

# The Role of Information Technology in Encouraging Strategic Management Innovation

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## ABSTRACT

The development of information technology has had a significant impact on the way organizations manage and design their business strategies. This research aims to investigate the role of information technology in driving strategic management innovation in various organizations. This research uses a qualitative approach with descriptive methods. The results of this research show that the role of information technology in encouraging innovation in strategic management has a significant positive impact. The integration of information technology in business strategy opens up opportunities for increased operational efficiency, deeper understanding of the market, and flexibility in dealing with changes in the business environment. The application of predictive analysis and artificial intelligence contributes to forecasting market trends and identifying new opportunities, while cloud computing technology supports scalability and flexible access to computing resources. Data protection and information security through information technology are crucial elements in building customer trust. Overall, the results of this research confirm that the integration of information technology not only increases a company's competitiveness, but also creates an environment that supports sustainable innovation in strategic management.

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## INTRODUCTION

Globalization is a phenomenon that has changed the business landscape significantly, creating a very competitive and dynamic market (Budiarti, 2023). Increasingly complex business competition is one of the main impacts of globalization, forcing companies to adapt to changes on a global scale (Anatan, 2005). In facing this challenge, companies are now proactively developing strategies to gain competitive advantage. They understand that in a globally connected world, competitive advantage is the key to survival and growth (Kuncoro, 2020). Efforts to achieve competitive advantage involve improving operational efficiency, product and service innovation, and focusing on customer service.

Companies are also increasingly realizing the importance of global collaboration, strategic partnerships, and adaptation to technological developments to remain competitive in an ever-changing global market (Arifin, 2010). In this context, company management is key in overcoming the complexities faced by globalization. Management must have strong global insight, be able to identify opportunities and risks in international markets, and develop strategies that are responsive to global dynamics (Mulyani, 2017). Meanwhile, managing human resources, technology and supply chains is also a crucial aspect in creating competitive advantage (Tarigan, 2012)

In his concept, Porter (1985) emphasized the importance of competitive advantage as a key element in a company's competitive strategy. Competitive advantage not only includes how a company competes, but also involves setting goals, plans and policies that will support the achievement of these goals. Porter identified that competitive strategy allows companies to achieve competitive advantage in the industry, which can be manifested in various aspects such as cost, quality, and speed. This advantage is not just limited to distinguishing itself from competitors, but rather leads to market control and creating profits that are greater than the industry average. By understanding and implementing appropriate competitive strategies, companies can position themselves uniquely in the market, create significant differentiation, and achieve better financial results (Ma, 2000).

Furthermore, Porter (2011) highlights that competitive strategies must consider industry complexity and market dynamics. This strategy is not only about how to deal with direct competitors, but also about adapting to changes in the external environment and anticipating market needs. By combining cost policies, product differentiation, and operational efficiency, companies can build a solid foundation to achieve and maintain long-term competitive advantage (Mekic & Mekic, 2014). Thus, the concept of competitive advantage offers a holistic view of how companies can achieve excellence and win competition in increasingly fierce industry levels.

In recent years, companies have increasingly integrated information technology (IT) as an integral part of their business operations. Information technology is not just a tool for processing data, but is the main driver in optimizing various business processes (Saputra et al, 2023). IT helps in managing data efficiently, from receipt to storage, as well as manipulating data to create quality information. The successful use of IT lies in its ability to provide relevant, timely and complete information to meet the needs of individuals, companies and governments (Prinawanti & Ali, 2022). By utilizing tools such as computers, companies can create added value through the information produced, which is then used as a basis for better decision making (Irmawati, 2011).

As the level of competition increases at the global level, companies are faced with pressure to continuously improve the effectiveness and efficiency of their operations (Maharsi, 2000). In this context, the use of IT is not only considered a necessity, but also a key to achieving competitive advantage. Business organizations and companies are slowly realizing that IT implementation is not just about following trends, but rather about creating operational activities and tactics that can provide significant advantages (Prakoso, 2005). By utilizing IT intelligently, companies can face these pressures more resiliently, optimize their performance, and gain advantage in an ever-changing market (Ismail, 2017).

Innovation in strategic management refers to the ability of an organization to introduce new ideas, approaches, or processes that bring significant changes in the way they plan, implement, and manage business strategies (Novianto, 2019). This innovation can appear in various forms, including product innovation, process innovation, marketing innovation, and organizational innovation (Anwar, 2020). In the context of strategic management, innovation does not only involve the development of new products or services, but also includes the adoption of new strategies that provide competitive

advantages, the application of advanced information technology, or changes in organizational structures to increase responsiveness and flexibility (Suherman, 2022).

