



# Benefits and Challenges of Technology and Information Systems on Performance

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## Abstract

In this modern era, technology and information systems are very important in business. explore the relationship between technology, information systems, and organizational performance. The aim of this paper is to provide a better understanding of the role of information technology and systems in improving organizational performance and consider the challenges that may occur. The right methodology for analyzing the topic of technology, information system, and performance is to use a qualitative approach. Information technology and systems have become important components of organizational performance. These systems improve efficiency, communication, decision-making, innovation and more. However, they also present some challenges, including security risks, technical issues, costs and more. The suggestions from this research will be very useful for companies that want to improve performance through the use of technology and information systems.

**Keywords:** Technology, Information Systems, Performance

## 1.0 INTRODUCTION

In this modern era, technology and information systems are very important in business. Organizations rely on information technology and systems to manage and process information effectively, streamline business processes, and improve performance.

Information technology and systems benefit organizations by increasing operational efficiency, improving communication, enhancing the quality of decision making, and driving innovation. For example, information technology and systems can automate routine tasks thereby increasing employee efficiency and productivity. Information systems can also facilitate communication across different departments, teams and locations, increasing collaboration and performance.

In addition to benefits, information technology and systems also pose several challenges. Some of these challenges include security risks, technical issues, and costs of implementing and maintaining information technology and systems.

In this paper, researchers will explore the relationship between technology, information systems, and organizational performance. Researchers will discuss the benefits of information technology and systems on organizational performance and the challenges that may arise. The aim of this paper is to provide a better understanding of the role of information technology and systems in improving organizational performance and consider the challenges that may occur.

## 2.0 LITERATURE REVIEW

From an information perspective, the organization is seen as a functional system of information processing. To achieve efficient information processing, it is necessary to have a suitable internal structure to accurately reflect the match between the organization's ability to handle information and the amount of information required. Information Processing Theory highlights how the design and organizational structure changes according to the requirements to process certain volumes of information during its operations. Implementing green operations does not only focus on choosing the right practices within the company but also includes understanding interactions with wider external stakeholders such as supply chain parties, environment, communities, governments, etc. Some information will be released during this process. High volumes of information can be a

big challenge for companies with limited information processing capacity. A well-designed eco-friendly information system can overcome this problem by enabling efficient communication with various external stakeholders, as well as effective control and management of internal operations (Sudarno et al., 2022).

The rapid development of information systems and technology makes it a competitive weapon that must be owned by companies in winning the competition. The application of systems and information technology can be said to be successful if it can improve employee performance. Through the application of information systems and technology companies need to prepare human resources (HR). Ease in various aspects of business activities cannot be separated from the role of IT which is able to provide innovation in every development (Ratna et al., 2020).

Innovative IT essentially reshapes business processes and organizations. They have changed the whole relationship between IT and the rest of the organization. This new way of managing information (Chandra et al., 2018; Renaldo et al., 2021; Renaldo, Jollyta, et al., 2022) has been both a challenge and an extraordinary opportunity for organizations, but to take advantage of this opportunity requires a change in culture, mindset, and skills (Wamba-Taguimdje et al., 2020).

The dependency on technology in the workplace has increased tremendously. Technology is no longer a resource for employees to achieve organizational goals and objectives; rather it has become an organizational actor that increases employee accessibility to the organization (Delpechitre et al., 2019).

Conceptually, useful technology affects performance because information systems facilitate the work of individuals in achieving their goals. For industrial psychology, tool factors, such as technology, can facilitate or hinder individual performance. Blumberg and Pringle (1982), for example, show that an organization may have motivated and competent staff but if the tools are unavailable or unsuitable, this will become a bottleneck that can even eliminate production altogether (Bravo et al., 2015).

Accounting information systems have an important role in a company. Accounting information systems provide assistance in the decision-making process. The conclusion is that a good information system must have the principle of suitability of the system design with the objectives of the information system and the company. Accounting information systems are basically designed and implemented to provide information to company management. From the results of this accounting information system, information will be obtained needed for decision making in achieving company goals (Renaldo et al., 2021).

### 3.0 METHODOLOGY

The appropriate methodology for analyzing technology, information systems, and performance topics is to use a qualitative approach. Qualitative approaches involve detailed and interpretive analysis of data, such as conducting interviews with subject matter experts, studying scientific literature and publications, and conducting case studies. This helps me gain a deeper understanding of issues and problems related to business intelligence in accounting (Renaldo, Suhardjo, et al., 2022).

