

# Review on the Dynamic Impact of Information Technology on the Accounting System

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**Abstract:** *The objective of this study is to examine the impact of information technology on the accounting information system (AIS) in enterprises and evaluate the role of information technology in enhancing the accuracy and efficiency of accounting transactions in a transparent and secure manner. The researchers analyze multiple resources and relevant literature on the impact of information technology on the accounting profession to identify the primary effects, enhance the advancement of these technologies to bolster the AIS, and rectify errors in this system. The researchers assert that the adoption of information technology has facilitated the advancement of corporate accounting systems, enhanced business performance, and contributed to the rise of cloud accounting. Nevertheless, a notable drawback of incorporating information technologies in AISs is the absence of standardized technologies across all systems. Businesses often have certain criteria when choosing technology, which might make the results of AIS less transparent. Consequently, it is advised that all companies allocate a portion of their profits towards the development of accounting software systems, the enhancement of human resources, and the training of accountants in essential accounting software. Furthermore, it is crucial for companies to utilize accounting software proficiently and effectively in order to maximize the advantages of implementing information technology in an AIS and mitigate any associated drawbacks.*

**Keywords:** Accounting system, Audit, Decision making, E-system, Information Technology, Security

## I. INTRODUCTION

The account system is crucial for the success of any establishment. Implementing the account system correctly and efficiently improves the establishment's profitability, eliminates unnecessary charges, and reduces organizational difficulties (Kamal, 2015, p. 13). The growth of the account system was closely linked to the continuous development of commercial operations. The emergence and rapid development of information technologies had a significant impact on the company's account system and its effectiveness (Cavallas and Ittner, 2003, p. 247). Despite occasional errors or delays caused by accountants, the account system continues to face various challenges (Rahman et al., 2017, p. 9). Consequently, there was a necessity to enhance the cooperation between information technology and the account system in order to attain success. The ideal timing for implementing the company's account system.

## II. RESEARCH PROBLEM

The focus of this research is on the impact of information technology on the accounting system.

1. Does the use of information technology enhance the efficiency and efficacy of accounting transactions?
2. Is information technology securing enough to reliably journalize accounting transactions?

## III. STUDY OBJECTIVES

The main objectives of this paper are as follows:

1. To present a comprehensive hypothetical analysis of the matter being examined, focusing on subjects related to corporations, including general and accounting disclosures.
2. To examine the impact of information technology on accounting information systems (AIS) in the context of enterprises.

3. To attain relevant research findings including the discussed issue and the conclusions derived from this inquiry in a reasonable manner.

#### **IV. SIGNIFICANCE OF RESEARCH**

The importance of this investigation stems from the elucidation of the impact of information technologies on the accounting system and the role of information technologies in enhancing the efficiency and efficacy of accountants' abilities. Similarly, this investigation may provide scholars with a fresh perspective on the importance of information technology.

#### **V. REVIEW OF LITERATURE**

##### **Information Technology**

The process of managing, manipulating, transmitting, and utilizing data through computers and telecommunications networks is referred to as information technology (Hamlen et al., 2010, p. 40). This can be defined as any sort of multimedia distribution technique that presents data or information in a visual format, as stated by Ghasemi (2011, p. 114). This tool is designed for directors to support the executive workforce in their daily activities and decision-making within the industry. Computers designed for the purpose of performing calculations were developed approximately in the year 1880. (Smith and Weingart, 1999, page 841).

An information system is an interconnected network of branches that gather, analyze, store, transform, and disseminate data. Collaborative planning, decision-making, and information management are discussed in the works of Dandaloo and Rufai (2013, p. 656) and Al-Dalai (2015, p. 442). Computers can enhance the efficiency of data collection, retrieval, storage, transmission, and delivery in information systems (Moscone et al., 1999, p. 285). The AIS is a highly interconnected and essential resource in the field of information and technology. Due to its role in generating safe financial data for the purpose of making informed decisions, businesses consider it crucial (Salehi et al., 2010, p. 25).

#### **VI. CATEGORIES OF ACCOUNTING SYSTEMS THAT HANDLE DIFFERENT TYPES OF INFORMATION**

Typically, firms employ three categories of IT systems:

manual systems, information technology systems, and computer systems. The systems mentioned are Ballade and Ballade (2008, p. 91). (Ballade & Ballade, 2008. p. 91).

##### **• System operated by hand**

This marks the commencement of the accounting system. Computers have substituted specific paper records with electronic processing structures of computer records, wherein this system utilizes physical papers and printed books (Li, 2013, p. 96). A non-automated system requires a significant amount of manual labor and depends on human exertion. Due to human cognitive processes, the manual approach is susceptible to errors.

##### **• Computer-based transaction system**

Businesses utilize several types of information technology in their AISs. Due to progress in information technology, a computerized payment system was developed (Li, 2013: 97). The system maintains a clear segregation between accounting data and other processing data. Currently, there is a growing trend to divide the effort in order to maintain the integrity of the AIS.