Innovation in strategic management also means having the ability to adapt to changes in the external environment, such as market developments, technology or government policies (Kurniati, 2014). Organizations that are able to produce strategic innovation can create long-term competitive advantages, because they are better prepared to face challenges and take advantage of emerging opportunities (Pudjiarti & Putranti, 2020). The success of innovation in strategic management lies not only in creativity in generating new ideas, but also in the ability to manage the innovation process, integrate it with existing business strategies, and carry it out effectively to achieve organizational goals (Sayudin, 2023). Thus, innovation in strategic management is the key to achieving sustainable competitiveness and long-term success in an ever-changing business environment.

The aim of the research entitled "The Role of Information Technology in Driving Strategic Management Innovation" is to investigate and understand how the application of information technology can contribute to encouraging innovation in the context of strategic management in various organizations. It is hoped that this research will be useful in providing deeper insight into how organizations can optimally utilize information technology to achieve flexibility, responsiveness and innovation in formulating and implementing business strategies. The practical implications are expected to help stakeholders increase the use of information technology as a strategic tool to achieve their business goals in this era.

## METHOD

In this research, the author chose to use a qualitative descriptive approach as a method to describe, analyze and understand the phenomenon being researched. Qualitative methods were chosen because the aim was to investigate phenomena in depth in real life contexts. The aim of this research is to create a systematic, factual and accurate description of the characteristics and relationships of the phenomena that are the focus of the research (Moleong, 2014). Data collection techniques were carried out through library studies, using various literary sources such as books, magazines, journals and previous research reports. It is hoped that the use of literature can provide information that is relevant to research and avoid duplication of results. In accordance with Yulianah (2022), library studies can provide benefits for researchers in utilizing all information and thoughts that are relevant to their research.

## RESULTS AND DISCUSSION

The role of information technology in driving innovation in strategic management is very important and diverse. Some of these key roles include:

1. Data Collection and Analysis

Data collection and analysis is a critical aspect of strategic management, and information technology has a central role in facilitating this process. Through sophisticated information systems, companies can collect data from various internal and external sources

more quickly and efficiently. Big data technologies enable organizations to handle large and complex volumes of data, while data analysis algorithms can help identify patterns, trends and insights that may not be visible through conventional methods. In this way, information technology not only supports data collection, but also enriches an organization's understanding of its business environment.

Data analysis supported by information technology is not only about processing existing information, but also about formulating strategies based on those findings. Through a deeper understanding of customer behavior, market trends, and other external factors, companies can adapt their strategies more responsively. With information technology, organizations have the ability to make more accurate predictions, design more focused marketing strategies, and optimize their supply chains. Overall, the role of information technology in data collection and analysis creates a strong foundation for informational and intelligent strategic decision making.

## 2. Improved Communication and Collaboration

Increasing communication and collaboration through information technology is a key element in encouraging innovation in strategic management. Collaborative applications, such as cloud-based platforms, allow teams and departments to communicate in real-time, even if they are in different geographic locations. This not only increases efficiency in the exchange of ideas and information, but also opens up space for more creative and innovative collaboration. The application of this technology allows strategic management teams to work together to develop and implement strategies in a more coordinated manner, reducing communication barriers and speeding up the decision-making process.

Improved communication and collaboration are also supported by various digital tools, such as video conferencing, web-based project platforms, and corporate social media. Innovation in strategic management often comes from the contributions of multiple stakeholders, and information technology creates a space where these ideas can circulate quickly. With increased accessibility and flexibility in communications, organizations can respond to market changes faster and more responsively. Overall, the role of information technology in improving communication and collaboration is not only accelerating the flow of information, but also creating a work environment that supports creativity and innovation at the strategic level.

## 3. Business Process Automation

Business process automation supported by information technology has a significant impact on a company's operational efficiency. Through the implementation of automated systems, routine tasks that previously consumed time and human resources can be carried out quickly and without errors. Examples of automation uses include administrative processes, transaction processing, and inventory monitoring. This not only reduces the potential for human error, but also speeds up the speed of execution of these tasks.

In addition to operational efficiency, automation gives the workforce the freedom to focus on more complex and value-added tasks. By offloading routine work to automated systems, company staff can allocate their time and energy to strategic aspects that require creative and innovative thinking. This creates an environment where human intelligence can be optimally used to develop and implement innovative strategies that support a

company's long-term growth. Thus, automation through information technology not only produces operational efficiency, but also provides competitive advantage through increased focus on innovation and business strategy.