### 4.0 RESULTS AND DISCUSSION

#### **Benefits of Technology and Information Systems on Performance**

Information technology and systems have a significant impact on organizational performance. These benefits include:

1. **Improved Efficiency:** Information technology and systems automate routine tasks, reduce errors, and save time, thereby increasing efficiency and productivity. The use of information technology and systems can help organizations automate repetitive and time-consuming tasks, thereby increasing operational efficiency and reducing costs.
2. **Enhanced Communication:** Information systems facilitate communication across different departments, teams and locations. This enhanced communication improves collaboration, which, in turn, improves performance.
3. **Better Decision Making:** Information systems provide accurate and real-time data, enabling organizations to make informed decisions. This, in turn, improves performance by reducing the chances of making costly mistakes. Information technology and systems can assist organizations in collecting, processing, and analyzing data more effectively, thereby increasing the quality of decision making.
4. **Enhanced Innovation:** Information technology and systems enable organizations to explore new opportunities, develop new products and services, and enter new markets. This increased innovation can improve performance significantly.
5. **Increased productivity:** Effective technology and information systems can help employees' complete tasks more quickly and efficiently, thus increasing employee productivity.
6. **Improved collaboration and communication:** Information technology and systems can facilitate better collaboration and communication between employees and departments, including among employees who are separated by distance and time.

7. Improved information security: Effective information technology and systems can help organizations to secure data and information, thereby reducing security and privacy risks.
8. Provision of better access to information: Information technology and systems can provide better and real-time access to information, thereby enabling employees to access the information needed to carry out their duties more effectively.
9. Provision of better customer service: Information technology and systems can assist organizations in providing better customer service, including among others new, innovative and more accessible services.

### **Technology and Information System Challenges on Performance**

While information technology and systems provide many benefits, they also present some challenges. These challenges include:

1. Security Risk: As information systems become more interconnected, the risk of cyberthreats, such as data breaches and hacking, increases. These security risks can negatively impact performance by disrupting operations, damaging reputation and incurring legal costs.
2. Technical Issues: Technical issues such as software glitches, hardware malfunctions and system downtime can have a significant impact on organizational performance. These issues can cause delays, reduce productivity, and increase costs.
3. Cost: Implementing and maintaining information technology and systems can be expensive. Organizations must balance the costs of these systems against the potential benefits and consider the return on investment. Implementation of information technology and systems can be expensive, including costs for hardware, software, and employee training. Organizations need to consider long-term implementation and maintenance costs so as not to become a financial burden.
4. Dependence on technology: Over-reliance on information technology and systems can represent a high risk in the event of a system breakdown, hardware or software failure, or even a cyber-attack. Therefore, organizations must have an effective disaster recovery plan and data backup.
5. Security challenges: Information technologies and systems used by organizations can also open security holes. Security risks include data loss, identity theft, malware and cyberattacks. Organizations need to have a strong information security policy and conduct training for employees to maintain information security.
6. System integration: Differences in data formats and infrastructure between old and new systems can hinder effective system integration and can result in errors in data processing. Therefore, it is necessary to identify and correct these integration problems in order to avoid obstacles in benefiting from information technology and systems.
7. Skills of employees: The application of new technologies and information systems often requires high technical skills, and not all employees may have these skills. Therefore, organizations need to consider employee training and development so that they are ready to use new information technology and systems.
8. Privacy issues: In collecting and using consumer data, companies must pay attention to user privacy and compliance with privacy regulations. One of the challenges organizations face in this regard is ensuring that users fully understand how their data is used and that it is treated in an ethical and responsible manner.
9. System complexity: Information systems can become very complex, especially in large and complex organizations, resulting in difficulties in management and maintenance. Therefore, organizations need to have good management processes and effective planning of information systems to optimize system performance.

## **5.0 CONCLUSION**

### **Conclusion**

Information technology and systems have become important components of organizational performance. This system improves efficiency, communication, decision making, and innovation. However, they also present some challenges, including security risks, technical issues and costs. Organizations must weigh the benefits and challenges of these systems to determine the best approach for their organization. In the end, the use of technology and information systems can improve organizational performance, but must be managed strategically and focus on risk mitigation.

### **Recommendation**

Following are some suggestions for research regarding the relationship between technology and information systems and organizational performance:

1. Analysis of the impact of information technology and systems on operational efficiency and employee productivity. Research can look at how information technology and systems can improve operating efficiency

and employee productivity. For example, research can evaluate the effectiveness of automating routine tasks, using software or applications, and information management systems.

2. The influence of technology and information systems on decision making. Research can see how the use of technology and information systems can improve the quality of decision making. This research can examine the effectiveness of information systems in providing information needed for decision making, as well as how information systems can help make better decisions.
3. Analysis of the benefits of information technology and systems on collaboration and communication within the organization. Research can evaluate the benefits of information technology and systems in improving communication and collaboration among different employees, teams, departments and locations. For example, research can evaluate the use of file sharing applications, video conferencing, and project management systems.
4. Analysis of technology challenges and information systems on information security. Research can evaluate the security risks associated with the use of information technology and systems. This research can look at how organizations can minimize security risks and develop effective strategies to address security challenges.
5. Evaluation of implementation and maintenance costs of information technology and systems. Research can examine the costs of implementing and maintaining information technology and systems, and how this affects organizational performance. This research can help organizations consider the necessary costs and develop effective strategies to manage those costs.

All of the suggestions above can help broaden understanding of the relationship between technology and information systems and organizational performance.

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