

# Impacts of Advanced Technologies in Accounting Sector

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## Abstract

Technological developments changed methods for carrying out tasks within the scope of accounting activities and transactions related to accounting was started to being carried out through electronic media. Growth and development growing rapidly in information technologies day by day have brought digital revolution in economic, social and cultural fields. Usage of technology in accounting has increased as a result of developments concerning with usage of computer technologies so as to produce administrative-purpose information on the basis of integrate information system of accounting information of enterprises. There is much accounting package software in the market written for unified accounting system. Along with unified accounting, computerized accounting applications have increased rapidly. The objective of this review study was to find the impact of advanced technologies in accounting sector. To achieve the intended objectives of the study, a total of 11 previous published articles related to the application of advanced technologies in accounting sector were searched on different databases by defining the inclusion and exclusion criteria. The exclusion criteria were to include the articles that are related to the advanced technologies and accounting. The exclusion criteria were not to include the articles that have no link between impact advanced technologies and accounting sector. The findings of the study indicated that application of advanced technologies has opened the new horizons in the accounting sector.

**Key Words:** Impact, Advanced Technologies, Accounting Sector

## Introduction

The transformation of advanced technologies is the process of incorporating technological developments into business patterns, processes, competencies and models in a way that will accelerate them and provide efficiency. Although transformation of advanced technologies cannot be defined in a way that fits all processes and businesses, it can be expressed as the integration of advanced technologies into all business processes in its most general form, and as a result, transformation and changes that cause a comprehensive change.

The traditional accounting process based on data stored in the traditional way of loading paper and item databases is a thing of the past. In the current period, this traditional method has been

replaced by; electronic funds transfer, internet, internal internet, external internet, electronic data exchange. In other words, thanks to the aforementioned technology, digital applications where the platform connected to the internet are implemented in an integrated manner has started to be used in the accounting sectors.

With the application of advanced technologies in accounting like electronic use of accounting information owned in traditional format, accounting information can then be viewed and transmitted electronically. In this new accounting approach, the functioning of accounting has changed drastically and the classification, recording and reporting activities of accounting, which were previously carried out physically, have been replaced by the phenomenon of artificial intelligence. By using different approaches such as machine learning and deep learning, it has become possible to process and analyze very large data in a short time with artificial intelligence that carries out business and operations. As a result, by using advanced technologies, costs decrease, productivity increases, new products and services and new business areas emerge.

### **Objectives of the study**

The objective of this review study was to determine the impacts of advanced technologies in accounting sector.

### **Research Question**

In this review study, it was tried to find the answer of the research question that what are the impacts of advanced technologies in accounting sector?

### **Review of Literature**

#### **Advanced Technologies and accounting**

Technology-based science has its applications in the field of information technology because of the rapid development of innovative technology; the applications of information technology have also gained popularity in accounting and finance [9]. The research studied that information technology provides both challenges and opportunities for strengthening the corporate structure from the perspectives of the accounting sector. Multidisciplinary corporate governance has been becoming increasingly important in the sector of accounting for efficient and effective governance. Moreover, [10] claimed that information technology has provided various applications for the flexibility of the accounting sector. The ability to control and manage a large amount of information and data in the rapid and complex journey of the information technology era has also encouraged the accounting and finance sector to become more adaptable. Nowadays, many organizations are accounting systems into computerized information systems to enhance working performance.

Apart from this, [10] presented the accounting sector research and determined its working mechanism due to the influence of information technology. The aim or focus of this research was on artificial intelligence, cloud computing, Blockchain, and big data within the accounting management, accounting, and auditing sector based on the emerging information technology trends. It was investigated that information technology has various advantages and positively

influences the finance and accounting sector. Furthermore, [11] highlighted that many workers in various organizations stored information and data manually in the past. Maintaining and gathering a bulk amount of data seems critical. With the emergence of information technology, information technology has replaced traditional work. It provides various advantages to the accounting and finance sector, and new technological advancements may minimize its dependency on the work of accountants [11].

