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# Do Information Systems Today Play a Strategic Role in Business?

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### ABSTRACT

An information system is a combination of software, hardware, and telecommunication networks to collect useful data, especially in an organisation. Many businesses use information technology to complete and manage their operations, interact with their consumers, and stay ahead of their competition. The purpose of this study is to analyze and investigate the strategic role of information systems in modern enterprises. We analyze the components of information systems and their overall functions, as well as the importance of keeping the information system and organizational strategy aligned. By analyzing the influence of digital connection on enterprises, this paper expounds the adoption of information system in enterprises. We analyze the reasons why information systems have a significant impact on organizational operations, and the goals of an enterprise's adoption of information systems. The relationship between proper information system and improving the efficiency of company operation is analyzed. In business operation, small and medium-sized enterprises regard information system as a priority, and the impact of strategic information system on enterprises. From the above, we conclude the value of information systems in contemporary enterprises, increasing productivity, reducing resource use, and making data collection more efficient.

## 1. Introduction

The usage of computer science research during the 1960s, which attempted to coordinate the development of data processing applications inside corporate settings [1] led to the founding of the academic discipline of information systems. This was the impetus for the establishment of information systems as a field of study. Since it was first established, the discipline of information systems has broadened its focus to include the study of how organizations react to the constant problems brought about by advances in information and communication technology. According to Coelho et al. [2], Chisanthi believes that one of the primary assets of the region is in its capacity to successfully confront the extensive variety of issues that businesses encounter when they wish to capitalize on the potential advantages presented by developing technologies. This is one of the fundamental characteristics that the area has.

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In today's modern culture, the integration of various information systems has developed into an indispensable component. It is impossible to stress how important it is for a network to be resilient as it grows into larger systems, which are often necessary to both day-to-day living and the operations of businesses [3]. A great number of businesses depend on information systems (IS) to carry out and monitor their operations, as well as to keep in touch with their customers. Businesses in the modern day, such as Alibaba, eBay, Amazon, and Google, are very dependent on the information system (IS) infrastructure that supports their business.

The area of Strategic Information Systems is garnering an increasing amount of attention, not just from the corporate world but also from the academic community [4]. For organizations to be successful in accomplishing their goals and objectives, they need to participate in the process of strategic alignment of their IT portfolio. This is a procedure that may be made easier by the deployment of strategic information system planning (SISP) [5]. In addition to expressing the author's views on the topic, the objective of this essay is to perform an analytical investigation of the strategic role that information systems play in modern businesses.

## **2. Strategic Information Systems**

Information systems are made up of several different components that work together to gather, store, and analyze data in order to improve comprehension, expedite the conveyance of information, and develop digital products that help with decision-making. Planning for the long term, planning for the medium term, planning for the near term, and planning for the short term include all parts in the process of planning strategic information systems. These components are used to enhance the overall functioning of the company. The formulation of information systems strategies that are in line with the business goals and help ease their implementation is where the major attention is placed. Managers may give the use of formal approaches for strategic management and information processing a higher priority. This allows them to concentrate on strategies, structures, and procedures that are designed to improve the performance of the corporation. It is impossible to emphasize the significance of making investments in information technology since these investments have a significant influence not only on the performance of businesses but also on the capacity of company executives to connect corporate strategy with the performance of their organizations [6].

It is essential for managers to develop information systems that align with the strategic objectives of the organization and facilitate decision-making in the complex and uncertain contemporary business landscape [7]. To increase productivity and achieve a competitive advantage, it is essential for managers to develop information systems that align with the strategic objectives of the organization. The global financial environment is now marked by a significantly increased degree of complexity as well as unpredictability as a direct result of the financial crisis. Because of the current state of the environment, businesses could have monetary challenges in addition to a lack of managerial, technical, and human resources [8-10].

Information systems have a substantial influence on a company's ability to efficiently run its operations in the modern organizational environment, which places a premium on efficiency in business operations. According to [10], the use of this technology gives managers the ability to get data that is accurate and up to date, to carry out exhaustive analysis of fluctuations, and to make educated forecasts about future trends in a setting that is characterized by uncertainty.

