



ADAPTING THE FIRMS INFORMATION SYSTEMS TO EVER CHANGING BUSINESS PROCESSES

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Joshua CHIBUIKE SOPURU ^{a,*}

^a GIRNE AMERICAN UNIVERSITY

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ABSTRACT

In the contemporary landscape, businesses face intense competition, each vying to outperform others to enhance economic indicators, bolster work productivity and efficiency, cut costs, and reap various advantages through the integration of comprehensive information systems. Strategic placement of information systems can yield a positive impact across diverse business domains as they pursue these objectives. To optimize internal and external processes, along with financial performances, the implementation of a robust information system is crucial. Our study draws on a Unified Theory of Acceptance and Use of Technology, along with the Task-Technology Fit Theory proposed by Goodhue and Thompson, both supporting our research. Our findings shed light on distinct information systems, underscore the significance of information systems in business processes, and illuminate the influence of information systems on both internal and external facets of modern business processes.

1. INTRODUCTION

In our rapidly evolving world, where customer needs and preferences change swiftly, only businesses that can keep pace with innovations and adapt by adjusting their processes can maintain performance at the required level and stay competitive. The success of enterprises in recent years is closely tied to the level and quality of information technologies used, emphasizing the importance of correctly utilizing information. Information systems (IS) have seen a significant rise in importance over the past decade as more businesses implement them. A modern organization cannot function efficiently without an effective information system. Our research, drawing on the Unified Theory of Acceptance and Use of Technology and the Task-Technology Fit Theory, underscores the importance of information systems in both internal and external business processes.

Continuous technological development has not only

improved hardware and software performance, lowered prices, and expanded the choice of information systems but has also been a driving force behind the global proliferation of computerized systems.

An Information System revolves around collecting, processing, storing, and transmitting relevant information to support management operations in organizations. Decision-making, at the core of administrative processes, relies heavily on available information. A business process is a series of linked tasks culminating in delivering a service or product to a client, involving clearly defined inputs and a single output contributing to added value.

Managers, as per Todd (2001) and Harizanova (2003), must assimilate data, convert it into information, draw conclusions, and make decisions aligning with business objectives. The efficient operation of organizations is

intricately linked to effective information systems (Davies, 2009), with a widely recognized understanding that a business information system is crucial for survival and competition. Properly handled information systems help companies expand, offer services, reshape jobs, redesign workflows, and modify business control methods (Lucas, 1993).

Irani (2001) contends that a successful information system brings enhanced efficiency, effectiveness, better business performance, and a stronger organizational culture. Stair and Reynold (2010) argue that a quality information system contains relevant, accurate, complete, comprehensive, detailed, flexible, reliable, and timely information, crucial for streamlined operations, decision-making, communication, reducing human labor, supporting organizational goals, enhancing productivity, and distributing complex information.

Turban (2001) suggests that information systems affect individuals by contributing to effective career completion, reducing errors, saving time in document searches, enhancing productivity, and supplying quality information for decision-making and planning. Baker (1993) emphasizes the role of computers in improving job effectiveness, aiding in decision-making, planning future activities, and facilitating follow-up and control.

The impact of information systems on business outcomes is vital, as no business can survive without information. Hence, the importance of Management Information Systems cannot be overstated in the 21st century globally.

According to Caranana (2012), information enables organizations to make more accurate decisions, and the right amount of information at the right time is crucial. Information systems play a pivotal role in an organization's functions, performance, and productivity. They contribute to efficient management in marketing, finance, production, and

personnel, relieve human minds of clerical work, and foster an information-based work culture.

2. THEORETICAL FRAME

The Unified Theory of Acceptance and Use of Technology (UTAUT) aims to elucidate user intentions and subsequent usage behavior toward information systems. This theory asserts that four key constructs—performance expectancy, effort expectancy, social influence, and facilitating conditions—directly determine usage behavior. UTAUT serves as a valuable tool for managers to gauge the likelihood of success for new technology implementations. It aids them in understanding the drivers of acceptance, enabling interventions targeted at user groups less inclined to embrace contemporary systems, mirroring the current impact of information systems on both internal and external business processes.

