AN INNOVATIONS IN DIGITAL TOOLS FOR ACCOUNTING AND FINANCE: OPPORTUNITIES AND CHALLANGES

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Abstract: This study examined innovations in digital tools for accounting and finance: opportunities and challenges. The objectives of this study are to examine is to explore how Digital Accounting Systems have forever changed many aspects of business, commercial banks, to identify the challenges as well as problems associated with the use of these Accounting software packages. The data used for this study is mixed method research model combined with quantitative and qualitative approach to analyze the survey data and financial techniques. The findings highlight the important factors is making the accounting system Digital to enhance the organizational performance as soon as possible. Thus, the study concludes that as the world and demand of the market is changing rapidly, companies will remain in lower categories without adoption of digital accounting and finance, banking sectors are obligated to make their system updated according to trend and need of time and market.

Key words: Financial Technology, Artificial intelligence, Accounting Software, Big data analytics.

Introduction

Information systems have increasingly transitioned from manual to Digital or technology-based operations in today's digital age and technology-based environment . (Itang, 2020). As a result of users' lack of knowledge with the system and poor facilities and infrastructure, organizational performance has become increasingly difficult for many organizations in general (Sabah et al., 2021), and notably in the public sector. Furthermore, due to rapid technological change, organizations prefer to track monetary transactions using Digital systems, and advancements in information technology have eventually led to the introduction of Digital Accounting Systems (DAS) to help produce relevant, trusted, and representative financial reports for both management and external users for error-free decision-making (Oloaye & Dada, 2021). Because information is regarded the bloodline of organizational activities, Information System (IS) quality plays a vital function in assisting businesses to deliver the demands of correct information at the appropriate moment (Ali & Ju, 2021). As a result, there are numerous criteria to examine when determining efficient Digital accounting IS quality; however, this study is confined to Digital accounting system quality, information quality, and service quality, which might lead to DAS to enhance organizational performance.

As a result, in today's dynamic environment, organizations are constantly improving their images with their subscribers and increasing their satisfaction with its services by improving the quality of information systems and enhancing the efficiency of its employees, which financially will only be based on integrated Digital accounting systems (Oloaye & Dada, 2021). These are the foundations of administrative growth (Kimani, 2020). Digital accounting systems have proliferated around the world in the business environment, and Digital accounting has become the engine of growth in commercial organizations. This has a variety of advantages,

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including faster transaction processing, shorter timeframes, faster analysis, accuracy, and reporting. MS word, MS excel and Quick book are the main Digital accounting systems used by local government bodies in Nigeria. Accounting is a vital aspect of every business, whether it has large or small owners, profit or non-profit organizations. Many LGAs were happy with their manual accounting. Others may be thinking about implementing a Digital system since accounting software is the least expensive option. Local Government Areas (LGAs) are non-profit civil society organizations formed to address neglected elements of national life and development. Adoption of information communication technology on Digital accounting systems in Nigeria encountered several challenges.

Conceptual Framework

Digital Accounting System

It is impossible to imagine a Digital accounting system without first defining the terms information system and accounting information system. Information systems are a collection of interconnected components that gather, process, store, and distribute information to assist organizational decision making and oversight (Widiastuti et al., 2020). Accounting information system, on the other hand, is a system designed to gather, record, store, and process financial data as well as create information for decision-makers (Itang, 2020). An accounting information system is defined by Abdulle et al. (2021) as "a set of interrelated activities, documents, and technologies designed to collect data, process it, and report information to a diverse group of internal and external decision-makers in organizations." Ahmad et al. (2022) includes technology instruments as a component of the accounting information system, indicating the shift from manual to Digital systems. As a result, a Digital accounting system entails the computerization of accounting information systems created to support decision making (Abdulle et al., 2021). According to them, computerization of the system has various advantages, including increased speed in performing regular transactions, timeliness, rapid analysis, accuracy, and reporting.

Similarly, Itang (2020) characterized Digital accounting systems as the use of computers and other associated technologies in the gathering, recording, storing, and processing of financial data, as well as the interpretation and presentation of financial information to stakeholders for economic decision making. In another perspective, Digital accounting systems are a system that centers around the use of connected technologies and computers, structures, and techniques in the accounting process and function to assist overcome the drawbacks of manual accounting systems (Oloaye & Dada, 2021). They also believed that technological advancements throughout the world had compelled institutions to adopt the usage of Digital accounting systems in order to effectively handle these advances.

