-term goals. This strategy includes determining targets, analyzing business situations, formulating tactical plans, and implementing the steps needed to achieve these goals. In today's competitive business world, creating an effective business strategy is key to a company's success. Companies can increase their competitive advantage and achieve their desired goals by setting long-term goals, conducting thorough market research, and developing relevant tactical plans. However, it is important to remember that business strategies are dynamic and require continuous monitoring and evaluation to stay relevant to changes in the business environment.

3. Utilization of Digital Era Technology

Rapid advances in digital technology have had a significant impact on the quality and efficiency of data created and distributed. For example, visualizations are sharper thanks to higher resolution, data storage is more compact, and information dissemination is faster. These fundamental changes show that digital technology is not just improving technical performance, but also affecting various aspects of life by offering optimal convenience and effectiveness in various activities and procedures. According to Muhammad Danuri (2019:119), digital technology is a type of information technology that prioritizes the use of computers or digital methods in various activities, not too dependent on human power. This technology emphasizes a sophisticated and fully automatic operating system, by utilizing computerization or formats that can be understood by computers. Basically, digital technology is a system that has the ability to calculate very quickly and process various information into numerical forms.

According to Abdul Kadir (2003:14), digital technology in an information system consists of two main components, namely software and hardware. Hardware includes physical components such as memory, printers, and keyboards: these parts can be seen and touched directly. Meanwhile, software is a collection of commands that are tasked with managing hardware so that it can function as expected. According to Ripa and Sucundo (2018), the world of digital technology is divided into three important parts: Digital Artifacts, Digital Platforms, and Digital Infrastructure. Digital artifacts themselves can be understood as various digital elements, be it computer programs or media content, which are part of new products or services and provide utility or value to their users. Meanwhile, a digital platform can be interpreted as a container built using software from a specific code base. This code base is developed from a software system that offers main functions that are divided into several parts or modules, which work together through interfaces that connect them. Finally, digital infrastructure is a digital technology device and system that allows us to communicate, collaborate, and perform computations. The use of digital infrastructure is a process that involves social and technical aspects. Tilson et al. (2010) call this digitalization, and emphasize the changes that occur at the level of understanding, social, and institutional.

RESEARCH METHODS

The research answers questions about the role of Management Information Systems (MIS) in supporting business tactics in the digital era, this research uses literature studies as the main method. This approach was chosen because it is in line with the purpose of the research, namely to comprehensively analyze the ideas, implementation, and influence of Management Information Systems (MIS) on decision making, work smoothness, and superior competitiveness based on articles or scientific journals along with e-books that we have read. By exploring various library sources, researchers summarize various relevant data from books, periodicals, scientific works, and previous study reports that discuss similar topics. These sources are used as a theoretical basis as well as study material to understand the function of Management Information Systems (MIS) as an important instrument in the digital transformation of companies. In addition, this method provides an opportunity for researchers to develop a conceptual framework related to the combination of human resources, technology, and organizational structure within the scope of information systems. This method was chosen because of several advantages, namely:

- The theoretical basis is strong and valid, because it comes from reliable references, for example scientific journals and college textbooks.
- It is easier for researchers to combine various viewpoints, both from theory and practice, that have been compiled by experts.
- More efficient in terms of time and money, because you don't have to bother collecting data directly through surveys or interviews.
- It is well suited for conceptual analysis and knowledge mapping, as discussed in this research on the relationship between individuals, technology, and organizations in Management Information Systems (Laudon and Laudon, 2020).

Thus, the use of the literature review method in this research produces a strong theoretical basis for understanding how Management Information Systems (MIS) act as a strategic instrument. This not only supports operational activities but also plays a crucial role in digital change and the flow of strategic decision-making of a company.

RESULTS AND DISCUSSION

In this ever-evolving digital era, the implementation of Management Information Systems (MIS) plays a very important role in business strategy, especially in making operations more efficient and winning the competition. From various analyses and literature studies, it can be seen that MIS is more than just a technological tool, but a crucial element in a strategy that integrates people, technology, and the way an organization works into a harmonious whole (Laudon and Laudon, 2020).