The primary distinction between information processing and manual system processing is in the accountant's input of transactional data on the computer screen, which can subsequently undergo automated processing. A machine transaction system offers numerous benefits. It allows for easy delivery of transactions to designated accounts while minimizing the need for logging. Complete transaction records can be written and reviewed at any time. Internal reviews and change checks can be implemented to prevent and monitor errors. Additionally, a variety of reports can be generated. Accounting services can be found in the market. The modules of the corporate accounting application consist of these components. A basic accounting kit may incorporate either a plugin or a stand-alone module. However, it is common for it to consist of multiple modules.

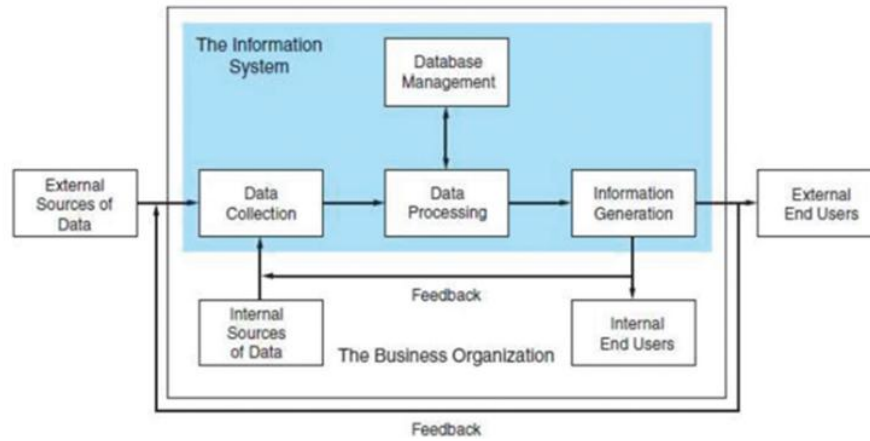


Figure 1. Prototype of a comprehensive accounting information system

**• Systems for managing databases**

This minimizes inefficiencies and mitigates information overload. The accounting process in corporate management is distinct from quantitative database systems such as enterprise resource planning (ERP) solutions. This technology gathers both monetary and non-monetary information and stores it in a database (Al-Dalai, 2015. p. 444). The benefits of this technique encompass a comprehensive understanding of the market, not limited to accounting alone. It aids in the reduction of organizational inefficiencies and eliminates the duplication of data. Additionally, safeguarding a company's assets ensures the reliability of data, minimizes waste, and decreases the likelihood of theft or fraudulent activities. The control principle is well acknowledged.

The third objective is to synchronize the operational and human attributes of the organization. This is a synonym for the concept of coherence. The versatility hypothesis is coined to address the need for adaptation to rising transaction volume and organizational changes.

**VII. THE ACCOUNTING PROCEDURE**



Figure 2. Accounting process

Figure 2 illustrates the standard rate at which the accounting process operates. The four primary stages encompass the assessment of Sales, the documentation of outcomes, and the processing of documents, all of which serve as illustrations of activities. This technique ensures that the processes can be utilized both manually and technologically, while maintaining a sense of balance.

To begin, it is necessary to analyze transactions, understand their financial characteristics, and differentiate between transactions that can be recorded and those that cannot be recorded (Hall, 2018, p. 93). This stage assesses the purchase by considering its impact on the account balance. Source documents such as invoices, manuals, and guidelines are crucial during this stage. The transaction effect is the second phase. Transactions are documented through the process of recording. An accountant uses diary notes to record the effects of both basic and complex transactions (al-Dalai, 2015, p. 443). Every journal maintains a record of business transactions in a sequential manner. The transaction dates, amounts, and affected accounts are all shown. The deal is occasionally described extensively. Here are few records that have been uncovered. The third stage involves aggregating the effects of the transaction, recording the journal entries in the ledger, and preparing a trial balance (Emeka-Nwokeji, 2012, p. 87).

It is necessary to include and categorize all pertinent items when analysing purchases and recording them in a journal. This is achieved by transferring all journal entries to the relevant accounts in the bookkeeping system. Both accounts are being managed. A directory is a printed publication that contains a list of names, addresses, and other contact information for individuals or organizations. An invoice book is a specific form of notebook. The subsequent stage is ascertaining the aggregate sum of each account. Usually, a check balance is planned once the account balances have been established. A test balance is a document that provides a comprehensive list of all accounts, indicating if each account has a debit or credit balance (Galani et al., 2010, p. 419).

The ultimate step is to assess the accounts, which encompasses rectifying records, examining, and concluding the financial statements (Grabski et al., 2011. p. 54). Numerous change entries that are deemed suitable for the given timeframe will be recorded and exhibited. Afterward, the check equilibrium is replenished. The check balance data is subsequently utilized to generate financial statements (Haug et al., 2011. p. 172). The report comprises a financial statement, an income statement, a cash flow report, and remarks. The ultimate step is to conclude the accounting records.