Organizational Performance

Organizational performance is defined as an organization's capacity to fulfill its goals and objectives in an efficient and effective manner (Shahzad et al. 2021). It is a wide notion that includes financial success, operational efficiency, customer happiness, staff productivity, innovation, and sustainability. Several studies have been conducted to investigate the elements that impact organizational performance as well as the tactics

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that organizations may use to enhance their performance. One research, "Factors Influencing Organizational Performance: A Review of Literature" by Shahzad et al. (2020), presents an exhaustive overview of the elements that influence organizational performance. The authors highlight numerous major aspects that influence an organization's effectiveness, such as leadership, organizational culture, human resource management practices, technology adoption, and external environmental factors. The research underlines the need of aligning these characteristics with the organization's goals and objectives in order to improve performance. Another research, "Effects of Innovation Types on Firm Performance" by Gunday et al. (2021), focuses on the link between innovation and organizational performance. According to the authors, several forms of innovation, such as product innovation, process innovation, and organizational innovation, may all improve an organization's performance. They say that in order to remain competitive and increase overall performance, firms should engage in innovation initiatives.

The Concept of Artificial Intelligence

Finance leaders face a challenge related to AI, one being the definition of the term. EY (Ernst & Young) provide help to CFO's, defining AI as an umbrella term, containing automation technologies from the simplest robotic process automation to specialized tools, able to mimic and out-perform in some specific cases human intelligence. On the same study conducted by EY it is described the evolution of technology until AI solutions appeared. Robotic process automation solutions are represented by rules-based automation, structured data processing and unattended automation. Cognitive automation solutions are the intermediary step in the evolution from robot process automation and AI and are represented by machine learning, unstructured data processing and human-in-the-loop. Artificial intelligence solutions are represented by deep learning and decision making, machine reading and vision and natural language processing and generation for example chatbots (Clarence et. al., 2021). One of Artificial Intelligence subfield is represented by machine learning. This represents the ability of computers to program themselves, taking their own decisions and predictions, using the data they find. An everyday accounting activity is represented by reconciliation procedures, which needs for the moment, the intervention of a human in order to be performed. Using machine learning this activity can be done automatically due to the ability of a machine to perform small logical connections. In this way the time consumed on this task can be used by the accountant to focus more on its consultancy role, using machine learning to add value to his/her services (Duffy, 2022).

Theoretical Framework

Classical Theory of Artificial Intelligence (CTAI).

According to Muller (2012), the theory is centred on whether AI is possible at all. It generates questions like – "Can a machine think?"; "Can a machine perform an x"? It is a theory which states that it is difficult for AI to totally replace human intelligence. Zohuri and Rahmani (2020), however, argued that the developmental speed of innovative AI machines known as Super Artificial Intelligence (SAI) are in a serious race with the inventors known as Human. Thus, while this theory stands on the premix that humans will still provide the necessary transactions for AI to operate, it is still a matter of argument that several operations of humans have not been totally taken over by AI in the recent years. Despite the advancement in AI, however, this theory is still relevant

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as to the limitations of what machines can perform, asserting that AI is fundamentally limited and should be replaced with other methods (Muller, 2012). While this study focuses on the link between AI and accountants' approach to operations, this theory creates more awareness as to the continued relevance of accountants on accounting activities but with dimensional changes in approach.

Agency Theory

The agency theory has its beginning in economic theory. This was made by Alchian & Demsetz (2022) and further developed by Jensen and Meckling (2023). In the agency theory, the principal (owners and shareholders) makes the decision-making power to the agent (directors, managers and management) who may pursue interests that may not necessarily be in favor of the principal but may in fact hurt the principal through information asymmetry (Ogoun, 2020). The agency theory deals with entrusting products to the agent who in turn is required to produce a statement in qualitative and quantitative way and are expected to be in alignment with the interest of the owners of a business and managers of a business and managers in order for the set objectives of the organization to be achieved. Basic agency paradigm was made in the economics literature during 1960s and 1970s in order to determine the optimal value of the risk- sharing among different individuals (Jensen & Meckling, 2022).