1. Improving Decision Quality

One of the main advantages of MIS is its ability to support collaborative decision-making. MIS can provide accurate and up-to-date information, so that managers can make decisions based on valid and relevant data. The data is processed from raw information into organized business knowledge, including trend analysis, market projections, and organizational performance assessments (O'Brien and Marakas, 2011). This supports faster, more accurate, and strategic decision-making, which is an important factor in facing market dynamics.

2. Operational Efficiency and Productivity Improvement

The use of SIM significantly reduces the number of tasks, improves cooperation between divisions, and supports the automation of various administrative and operational activities. By adopting an ERP (Enterprise Resource Planning) system, companies can unite financial, production, marketing, and human resource processes in one platform. As a result, this leads to cost savings and increased overall productivity (Stair and Reynolds, 2013).

3. Competitive Advantage

The right and strategic implementation of MIS can create sustainable competitive advantage. With a system that supports business analysis and data visualization, companies can identify market opportunities faster than competitors. In addition, the integrated MIS structure allows rapid adaptation to changes in technology and regulatory policies. Companies are also better prepared to face digital disruption through strategies based on data analysis and artificial intelligence (Tuban et al., 2018).

4. Digital Transformation and Culture of Change

Digital transformation and culture of change although technology plays an important role, the success of MIS is highly dependent on the readiness of human resources and organizational culture. This study shows that companies that successfully carry out digital transformation through MIS are those that actively build a culture

of change, encourage collaboration between functions, and invest in improving employee digital skills (Westerman, Bonnet, and McAfee, 2014). Employees need to be involved in the change process from the beginning so that the implementation of technology can run smoothly and reduce resistance.

5. The Company's ability to adapt to market changes.

Those who implement SIM adaptively show better ability to respond to changes in the market. This is supported by a flexible SIM structure, which is continuously updated according to the needs of the transforming business. The use of technologies such as cloud, computing, big data, and AI in SIM allows the Company to make rapid adjustments based on market conditions (Chen, Chiang, and Storey, 2012).

CONCLUSION

In today's rapid and dynamic digital era, Management Information Systems (MIS) have transformed into a crucial aspect in supporting a company's business strategy to remain competitive and able to compete with the very effective capital market trends. MIS is not just a tool for data collection, management, and implementation of tasks, but has developed into a strategic instrument that combines human, technological, and organizational elements comprehensively. With its expertise in transforming raw data into structured and meaningful information, MIS provides a solid foundation for management to make faster, more accurate, and data-based decisions. This is very vital considering today's business challenges that require responsive and appropriate responses to changes in the external and internal environment. Not only that, MIS also plays a significant role in increasing operational efficiency and company productivity by integrating various business functions into an integrated system, for example through the use of Enterprise Resource Planning (ERP) which unites financial, production, marketing, and human resource processes.

The competitive advantage gained from implementing MIS allows companies to more easily identify market opportunities, predict risks, and adjust business strategies to changing technological and regulatory developments. However, the success of MIS implementation does not only rely on technology alone, but is also greatly influenced by an organizational culture that supports innovation, adaptation, and improving employees' digital skills. By forming a flexible corporate culture and improving human resource capabilities in the field of information technology, companies can maximize the potential of MIS as the main driver of digital transformation and business innovation. Therefore, MIS becomes a strategic foundation that is inseparable from the design and implementation of modern business strategies, which ultimately function as the main key in maintaining the continuity, development, and competitiveness of companies amidst increasingly complex and tight global competition in this digital era.

SUGGESTION

1. Developing an Adaptive and Flexible Management Information System.

Companies need to design and build MIS with a foundation that can adapt agilely to changes in the digital world and market dynamics. Rigid systems will struggle to cope with the pace of technological development, hindering innovation and response to external changes. Therefore, MIS development needs to focus on modularity, scalability, and easy integration with new technologies such as AI, big data, and cloud computing. With this, companies can maximize the latest technology for faster and more accurate decision making, as well as operational efficiency.

2. Building an Organizational Culture that Supports Digital Transformation.

The success of MIS implementation is not only about technology, but also an organizational culture that supports change and innovation. Companies must create a work environment that encourages employees to be open to learning new technologies and changing business processes. This can be done through ongoing training, clear communication about the benefits of digital transformation, and providing incentives for employees who are active in MIS development. A culture that supports innovation will accelerate the adaptation and optimal use of MIS, so that companies continue to innovate and compete in an increasingly competitive market.