In the present day, the majority of organizations utilize computers and electronic technologies in their accounting systems. Computers have the capability to measure millions of transactions every second, as stated by Jameel (2018, p. 198). The manual completion of the activity requires considerably less time compared to the utilization of automated methods.

Moreover, all four processes are identical. The primary distinction is in the fact that manual procedures involve the accountant making estimations and manually verifying the facts, whereas computerized methods rely only on the computer to evaluate the records. The data undergo processing and are inputted into a computerized system, which autonomously measures the balances. Robots lack the ability to engage in reasoning, which is a responsibility that falls on accountants (Li, 2013, p. 100). The accountant's activity mostly encompasses the initial two steps in the computerized accounting process. The accountant only needs to scrutinize the transactions and provide a report on their results. The machine is required to do essential calculations.

#### **A. Distinctive advantages in the market that provide a company an edge over its competitors.**

Businesses can maintain a competitive edge over their rivals by leveraging IT resources (Abadi et al., 2013, p. 2410). Information technology (IT) can be utilized to generate and differentiate novel and enhanced products from those that are presently available in the market. Implementing IT systems in the company will lead to financial savings. This has the potential to enhance worker efficiency while simultaneously reducing operational expenses. Businesses should integrate IT into their products, so rendering the transition between systems or commodities unfeasible for consumers.

- Economic efficiency

The implementation of IT services resulted in a significant reduction in accounting costs (Thabit et al., 2016: 40). Multiple duties can be consolidated inside a single site by utilizing IT resources. Enhancing economic productivity can be accomplished by transferring expensive operations to an online platform. Organizations can offer a more cost-effective online email service as an alternative to a live customer care call. According to Jameel and Ahmed (2018: 44), implementing recycling practices, exploring remote working options, and fostering economic interconnectedness can all lead to decreased costs.

### **B. Superior Instruments**

One other method for monitoring technological progress in companies is by examining their information processing systems. Having access to workplaces equipped with computers, printers, routers, faxes, or other innovative technology gives a competitive edge over those who lack such resources. However, in the current economy, basic technologies like personal computers may be acquired at affordable prices (Li, 2013: 101).

### **C. Software applications for accounting processes**

From a business perspective, software is a trivial commodity. This is an assemblage of programs or procedures interconnected with systems. Accounting software, auditing software, word processing software, multimedia software, and electronic data interchange are all types of widely used business software.

- Software for creating and editing documents

Here is an illustration of a software program. Additionally, this feature allows for the modification, preservation, and reproduction of the content. consisting of written or printed information. Accountants and other organizations using word processing tools to communicate information. Word processing software is utilized to create documents such as papers, billings, and memoranda.

Computer graphics software refers to a type of software that is used to create and manipulate visual images on a computer. This application utilizes data to create visual representations such as images, graphs, and charts, which aid users in gaining a deeper understanding of the situation at hand (Hamlen et al., 2010: 44). Additionally, it is employed for the purpose of conveying financial data. Electronic data interchange (EDI) refers to the transfer of business information in a standardized format between computerized businesses. An interagency endeavor occurs when two or more entities collaborate. The EDI system lacks a human agent to approve or authorize transactions.

## **VIII. CONCLUSION**

Based on the connected literature and previous studies, the researchers may infer the following conclusions:

The implementation of information technology to streamline accounting processes and reduce the workload of accountants commenced over 140 years ago.

Information technology is a crucial cornerstone that the firm depends on to effectively manage its operations and organize its finances. The advent of information technology has facilitated the development of corporate accounting systems, enhanced business performance, and contributed to the emergence of cloud accounting.

The implementation of information technology has led to improved accounting procedures by enhancing their simplicity and increasing their efficiency and effectiveness.

Possibilities for enterprises to expand their commercial interactions and enhance public confidence in them.

The integration of information technology procedures in the AIS has facilitated the mitigation of inadvertent errors, hence contributing to the progress of the auditing profession.

The proficient utilization of information technology resulted in the efficient dissemination of information, so enabling managerial decision-making and enhancing the company's ability to achieve strategic and commercial objectives.

Information technologies used into AISs may not guarantee flawlessness, but do enable their ongoing development and regular updates.

One major drawback of adopting information technologies in AISs is the lack of standardized technologies across all systems. This is because corporations tend to use technology that align with their own needs, which reduces the openness of AIS outputs.

The study's findings suggest that the researchers recommend promoting the utilization of information technology in accounting. This is determined by adhering to international criteria established by relevant professional organizations.

Businesses ought to allocate a percentage of their earnings towards the creation of accounting software, the advancement of human resources, and the training of accountants for essential accounting software. In order to optimize the advantages of accounting software and prevent challenges in deploying information technology in an AIS, it is imperative for all firms to utilize this software in a proficient and efficient manner.

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