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The role of digital transformation in improving the quality of the accounting auditing process

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Abstract--This study aims to shed light on digital transformation in the field of accounting auditing and its contribution to saving time, effort, and cost for the auditor in processing accounting and financial data and information. The research highlights how the adoption of digital technologies enables auditors to process large volumes of information swiftly and efficiently, reducing the likelihood of human error. The study also seeks to clarify the role of digital transformation in improving the overall quality and reliability of the accounting audit process, thereby increasing clients' confidence in audit services and elevating professional standards in the industry. Through analysis and discussion, the study found that digital transformation in accounting auditing helps auditors provide more accurate, error-free, and timely financial data for decision-making, while also decreasing the time, effort, and operational costs associated with traditional methods of data processing. Furthermore, the study concluded that digital transformation enhances the quality and transparency of accounting audits, as it strengthens the auditor's independence, objectivity, and professionalism in handling financial information, ultimately allowing for impartial opinions and presentation of financial data in a highly reliable manner.

Keywords---Digital transformation, accounting auditing, auditor, financial statements, evidence, accounting software.

Introduction

In recent years, the world has witnessed an unprecedented technological revolution that has profoundly impacted all sectors of society. This transformation, widely regarded as the Fourth Industrial Revolution, results from the convergence of prior industrial revolutions—mechanical, biological, and digital—and marks the advent of an innovation-driven era. Technology has become the central pillar of modern human activity, reshaping the ways in which we work, live, and learn. Advances such as artificial intelligence, nanotechnology, biotechnology, 3D printing, fog computing, big data analytics, and blockchain have revolutionized economies and labor markets across many countries, generating significant changes in various fields and unleashing new creative and productive capacities.

The fields of accounting and auditing have not been immune to this shift. Economic institutions have increasingly embraced digital transformation in their operations, driven by rapid technological advancements and the growing complexity and scale of financial transactions. Traditional accounting and auditing methodologies often demanded considerable time and effort and were susceptible to human error, particularly in managing large and intricate sets of financial data. As a result, the digital transformation of accounting and auditing practices has emerged as an essential evolution for improving efficiency, reducing costs, and enhancing the accuracy and reliability of financial data processing.

These changes underscore the necessity of adopting modern digital systems and intelligent technological solutions in accounting and auditing, with the aim of improving the quality of financial reports and strengthening stakeholder confidence in economic decision-making. The integration of digital tools enables institutions to respond more effectively to the increasing demands for transparent and timely information in a highly interconnected global environment.

However, the transition toward digital auditing entails considerable challenges, particularly in adapting to new technological paradigms, redesigning established procedures, and ensuring data integrity and security. It is within this context that the present study arises, we present the following problem :

What is the role of digital transformation in improving the quality of the accounting audit process?

1. Digital Transformation

Digital transformation is among the most prevalent topics in our contemporary era due to the significant advancements witnessed in the internet and information and communication technology. It is considered a fundamental basis for achieving efficiency and effectiveness in organizations. Therefore, in this section, we will address the concept of digital transformation, its characteristics, importance, and requirements as follows:

1.1 The Concept of Digital Transformation

There are several definitions of digital transformation, and among them are the following:

Digital transformation is defined as “a new business model based on the use of digital technologies to innovate new products and services, the way they are delivered, and a focus on the client or user”. (Ghrissi et al, 2021, p. 101)

It is also defined as “the process of integrating digital technologies into the business world, bringing about a radical and comprehensive change in how value is delivered to the end user. It is also considered a cultural change for organizations that must adapt to it”. (Slaimi & Bouchi , 2019, p. 947)

It is further defined as “bringing changes in how individuals perceive, think, and act at work, and striving to improve the work environment by focusing on the use of information and communication technology”. (Amal Salah , 2016, p. 33)

Based on the above, it can be said that digital transformation is the harnessing of information and communication technology in the organizational aspects of institutions to save time, effort, and cost, and to improve the quality of services provided.