Task-Technology Fit (TTF) provides a robust theoretical foundation for various issues related to the influence of information technology on individual performance, including the recognition of user involvement's impact on performance. Rooted in social psychology, TTF extends two models: the Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM). TTF gauges the extent to which technology assists individuals in performing their tasks. It has been instrumental in creating a user evaluation tool for organizational assessments of information systems' exploitation in managerial decision-making.

Goodhue and Thompson devised a measure of Task-Technology Fit comprising eight factors: quality, locatability, authorization to access data, compatibility, ease of use/training, production timeliness, system reliability, and relationships with users. TTF has been applied in diverse information system contexts, including e-commerce systems, often integrated with or used as an expansion of other models. TTF undergoes adjustments to align with the

specific goals of individual studies, providing valuable insights into different information systems and their impact on business.

3. DISCOVERY

A/Types of Information Systems

Information systems can be defined as a set of components facilitating the collection, processing, and sharing of information and data through software, hardware, coreware, and organware. They serve as foundational principles for the economic development of businesses, both small and large. Awais et al. (2012) offer alternative definitions, characterizing information systems as a blend of information technology and human resources that utilize technology to support business processes, also known as the application landscape. The term "information systems" encompasses the interaction between users, algorithmic processes, information, and technology. Additionally, an information system can be seen as a semi-formal language that improves decision-making processes and supports other actions. The primary function of an information system is to process information (collect, transfer, store, and share). While various definitions exist, information systems are commonly grouped into five categories:

- Office Information Systems (OIS)
- Transaction Processing Systems (TPS)
- Management Information Systems (MIS)
- Decision Support Systems (DSS)
- Executive Support Systems (ES)

These systems are interconnected in terms of data and information flow, supporting and receiving input from one another. The integration of these systems enhances understanding and influences the improvement of business performance.

An Office Information System (OIS) enhances business processes and communication through hardware, software,

and networks, automating tasks. A Transaction Processing System (TPS) collects, stores, and processes daily transactional information, addressing routine business queries. A Management Information System (MIS) is concerned with collecting, processing, storing, and transferring essential business information to aid managerial activities, providing relevant and timely information for decision-making. A Decision Support System (DSS) assists users in analyzing business-relevant information for efficient decision-making. An Executive Support System (ESS) transforms business data into summarized reports, primarily used by executive managers for long-term planning.

B/The Importance of Information Systems in Business Performance/Processes

Information systems offer numerous benefits, including improved communication, increased efficiency, and enhanced decision-making. They play a pivotal role in monitoring business performance and ensuring the achievement of set goals. By integrating various types of information systems, businesses can effectively meet their needs in terms of relevant processes, fostering streamlined and improved operations.

Information System Stores Data:

A sophisticated information system keeps data in a database, allowing you to locate it quickly. This information can include everything from customer details to inventory lists, and beyond. In doing so, a business can develop a more complete understanding of its customers and even how much money they have in their bank account. In the business world, having this type of information can be a priceless advantage.

2. Information System Ensures Data Security:

The ability to store data in an electronic format is obviously beneficial – but it also makes the data vulnerable to any cyber threats. If a company's system were hacked into and

destroyed, all of its hard work could be gone in an instant. That's why information systems are designed to protect your company's data by using firewalls and other security measures. If there were no system, hackers could access customer credit card numbers, social security numbers, intellectual property, bank accounts, and more

3. Information System Enhances Decision

Making Ability:

A modern information system gives an organization the ability to make better and quicker decisions. Companies can now use data analytics and business intelligence tools to gain insights into their customers, their products, and even what's going on in the company. So if something goes wrong, they will know exactly what needs to be fixed, who's responsible, and how to go about fixing it.