Many organizations still demand accountants even though various technological programs and software which can replace accountants. That's why accounting professionals must build and improve their new skills according to the demand of the modern era to keep up with the advancement of technology. Furthermore, [12] claimed that the technology revolution has altered every profession, including finance and the accounting sector. And the influence of technological evolution can improve automated accounting and reduce cost, but still, there is a shortage of skills in the market. Apart from this, [12] highlighted that the technology and accounting transformation can also promote the industrial revolution and provide extra work to redefine governance in the revolutionary environment that demands multiple frameworks, agile, and flexible governance.

In addition, [13] suggested that the influence of information technology can be greatly determined by implementing artificial intelligence, blockchain, cloud, and big data. Cloud tools and Big Data supporting ledger transactions have been made accessible using blockchain. The development of technologies has significantly increased the popularity of non-financial and financial data, reflecting accounting perspectives. Moreover, [13] also presented the research on the applications of information technology to examine the impact of IT on the finance and accounting sector. For this purpose, a questionnaire survey method has been utilized to collect sample data of accounting information. Then collected data were examined using E-VIEWS software and concluded that there are vast applications of information technology in the finance and accounting sector, and it was investigated that information technology positively influences the finance and accounting sector.

Olaofe-Obasesin also discovered a relationship quality of accounting information and its relationship with information technology [14]. This relationship was mainly based on the application of modern technology at all input and output levels as well as processes that assist in justifying the organizational management as the internal utilization of technology, which also describe external or Quality use by stakeholders such as lenders, investors as wells suppliers and many more. Additionally, in the process of accounting data, the effectiveness of data supports the development of the business's competitive edge. Furthermore, [15] highlighted that information technology seems intrinsically linked to the value of accounting information since the data in the database seems accurate and trustworthy, independent of the counterparty's level of assurance. Only when the transaction has been confirmed by all parties does it take place. With the emergence of information technology, accounting can be converted into a transparent, secure, and easy-to-utilize format. In addition, [15] highlighted that the emergence of information technology in the accounting and finance sector, it has provided various advantages, including digital shopping is now become quicker and more user-friendly, people can update their accounts by utilizing mobile apps, etc.

## **Research Methodology**

### **Article Selection Process**

The Prisma diagram was followed for the selection of the articles. Its procedure is discussed in the following lines:

#### **i. Identification**

##### **a. Databases and Time Limit for Literature Search**

The researchers searched the articles on the action learning theory and leadership development from January 2010 to November 2023 from the major electronic databases including ERIC, Web of Science, Google Scholar, Scopus, EBSCO, PsycINFO, PsycCRITIQUES, and PsycARTICLES. The key terms used for literature search for articles were: Advanced Technologies and accounting sector.

##### **b. Inclusion Criteria for Literature**

The articles were included based on the following inclusion criteria:

- Only those articles were included that reported the action learning theory and leadership development. The studies that have no link between advanced technologies and accounting sector were excluded.
- The studies that were published in a peer reviewed journal, from the year 2010 to 2023 and written in English were included in the study. The studies that did not meet this criterion were excluded. So, initially 76 studies were identified.