1.2 Characteristics of the Digital Transformation Process

Digital transformation is distinguished by several characteristics, including the following: (Al-Qur'awi Mohamed, 2022, p. 41)

- Exclusivity: It provides institutions and individuals with all the fundamentals of uniqueness necessary for competitive ability.
- High technology: It enables the use of modern technology that helps perform functions in the shortest possible time.
- Borderless: It allows individuals and institutions to benefit from services from anywhere in the world where they are present.
- Adaptability: It enables institutions and individuals to quickly adapt to the situations they go through, thus accomplishing tasks with quality and speed.
- Network organizational structure: Digital transformation permits precise organization of work, which makes it easier for individuals and institutions to carry it out smoothly.
- Transparency and integrity: Digital transformation allows the specification of roles and responsibilities, and daily decision-making without relying on the traditional hierarchical structure, thus ensuring transparency and integrity in business processes.
- Time and effort savings: Digital transformation facilitates and organizes data processing with high accuracy, thus saving time and effort for individuals.

1.3 The Importance of Digital Transformation

The importance of digital transformation is as follows: (Al-Ghabiri & Abdul Rahman , 2020, p. 236)

- Updating business models to keep pace with technological developments.
- Improving and organizing operational efficiency, enhancing quality, and simplifying procedures to obtain services provided to the public, as well as reducing error rates.
- Digital transformation helps institutions to enhance their industrial processes and utilize their resources more efficiently and optimally.

- Digital transformation enables potential clients to learn about the business activities and conduct economic transactions at any time and place.
- Facilitating the process of monitoring work progress by responsible officials.
- Enhancing investment revenues.
- Improving satisfaction rates for both employees and customers.
- Creating opportunities to provide innovative and creative services away from traditional service delivery methods.
- The speed of performing digital procedures surpasses traditional methods, making these procedures easy and fast for beneficiaries.

1.4 Requirements for Achieving Digital Transformation

To achieve digital transformation, the following requirements must be met: (Abdullah Abdulrahman , 2016, p. 201)

- Continuous leadership and managerial support for transformation efforts, through leaders focusing on management practices related to technology, providing human, financial, and material resources, and establishing necessary legislations.
- Striving for flexible organizational structures and focusing on effective work teams.
- Ongoing review during the digital transformation process.
- Precisely defining the vision—clarifying exactly what we want to become in the future.
- Developing existing organizational structures by moving away from complex frameworks.
- Developing the skills and abilities of all human resources through training and self-development.
- Providing modern devices and various software solutions to renew the core information technology infrastructure.
- The necessity of analyzing the market and its needs, assessing strengths and weaknesses, and surveying opportunities and challenges in the external environment.
- The success of the digital transformation process requires skills, abilities, and personal characteristics in leadership and all community members that reflect their belief in and commitment to the digital transformation process and its stages.
- Digital transformation significantly saves cost, effort, and time.

2. Accounting Auditing

Economic institutions strive to achieve their goals and maximize profits at the lowest possible costs. This necessitates avoiding accounting and financial errors that could lead to disruptions in the organization's activities. It is from this need that accounting auditing emerged. In this section, we will address the concept of accounting auditing, its types, objectives, beneficiaries, and the ethics of its practice, as follows:

2.1 The Concept of Accounting Auditing

There are several definitions of accounting auditing provided by specialists in the field of accounting and auditing, among which are the following:

Accounting auditing is defined as “an activity that is applied independently and in accordance with interrelated procedural standards and inspection with the aim of assessment, appropriateness, level of confidence, and the functioning of all parts of the activity within the institution, in accordance with the standards set for it”. (Zwaq, 2017, p. 141)

It is also defined as “the process of evaluating the effectiveness and activities of the organization through administrative control, to assist management in ensuring that all operations in the organization are carried out as planned and in accordance with the organization’s objectives”. (Al-Rababah Aysar , 2017, p. 23)