4. Information System Enhances Productivity:

An information system can have a significant impact on a business's productivity. It provides employees with the data and tools they need to get the job done more efficiently while also making collaboration between departments a breeze.

It also gives your company an edge over its competitors by helping it learn about its customers better. It provides insight into where a company can improve – or even add new products to its catalogue.

5. Information System Provides Data Analytics Tools:

The right information system will provide a business with the analytics tools it needs. These can include everything from data warehousing and cloud storage to mobile device management and more. This allows you to take full advantage of all of that data stored, making it easier for you to learn about your customers' behavior, preferences, and needs. It also shows what works and what doesn't work within your company. In doing so, you can improve business operations from virtually every aspect, from sales to marketing to product development (Dahli-Adawi, A., &

Sopuru, J, (2023))

6. Information System Introduces New Products & Services

An information system may assist in analyzing separate processes and allow for organized work activities. The companies that use an information system have more opportunities – to learn how the organization generates, develops, and distributes services or products. Today's information system allows businesses to develop new products and services, then get them into the hands of their customers quickly. The ability to do this helps eliminate wasted time and energy while also helping avoid more costly mistakes.

7. Information System Helps Business To Achieve Goals With Ease

The right business information system can help a company meet its goals with ease by providing it insight into what's working and what needs to be improved. An information system can also help with goal setting, enabling companies to create long-term goals and short-term milestones. With tasks divided into small milestones, the organization can build something great with the least hassle and difficulty.

8. Information System Reduces Operational Costs:

Since an effective information system cuts out redundancy and wastes time by making everyone's lives easier. With the right system, a business can reduce operational costs and focus more energy on growth and development. Everyone within the organization – from executives to managers to entry-level employees – can spend their workdays focusing on what they do best.

The information system will handle everything else. It is highly automated and with most of the data-driven tasks done in the background by IT professionals with years of experience under their belts.

Using this model, businesses can focus on growth instead of spending valuable time and resources trying to fix problems.

9. Information System Helps Improve Collaboration & Teamwork:

Modern technologies have given rise to new ways for businesses, teams, and individuals to collaborate.

Because everyone will be speaking the same language with access to the same data. The right information system that's built around collaboration in mind can save a company time and money and increase productivity.

This means it won't matter what department people work in or where they are located – the information will always be there for them to use and share with their colleagues.

10. Information System Helps In Effective Communication:

With an information system, your business will have the ability to better communicate internally with its employees and externally with customers. In a word, information systems enable better communication. Whether it's between departments or across the globe, an effective system ensures that everyone is on the same page and has access to all of the information they need to do their jobs. It can help improve employee productivity as well as promote company-wide transparency.

11. Information System Enhances Business Transparency:

An information system supports cross-departmental cooperation, which is essential to meet business goals. It allows all departments within a company have access to the same set of data, regardless of how they are related or unrelated. With data present for all to view, employees will feel responsible not to meddle with anything. They will do their respective jobs and not worry about the things they cannot control.

With more businesses making plans to adopt information systems within their organization, now is the perfect time for entrepreneurs to consider the benefits that such a system

could provide. Everyone should have a good understanding of how an information system operates and what it can do. It is a valuable tool that needs to be used responsibly, to make life easier and more comfortable.

It is worth mentioning that the positive influence of information system also covers health, education and the society in general and seen below:

12. Information System Has Revolutionized Education:

The information system has changed the education process by making it more engaging. Students can look up facts and case studies and talk to experts from various fields of study. In addition, an information system eases communication for students from different parts of the world which is a great way to share ideas and learn from one another. Hence, it has made the education process more effective and productive. It has increased the well-being of the students. Developed methods of education have made this process easier, such as the replacement of books with tablets and laptops.

13. Information System Helps In Healthcare & Government Sectors:

An information system helps in the healthcare sector by providing access to vital patient data. It also gives medical professionals the ability to communicate with each other. As for the government, an information system can help keep track of demographic information on citizens across various regions. This is crucial when it comes to emergency response – particularly during national disasters or terrorist attacks.