#### **i. Screening**

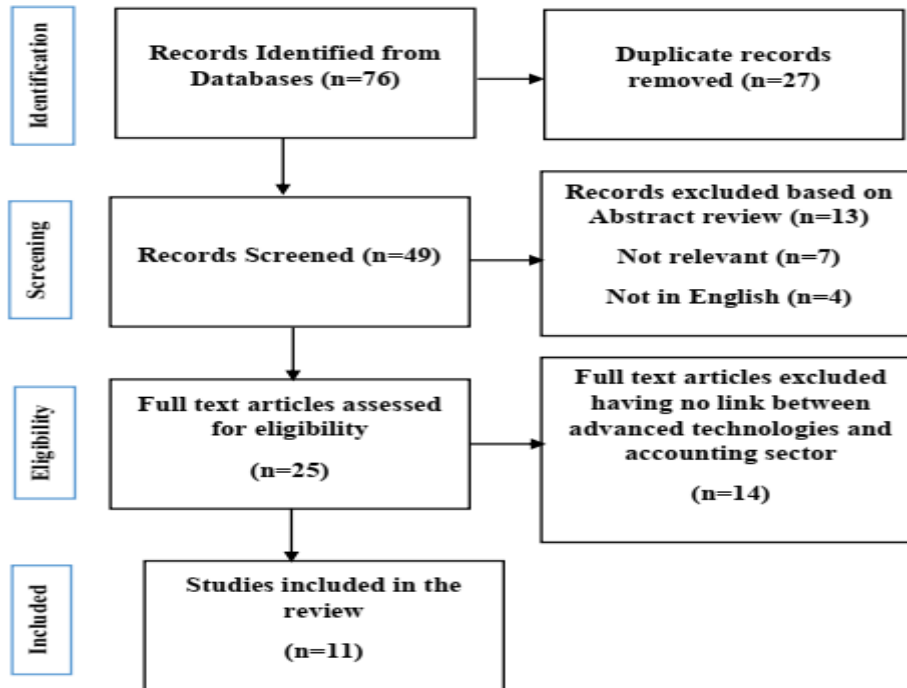
After removing the duplicate records of 27 studies, the remaining studies were 49 based on inclusion and exclusion criteria. Records excluded on the basis of the abstract review were n=13, not relevant n=7, and not in English n=4.

#### **ii. Eligibility**

The total full-text articles assessed for eligibility obtained were n=25. The full-text articles that have no link between advanced technologies and accounting sector were also excluded n=14.

#### **iii. Included**

So, the final studies included in the review were obtained as n=11. The article selection process followed by the Prisma diagram is shown in figure 1



**Figure 1: Prisma Diagram for the Article Selection Process**

## Results and Discussion

The objective of this review study was to determine the impacts of advanced technologies in accounting sector and the research question regarding this objective was what are the impacts of advanced technologies on accounting sector. To achieve the intended objective of the review study and to find the answer of the research question, previous published literature was reviewed and the results of the literature review are presented in the table 1.

**Table 1: Impacts of Advanced Technologies on Accounting Sector**

Sr. No	Reference	Sector	Results
1	Al-Okaily et al. (2023)	Banking	The results have shown that the adoption of advanced technologies in accounting are the major drivers for improving business performance.
2	Izzo et al. (2022)	multinational computer technology corporation	The paper shows how CA is facilitated by DT.
3	Ahmad et al. (2024)	Central Bank	The article proposes that the establishment of a comprehensive framework of guidelines for enterprises' information technology infrastructure would be advantageous for regulatory bodies, such as the Jordan Central Bank. T
4	Lohapan (2021)	Audit Sector	The results of this study show that digital accounting implementation has an important effect on its consequence, namely audit competency, audit report, and audit performance.
5	Çetin and Bozdoğan (2023)	Accountant Sector	The application of advanced technologies significantly improved the accountant work.
6	Asuquo et al. (2020)	Accounting line of work	Results of the investigation had shown that information technology has a substantial influence on the accounting line of work.

7	Chinoracký and Čorejova (2019)	Transport	The advanced technologies improved the audit section of the transport sector.
8	Khalid and Kot (2021)	Banking	The results of the study indicated that Total Assets, Operating Assets and Earnings after Tax have a positive and significant effect on Return on Equity.
9	Kuzmenko et al. (2023)	Fuel and Energy Sector	Cloud Computing, Blockchain Technology, Big Data, Artificial intelligence (AI), AI-based automation, Machine learning and Internet of things have significant impacts on the accountant section of the sector.
10	Gunawan and Serlyna (2018)	Bank Sector	The technologies applied significantly improved the financial performance of the bank.
11	Elessa (2023)	Stock Exchange	The stock exchange performance improved by using the advanced technologies.

Table 1 shows the results of the studies reviewed to determine the impacts of the advanced technologies on the accounting sector. Table shows that application of the advanced technologies significantly improved the performance of the accounting sector.

## Conclusion

The objective of this review study was to find the impacts of the advanced technologies on the accounting sector. The previous published literature reviewed showed that the advanced technologies have changed the way of the accounting sector. The application of advanced technologies in accounting sector has made the business world very advanced and useful.

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