Furthermore, accounting auditing is defined as “the examination of internal control systems, data, documents, accounts, and books of the entity in a systematic and critical manner, with the objective of providing an impartial professional opinion about the extent to which the financial statements reflect the financial position of the entity at the end of a specific period, and how accurately they depict its results of operations (profit or loss) for that period”. (Bouزيد , 2013, p. 24)

Based on the above, it can be said that accounting auditing is the process of gathering and evaluating evidence to verify the validity of transactions, information, and economic events, with the aim of protecting the organization’s assets, preventing fraud and manipulation, and delivering financial information to concerned parties truthfully and transparently.

2.2 Types of Accounting Auditing

The types of accounting auditing can be summarized according to various classifications as follows: (Bosna , 2012, pp. 16-17)

2.2.1 According to the Auditor Performing the Process

- Internal Auditing: This type is performed internally to serve the objectives of the institution, and is conducted by an employee within the organization through examining books and records and verifying adherence to accounting standards.
- External Auditing: This type is conducted by an independent external entity with the aim of providing an impartial professional opinion regarding the truthfulness and fairness of the financial statements of the institution during a specific period.

2.2.2 According to Legal Requirement

- Statutory (Mandatory) Auditing: This is the auditing required of the institution according to prevailing laws and regulations, and is often referred to as legal auditing.
- Non-Statutory (Contractual) Auditing: This is optional auditing that takes place without any legal or regulatory obligation, and its adoption depends on the owners of the institution or interested parties.

2.2.3 According to the Scope of Auditing

- Full Auditing: This type of auditing grants the auditor an unlimited scope of work, involving comprehensive auditing of accounting data and information.

- **Partial Auditing:** This involves placing limitations on the scope or field of inspection, whereby the auditor's work is restricted to certain accounts and not others.

2.2.4 According to the Extent of Examination or Size of Testing

- **Comprehensive (Detailed) Auditing:** This involves the auditor examining all journal entries, books, records, accounts, and documents. This type of audit is suitable only for small-sized institutions.
- **Test Auditing (Sampling Audit):** In this type, the auditor resorts to using audit samples to conduct tests of compliance with internal control policies and procedures, as well as to perform detailed verification tests of balances and transactions. This is done by conducting audit tests on only a sample from the data set, and then making judgments that apply to the entire data population.

2.3 Objectives of Accounting Auditing

The objectives of accounting auditing are as follows:

2.3.1 The Main Objective of Accounting Auditing

The primary objective of the accounting audit process is to express an impartial technical opinion by the auditor as to whether the data and financial statements are fairly presented in all material respects according to the applicable financial accounting framework. (Al-Shahnah, 2015, p. 30)

2.3.2 Secondary Objectives

The secondary objectives include: (El-Tahami Tawaher & El-Siddiqi, 2006, pp. 17-18)

- **Evaluation and Allocation:** Auditing aims in this respect to assess accounting events according to the practiced accounting methods, such as depreciation methods for fixed assets or inventory valuation, etc.
- **Presentation and Disclosure:** Interested parties seek to obtain credible and representative information about the actual status of the institution by means of disclosures from the accounting information system—i.e., information prepared according to professional practice standards.
- Reducing errors and fraud in accounting information.
- Assisting in preparing plans and monitoring their execution.

2.4 Beneficiaries of the Accounting Auditing Process

The beneficiaries of the accounting audit process are as follows: (Keskes , 2021, p. 09)

- *Institution Management:* Management is primarily responsible for preparing financial statements and is, therefore, one of the main beneficiaries of the accounting auditing process through the auditor's impartial and technical opinion, which enhances the credibility of the financial statements.
- *Owners and Shareholders:* Owners and shareholders of companies and institutions are the primary beneficiaries of the financial statements and the auditor's report, as these serve as their main means for decision-making, especially as the auditor provides them with the ability to rely on the information contained in the financial statements and its credibility.