The inclusion of organizational performance and the realization of that performance is what makes the influence of information systems on organizational operations so significant [11]. Managers may make the adoption of formal processes for strategic management and information processing a priority to prioritize the execution of plans, structures, and procedures that are targeted

at improving the performance of the corporation. According to Chatzoglou et al., technological innovation has taken the lead as the most prominent sector for financial investment.

The proliferation of digital connection has had a tremendous influence not only on the functioning of people but also of businesses [12]. As a result, there has been a fast adoption of corporate information systems to improve capabilities related to productivity, value generation, and creativity. According to Chatzoglou et al., one measure of congruence is how well the company plan and the information systems strategy fit with one another. For businesses to keep their advantage over the competition, they need to ensure that their information technology strategy is aligned with their business plan. Only in the context of alignment at the corporate level is the good effect on performance observed, but not all aspects of alignment have the same degree of relevance in terms of how important they are. Individuals and institutions alike have been profoundly influenced by the rise of digital connectedness, which has in turn revolutionized the way in which both are able to function. Because of this, there has been a fast adoption of corporate information systems, the major goal of which is to enhance productivity, value, and the ability for innovation. Drawing on previous research carried out over a five-year period beginning in 2015 and ending in 2019, the current study investigates the capital-output of firm management during the whole process of digital transformation. This research has investigated the deep integration of informatization with industrialization. The relationship between the amount of input that a company receives via digitalization and its level of efficiency follows a nonlinear pattern [13]. This pattern is defined by an early decrease, which is then followed by an acceleration up until it reaches the inflection point, which then leads to an increase. When compared to the elasticity of labor production, the amount of elasticity is far more significant. Based on the findings of empirical research, the first-mover advantage in the field of corporate digital management has undergone substantial development. Modern businesses recognize that investing in the proper information systems is one of the most effective and vital ways to gain a competitive edge, and as a result, they are making concerted efforts to improve their operational efficiency via the use of these technologies. According to Ullah and Lai [14] and Zubovic et al., organizations may embrace digitalization as an innovative method to improve their levels of production and efficiency. There is the possibility that an increase in production and efficiency, as well as a competitive advantage, might be achieved via the appropriate use of information systems and technology. Numerous studies have shown that planning for strategic information systems has an effect on the overall performance of a business. The research that was carried out by Kamariotou and Kitsios [15] contributes to our knowledge of executives working in Information Systems (IS) in Greek small and medium-sized organizations (SMEs). According to the findings of this study [16] these executives tend to place a higher priority on technical concerns than they do on strategic planning when it comes to the deployment of IS. The current corpus of management literature has offered evidence to support the view that with the advent of information technology, there is an increased acceptance and use of this technology by small and medium-sized firms. This technology is used to support the notion that there is an increased adoption and use of this technology by small and medium-sized enterprises. In addition to this, these companies have a propensity to include technology into their operating procedures in a more comprehensive manner. In addition, the success of the strategic planning of information systems (IS) strongly depends on the active engagement of users as well as the solid support from top management. The success of the Strategic Information Systems Planning (SISP) is dependent not only on the co-operation and collaboration of the many stakeholders, but also on the growth of their capabilities. Yaokumah [17] is the author of research that was carried out in which the author participated in conversations with executives from 21 notable companies in order to acquire their viewpoints on information technology systems. The purpose of the research was to investigate the role that management

commitment and support play in propelling the development of information systems. According to the data that Hammouri et al. (2015) uncovered, a substantial majority of leaders, namely 76%, said that they were pleased. Since SISP needs sufficient funds in order to accomplish its long-term goals, the availability of financial resources is a critical factor in determining whether or not the program will be successful. These goals include several different facets, including the reduction of costs, the improvement of data accessibility, the expansion of productivity, the reduction of wasted time, and the enhancement of decision-making capacities. Because it demonstrated that the leadership supported the system being implemented, the research served as a foundation for its continuous implementation. Therefore, for managers to be successful in developing and implementing an information systems (IS) strategy that is in line with the business objectives and improves the performance of small and medium-sized businesses (SMEs), they need to recognize the relevance of a strategic IS.