14. Information System Links To Economy & Global Trends:

Information systems interact with modern economies by helping to drive the global flow of information, which facilitates transactions between multiple parties. Today's businesses can also use an information system to track their financial performance compared to business leaders in other industries – including those at their competitors' companies.

Businesses can make better-informed decisions about how their pricing and marketing strategies could help them gain a larger market share. An information system is also essential for global trends by allowing people to monitor patterns and other events across the world that may influence their lives in some way. For instance, an information system can study how climate change affects a certain region – which could help predict a direct impact on the economy. This way, IS has helped people connect by linking to various aspects of the economy and global trends.

15. Information System Is Crucial To Society:

As information technology became more common in advanced nations and civilizations, several societal and ethical concerns have risen to the forefront. Individual privacy, property rights, universal access and free speech, informational accuracy, and quality of life are the most significant issues. Concerns about software piracy to cyber warfare are raised in the business world.

An information system is a vital component of the modern-day world. It would be very difficult to live, work and play without any technology – because it mitigates the risks associated with today’s burning issues. Information systems eases every aspect of community life – from economy to right to vote, healthcare to government services, etc. Thus, positively impacting business processes.

With the constant change and evolution of customer preferences and requirements – businesses that can bring about new methods and innovative techniques can survive the market and continue to function as per the customer demands. The implementation of information system can benefit a lot in businesses and helps in controlling the internal and external processes.

C/ How Information Systems Influence External and Internal Modern Business Processes

With the constant change and evolution of customer preferences and requirements – businesses that can bring

about new methods and innovative techniques can survive the market and continue to function as per the customer demands. The implementation of information system can benefit a lot in businesses and helps in controlling the internal and external processes.

Following are the benefits of information system:

New Products and Services

Any business striving to enhance and to give a strong hold on the future has to instill a well organized Business Information System. An IS can help in analyzing independent processes and enables organized work activities. Hence an information system entitles the companies to understand how the company generates, develops and sells the services or products.

Information Storage

Keeping a log of activities is important for all the organizations, to understand the reason for the problems and so to provide solution to the same. Business Information System makes it simple to store operational data, revision histories, communication records and documents. The storing of data manually involves a lot of time and money. A sophisticated Information system stores the information in the database which simplifies the process of finding the data easily.

Simplified Decision Making

Business Information System, eases the process of decision making and simplifies the process of delivering the required information and hence assists in taking better decisions instantly.

Behavioral Change

Business Information System can be effectively implemented to help communication better between the employers and the employees. Information Systems work better as it stores documents and files in folders that can be accessed and shared by the employees. This ensures to oversee the flow of information between the management

and the lower-level employees. This also allows the front-line employees to be a part of the decision making process and hence feel motivated and committed towards doing a task.

4. CONCLUSION

Based on the analysis of theoretical aspects pertaining to influence of information systems on business performance and processes, the following conclusions could be made:

- The growing need for information in today's world requires the development of information systems. Every enterprise should follow the news on the latest information technology solutions for business management that appear on the market and offer to improve business management methods and operational productivity, thus increasing competitive advantage. One of information technology solutions that improve the efficiency of a company is information systems.

Information systems play a crucial role in today's business life. They help improving their goals, targets and strategies. Nowadays, an increasing number of companies invest money into information systems in order to improve business performance. Investments into information systems help a business to transform operational processes and activities so that a higher efficiency could be achieved. Production process, customer service, finance and accounting, information processing and other processes could be improved with the help of information systems.

Information systems can help identifying and resolving the existing problems and weaknesses of a company. They can bring a lot of direct and indirect benefits, thus increasing the financial stability of a company. Subsequent to implementation of enterprise resource planning systems, both tangible and intangible benefits might influence business

performance in one way or another. Identification of such benefits is complex as these factors have been insufficiently researched. Consequently, they should be identified before their impact could be fully evaluated.

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