- *Suppliers and Clients:* Suppliers and clients are interested in the auditor's report and opinion on the integrity of the financial statements. Suppliers seek to know the institution's financial position and its ability to meet its obligations. Clients are interested in the institution's continuity, particularly if a long-term relationship exists.
- *Financial Institutions and Banks:* Financial institutions and banks are keen on the financial information provided by institutions through financial statements, as this information assists them in loan-granting decisions. These entities always rely on the auditor's report to ensure the accuracy and credibility of the information in the financial statements.
- *Employees:* Employees and labor unions rely on the auditor's report concerning the credibility of financial statements, as these statements contain information and data related to employee returns, wages, and material and social incentives.
- *Governmental Agencies:* State agencies are interested in the data issued by institutions for the purpose of monitoring the state's economic activity, shaping economic policies, or amending tax regulations. This reliance strengthens the role of the auditor, as the state depends on highly credible and reliable information.

2.5 Ethics of the Accounting Auditing Profession

To achieve the objectives of the accounting auditing profession, its members must adhere to a set of ethics, which are as follows: (Kadri , 2016, p. 17)

2.5.1 Integrity

All auditors should maintain honesty and uprightness in all their business and professional relationships. To achieve integrity, the auditor must refrain from participating in any reports or statements that contain:

- Materially false or misleading information.
- Information presented negligently or carelessly.
- Information from which essential data is omitted if such omission results in deception or negligence.

2.5.2 Objectivity

This means that the auditor does not compromise professional judgment due to bias, conflicts of interest, or undue influence from others. Therefore, an auditor providing audit services must be independent from the client, as auditor independence safeguards the ability to form opinions unaffected by influences that could weaken that opinion.

2.5.3 Professional Competence and Due Care

The auditor must perform services with competence, care, and accuracy, and must commit to continuous acquisition of professional knowledge and skills, maintaining the required level to ensure that the client receives high-quality professional services in line with current developments, regulations, and professional practices. The auditor must act with due care according to professional and technical standards when providing professional services.

2.5.4 Confidentiality

The auditor must preserve the confidentiality of information obtained during professional work, and must not use or disclose any such information without explicit and specific authorization or where a legal, professional right or obligation permits disclosure. Confidential information obtained through professional or

business relationships must not be used to gain personal advantages for the auditor or others.

2.5.5 Professional Behavior

This means the auditor must comply with relevant laws and regulations and avoid any conduct known to harm the reputation of the profession. This includes acts that a reasonable and informed third party, evaluating all specific facts and circumstances available to the auditor at the time, would consider detrimental to the good reputation of the profession.

3. The Role of Digital Transformation in Improving the Quality of the Accounting Audit Process

Accounting auditing is considered one of the essential and fundamental functions for the continuity of institutions and the achievement of their objectives according to established plans. Its importance lies in examining and evaluating accounting and financial data and presenting it to stakeholders in the institution in an accurate and proper manner, free from any errors or fraud. The use of digital transformation contributes to achieving high quality in accounting auditing by utilizing modern information and communication technology, thereby saving the auditor's effort, time, and cost in carrying out tasks.

3.1 Factors Affecting the Quality of Accounting Auditing

The factors affecting the quality of accounting auditing can be classified as follows:

3.1.1 Organizational Factors

These are manifested in the procedures for organizing the auditing profession and planning its operations, as well as determining the scope of work and the time required to accomplish necessary tasks, in addition to the skill of the auditor in specifying the start and end of the audit process. (Issa, 2008, p. 14)

3.1.2 Behavioral Factors

The behavioral factors are reflected in the audit team's commitment to integrity, independence, participation, cooperation, as well as neutrality and autonomy. (Abu Hein, 2016, p. 62)

3.1.3 Personal Factors

These reflect academic qualifications and professional experience, in addition to continuous training received by the auditor, which is essential for achieving audit quality. (Al-Tuwaijri & et al, 2008, p. 229)