### **3. Critical Analysis Information**

In contrast to what most people believe, not all applications of information systems provide the expected levels of performance. According to Al-Ammary et al. [7], the components of information systems include infrastructure, data, applications, and most significantly, the people who utilize the company's information technology services. If the design of an IT asset, such as a newly adopted mission-critical system, is not in agreement with the strategic direction or does not match the expectations of its users, the outcomes may not be up to par. One example of this would be if a mission-critical system was only recently adopted.

For instance, COVID-19 necessitates significant technical improvements to be made to the information systems of businesses [18]. Business systems are currently faced with new technical issues because of the infrastructure that enables remote work, virtual meetings, contactless commerce, privacy protection, cybersecurity, data analytics, and data-driven decision-making processes. During the "New Normal" phase that follows COVID-19, businesses have a dual responsibility: first, they must guarantee that the newly implemented system is incorporated into the established organizational norms and processes, and second, they must ensure that their workers continue to make use of the system.

In addition, the method in which certain businesses are currently functioning might be disrupted by information technology [19]. One example of this would be the fact that some businesses already have markets for their products that are quite safe. Despite the current climate, many businesses that are in precarious positions continue to fail to provide enough attention to the process of information capture and use. It is not entirely clear how the availability of information impacts the efficiency with which an organization operates. Some companies are successful based on their intuition, hunches, and random chance, while others are unsuccessful in spite of considerable investments in information technology. They still don't completely comprehend how to use it, much alone what information from the database of the information systems they will need to use within the statute of limits. Additionally, they don't fully understand what information they will need to use during the statute of limitations.

Another disadvantage that is sometimes overlooked is the need for the use of advanced technology to support the information system. Some specific groups are put at a disadvantage because of this, with those who are deaf being at a relative disadvantage because audio-related communications are more inaccessible to them, and individuals who are dyslexic also being at a relative disadvantage because of the increasing number of text-based systems. In addition, workers are often not amiable since they are required to do work outside the company daily while receiving a very low wage. It is not in keeping with their wage for them to have a whole collection of electronics

and to always update those gadgets. Because the starting equipment or training equipment to use it is both unusual and costly, the start of the information system is neither low for a restricted number of small firms, nor is its popularity low for those businesses. Building strategic information systems requires a substantial financial investment on the part of businesses, both in terms of their income and the amount spent on research and development.

The information system comes with a greater number of benefits than it does drawbacks. When the information system of an organization reaches a critical point, strategic planning for the information system becomes the utmost significance. For an organization to accomplish its objectives and provide support for the execution of its business strategies, it will use a process that is known as strategic information system planning to determine its portfolio of information technology applications.

In addition, it is essential for businesses to achieve the level of performance required by information systems that make it possible for users to share resources and remain connected to those resources [20]. Therefore, contemporary organizations should incorporate strategic information systems as a crucial step if they want to boost their performance in producing the components of information system development and achieve the best possible degree of efficiency and productivity.

Nevertheless, the challenges that were presented before are not insurmountable. The first example is the unavoidable information gap that is caused by events that occur outside of the organization. The instability will influence all the firms that are now functioning in the market, but it will also provide new opportunities and overall improve things. Concerning the second and third reasons, these problems will become less of a problem as the economy continues to develop and as technological advancements continue to be made. In the future, there will be certain instruments that are suitable for certain groups and are easy to use. Additionally, the cost of equipment and enormous data sets will become more affordable. In addition to everything else, the training system is going to be improved.

#### **4. Conclusion**

Do modern-day firms continue to find value in using information management systems as a strategic tool? The truthfulness of the affirmative response cannot be called into question under any circumstances. The potential advantages that come with using the information system much outweigh any disadvantages that could arise from using it. It is possible to collect data in a more efficient and timely manner while using less resources than previous methods. Nevertheless, companies have a responsibility to put a high emphasis on the design of their Strategic information systems and to ensure that they remain current about the progression of the settings in which they operate.

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