3. Improving Employees' Technology Skills and Digital Competencies.

One of the keys to SIM success is the ability of human resources to use and utilize information technology effectively. Therefore, companies need to invest in developing employees' digital skills through relevant training, workshops, and certifications. This skill improvement not only increases productivity but also helps employees understand the data and information generated by SIM so that it can be used for better decisions. In addition, developing digital skills also prepares employees to face the challenges of technology that continues to develop in the future.

4. Linking SIM to Business Strategy Comprehensively.

MIS should be seen as an important part of a company's business strategy, not just an administrative tool. Therefore, management needs to ensure that the development and implementation of MIS are aligned with the company's vision, mission, and strategic objectives. This integration process includes careful planning, sufficient resource allocation, and periodic evaluation to assess the effectiveness of MIS in achieving business goals. With this approach, MIS can serve as an effective tool in driving innovation, increasing competitiveness, and strengthening the company's position in the global market.

5. Conduct Regular System Evaluation and Updates.

With changing technology and evolving business needs, MIS must be constantly updated to remain relevant and effective. Companies are advised to conduct regular assessments of MIS performance, both technically and functionally, and to adapt the system to the latest technological developments and changing business needs. This evaluation can include system audits, user feedback, and analysis of MIS usage data. Consistent updates will ensure that MIS continues to be able to provide accurate, fast, and relevant information to support strategic and operational decision making.

6. Addressing the Challenge of Changing User Attitudes Using Effective Change Management Strategies.

The implementation of Management Information Systems (MIS) often encounters challenges from users, especially from employees who are still unfamiliar with new technologies or feel threatened by the changes that occur. To address these issues, organizations need to implement comprehensive change management, including effective socialization, involving users from the early stages of system development, and providing ongoing training aimed at improving the capabilities of a system. This approach can help reduce fear and confusion, and encourage optimal acceptance and use of MIS. In addition, it is very important to maintain clear communication and support from top management to create an atmosphere that supports technological change.

7. Optimizing Cost Management for the Implementation and Maintenance of Management Information Systems.

The high cost of implementing a Management Information System is often a barrier for many organizations, especially small and medium-sized businesses. Therefore, companies must plan their budget carefully and consider more economical technology solutions, such as cloud-based platforms or open-source systems that can reduce spending on hardware and software licenses. In addition, regular allocation of funds for system maintenance and updates is crucial for the MIS to function properly and securely. An efficient cost management strategy can support organizations to gain optimal benefits from their Management Information System without burdening their finances excessively.

8. Enhancing Data Protection and Systems to Protect Critical Information.

The attachment to technology in Management Information Systems (MIS) poses risks related to data security that need to be watched out for. Companies must implement robust security protocols, such as firewalls, data encryption, regular backup systems, and strict access controls to prevent data leaks and cyber attacks. In addition, cybersecurity training for employees is also crucial to increase understanding and awareness of potential threats that may arise. By improving security elements, companies can protect the integrity and confidentiality of data, which can ultimately maintain the trust of clients and business partners.

9. Improving System Integration to Support Collaborative Business Processes.

One of the main obstacles in implementing MIS is integration with existing systems in the company. Thus, companies must design a Management Information System (MIS) that has high capabilities to operate interactively, so that it can be connected to various other applications and platforms well. Good integration will facilitate information communication between departments, reduce data duplication, and accelerate business processes. Organizations are advised to implement open technology standards and modular system architectures, so that future development and adjustments can be done more easily.

10. Motivating Management Commitment and Ensuring Strong Leadership in the MIS Implementation Process.

The success of a Management Information System (MIS) is highly dependent on the commitment and support of top management. Visionary and proactive leadership will ensure that the implementation of the MIS receives adequate resources, thorough planning, and continuous monitoring. Management must also actively monitor the progress of the project, address any challenges that may arise, and ensure that the MIS is in harmony with the company's strategic objectives. With strong leadership, the implementation of the MIS can be more efficient and provide important positive contributions to the performance of the organization.

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