3.1.4 Factors Related to the Scientific Basis of the Auditing Profession

These are represented by adherence to all professional principles and standards in conducting audits and preparing reports, in addition to the effective utilization of resources. (Ibrahim , 2016, p. 30)

3.2 Digital Transformation and Its Role in Improving the Quality of the Accounting Audit Process

The use of digital transformation in the audit process achieves the dimensions of accounting audit quality as follows:

3.2.1 Achieving the Cost Advantage

This relates to reducing the cost of audit services and increasing the profitability of audit firms by applying audit software to audit financial data. This has contributed to the rapid completion of services and the provision of multiple services to a large number of institutions. It also creates savings in the time

required for planning and determining the scope of testing through expert systems and artificial intelligence. Achieving the desired goals of quality auditing requires skills, specifications, and competencies within the audit team.

3.2.2 Achieving Quality

Digital transformation in the audit profession, especially in executing financial operations, contributes to the efficient and effective completion of audit tasks through software that assists in performing audit work, saving the required time and effort.

3.2.3 Increasing Market Share

Digital transformation contributes to and impacts the achievement of audit quality by providing speed and accuracy in presenting financial data, which increases the ability of organizations to be competitive. The presence of information technology links business organizations to audit firms, enabling assistance in auditing tasks.

3.2.4 Achieving Distinction

Information technology provides a competitive edge to business organizations, enabling them to deliver their services and products efficiently. Business organizations seek to leverage and exploit these tools for their benefit, and audit firms are part of these organizations, utilizing digital transformation technologies to achieve their tasks with high quality and ensure superior service delivery to audited companies.

3.2.5 Achieving Innovation

Innovation in the use of electronic auditing helps the auditor design necessary programs for performing audit tasks. It also enables the auditor to develop existing systems to be compatible with current accounting systems by employing and developing artificial intelligence programs and expert systems.

3.2.6 Increasing Transparency and Credibility in Financial Statements

Digital transformation allows for the highly accurate processing of accounting and financial data, making the margin of error very small, which in turn makes financial statements credible and transparent.

3.2.7 Increasing Confidentiality of Client Data

Digital transformation makes it difficult to access client data without the auditor's permission; client data become protected from unauthorized access, which helps protect the auditor from the risk of losing confidential financial information.

Conclusion

Digital transformation has become an urgent necessity in the field of accounting auditing, as it allows for the presentation of financial statements to stakeholders in an accurate and error-free manner. It also provides auditors with flexibility in preparing an audit plan that enables reaching the desired results in the shortest possible time, with less effort and higher quality, thanks to the use of auditing programs based on artificial intelligence. The most important findings of this study can be summarized as follows:

- Digital transformation enables tasks to be completed at an exceptional speed, lower cost, and with high accuracy.
- Digital transformation reduces errors as a result of using artificial intelligence in data processing.
- The use of digital transformation in auditing saves auditors time, effort, and cost in processing accounting and financial data.

- Digital transformation contributes to the rapid completion, unification, and simplification of procedures for recording accounting transactions, and reduces the credibility gap in financial statements.
- Digital transformation in accounting auditing helps ensure the quality of the auditor's work, thus increasing client satisfaction with the services provided.
- Digital transformation enhances auditors' professional independence and provides the appropriate environment for performing audit tasks with precision and objectivity, as well as offering a strategy to create higher competitive value among audit firms.

Recommendations

Based on the results obtained, we can make the following recommendations:

- The necessity to work on developing accounting software and linking it to artificial intelligence algorithms.
- Auditors and accountants must develop their performance and skills to keep pace with the digital transformation environment.
- The accounting and auditing professions must keep abreast of digital developments, which have become an urgent necessity and a global trend.
- International auditing standards should be developed to make them compatible with digital transformation.
- Academic curricula in faculties of economics and accounting must be developed to align with digital transformation in the fields of accounting and auditing.
- It is essential to hold conferences, forums, and meetings to support the idea of digital transformation in accounting and auditing.

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