Empirical Review

Literature abounds on matters of artificial intelligence. The studies reviewed, examined the impacts of AI on different areas of life. Several of these studies, however, were based on contextual analysis. For instance, Kumari et al. (2013) examined intelligent computing relating to cloud computing. The study contends the real understanding of natural language and the fulfillment of cloud computing. The result revealed that implanting AI into codes that will run in the cloud will improve efficiency and also introduce intelligent computing language in the software for a machine to take decisions autonomously and in real-time. Issa et al. (2016) conceptualised the need for AI in audit and workforce supplement. The study raised a number of research questions aiming at revealing AI-driven transformation of the contemporary world of audit. The study revealed that AI would potentially replace auditors in various automated tasks. Bruune and Duka (2018) examined the implication of artificial intelligence on jobs and future works. In the analysis, the study revealed that AI has already substituted human employment in the areas previously thought would not be possible for computerisation. Taghizadeh et al. (2013) addressed the abilities and challenges of artificial intelligence. The study revealed that dialogues simulation is one of the pivotal challenges of AI. Odoh et al. (2018) investigated how AI affect the performance of accounting operations. The study which was on South-East based accounting firms, utilised survey research design. Descriptive research was adopted among 185 accountants using a structured questionnaire. The results showed that AI would significantly affect the performance of the accounting function of firms in South-East Nigeria.

Research design and methodology

A systematic literature review was conducted to find out how the accounting activities of future accounting professionals have changed due to digitalisation. The four-step process (Fig. 2) started with (1) the definition of up to fourteen keyword groups consisting of technical search terms in both English and German, which for example include "computer- assisted," "data processing," "technological speed of change," "digitalisation rate," "ERP," "enterprise-resource-planning," "accounting software," "OCR," "optical character recognition," "big data," "blockchain," or "process mining." Since the choice of keywords directly impacts the search hits, we used four strategies to ensure that we were able to use as many relevant terms as possible: (a) We conversed with an accounting professor about trends and current developments regarding digitalisation in the field, (b) we scoped the databases that we used for our full search and analysed the most frequently occurring trends and technologies, (c) we analysed accounting curricula from vocational education and higher education institutions to adjust our concepts of different competence frameworks, and (d) we used a synopsis from different curricula and textbooks to systematise activities. The keywords were grouped because of technical limitations regarding the valid number of connectors, particularly in Google Scholar. To ensure comparability between databases, we used these groups throughout our search. After the definition of suitable terms, (2) a search was performed in the *Google Scholar*, *ERIC*, *EBSCO,* and *Web of Science* databases and complemented by specific relevant international journals ("Journal of Accounting Education," "Journal of Emerging Technologies in Accounting," "Journal of Information Systems") which were chosen due to their topicality regarding the research questions. They were selected based on their impact and the number of search hits. Due to the increasing speed of digitalisation, the period between 2000 and 2020 was selected. In the later stages of the study, the research group also decided to include a 2021 article due to its topical suitability.

While performing the content analysis, we applied a strategy that limited the number of hits. Only the first 30 pages of search hits for each keyword group were scoped for relevance. This was necessary because of the broad scope of the search terms. This specific cut-off point was chosen because, in a preliminary scope, the number of potentially useful search hits declined drastically. On average, no more (potentially) relevant hits were identified after 29 to 30 pages, thus setting this number for the full search as well. This process yielded a total of 9,553 potentially relevant hits across all media. A scan of both titles and abstracts resulted in (3) a total of 190 potentially suitable sources of which 72 articles proved relevant to the research questions. Irrelevant publications either referred only to accounting *or* digitalisation, were purely didactic, or had a general IT-orientation without an accounting focus. If the relevance could not be decided, the full text was scanned for the connection between accounting and digitalisation. The last step (4) was the content analysis. A total of 70 articles were retrievable and thus used in the coding process. The coding manual was developed and completed with appropriate anchor examples to illustrate the variety of possible accounting activities and to align our general understanding of the categories. The coding ensued in pairs to promote discussion.

Conclusion

As the world and demand of the market is changing rapidly and companies will remain in lower categories without adoption where same is the DASe in banking sector, they are also obligated to make their system updated according to trend and need of timme and market. One of these important factors is making the accounting system Digital to enhance the organizational performance as soon as possible. Therefore, the current

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research study aim to investigate theist of Digital accounting system on organizational performance of banking sector of Nangarhar province, Afghanistan. The study has used two types of data; the primary data was collected by questionnaire where the secondary data was collected from literatures of existing researches and other references. The correlation matrix of study revealed that; there is strong positive (0.736) relationship among Digital accounting system and organizational performance with 0.001 significant levels. Furthermore, the beta value of regression analysis has shown that if 1% focus is being taken to Digital accounting system, 0.749% change will take place in organizational performance with having 0.001 significant levels.

Recommendations

Researchers are recommended to investigate the same issue in banking sector of other provinces and country level. Others are suggested to study the same issue in other organizations. Others are recommended to study the same issue with having different methodology and tools of data collection. Others are suggested to study the effect of Digital accounting system on other variables in order to know the importance of Digital accounting system another factors

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