#### 4. Increased Operational Efficiency

The use of information technology to improve operational efficiency is specifically manifested in integrated supply chain management systems. This system allows companies to more effectively manage the entire workflow from suppliers to end consumers. By involving information technology, companies can monitor inventory in real-time, respond to changes in market demand more quickly, and optimize distribution processes. An integrated supply chain management system also provides better visibility of the entire supply network, allowing companies to identify potential risks and opportunities that may arise in their supply chain.

In addition, information technology supports companies in managing relationships with suppliers and business partners. Specialized information systems can facilitate collaboration and exchange of information between companies and suppliers, ensuring the reliability and quality of raw materials. This not only increases efficiency in the supply chain, but also gives companies the ability to develop strategic partnerships that can support product and service innovation. By leveraging information technology to create more integrated and adaptive supply chains, companies can increase their flexibility in responding to market changes and create more innovative and efficient management strategies.

#### 5. E-commerce and Digital Marketing:

Information technology supports digital marketing and e-commerce strategies, enabling companies to reach global markets, increase brand visibility and respond more quickly to market trends.

#### 6. Predictive Analytics and Artificial Intelligence

Information technology has been a major catalyst in changing the marketing paradigm by enabling the adoption of digital marketing and e-commerce strategies. By utilizing digital platforms, companies can target audiences more specifically, measure campaign performance in real-time, and interact directly with consumers through various online channels. Digital marketing strategies utilize social media, search engines, and digital content to create more personalized interactions with customers. This not only provides greater brand visibility, but also allows companies to respond quickly to market dynamics and modify their marketing strategies directly according to customer needs and responses.

Meanwhile, information technology is also a key driver in the growth of e-commerce, opening the door for companies to reach global markets more effectively. The existence of online stores allows consumers from various parts of the world to access and purchase products or services without geographical restrictions. Easy and secure transaction processes, as well as the adoption of online payment technology, facilitate a more comfortable and efficient shopping experience. Additionally, information technology allows companies to collect and analyze purchasing data in depth, helping them understand consumer behavior and design more targeted marketing strategies. By integrating digital marketing and e-commerce, companies can gain a wider market share, strengthen their



brand image, and remain responsive to changing trends and consumer needs on a global scale.

#### 7. Adoption of Cloud Computing

Cloud computing technology is having a revolutionary impact on the way companies manage computing resources. Through a cloud-based service model, companies can access computing resources flexibly according to their needs. This allows organizations to avoid large upfront investments in physical infrastructure, replacing it with a subscription-based or pay-as-you-go model. By using this technology, companies can easily adjust their computing capacity as demand fluctuates, ensuring efficient and optimal use of resources.

The use of cloud computing technology also provides significant benefits in data storage and management. Cloud services provide scalable storage space and can be accessed from multiple locations, enabling teams working in a distributed manner to share and access data easily. Continuous data storage in the cloud also provides a high level of security, including reliable authentication and encryption mechanisms. This supports business strategy by ensuring operational continuity and the availability of data necessary for decision making. By utilizing cloud computing technology, companies can achieve high flexibility, efficiency and scalability in carrying out their business strategies in this digital era.

#### 8. Information Security

Data protection and information security are the main focus in company strategic management in the current digital era. With increasing cyber security threats and attacks on sensitive data, companies are required to prioritize protecting their information as an integral part of their business strategy. Information technology provides a variety of tools and solutions that companies can use to identify, prevent, and respond to potential security breaches. For example, the use of firewalls, data encryption, and intrusion detection systems are some examples of technologies used to protect company data and information systems.

In addition, the importance of information security is not only related to technological aspects alone, but also involves the implementation of appropriate policies and practices. Companies must develop clear information security policies and involve training employees to understand and comply with established security standards. Customer trust is a key factor in business success, and strong data protection is the foundation for building and maintaining that trust. By keeping information secure, companies can ensure that customer data and critical business information remains safe, strengthen brand reputation, and create a stable and trusted environment for stakeholders. Thus, the integration of information security in strategic management becomes crucial to achieving long-term success in an increasingly digitally connected market.

### CONCLUSION

The integration of information technology with strategic management is not only the key to increasing a company's competitiveness in an ever-changing market, but also creates a fertile environment for the development of sustainable innovation. By leveraging information technology, companies can respond more quickly to market changes, increase

operational efficiency and expand their business reach. Moreover, information technology provides a strong foundation for the development of innovation through in-depth data collection and analysis, more effective collaboration, and the use of artificial intelligence tools. By creating synergy between information technology and strategic management, companies can not only survive amidst the dynamics of modern business but also become pioneers in designing innovative solutions that have long-term positive impacts. Therefore, this integration not only results in operational effectiveness, but also opens the door to the exploration of new ideas, creating a solid foundation for corporate success in this digital era.

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