# DIGITAL ACCOUNTING PRACTICES AND AUDIT PERFORMANCE IN NIGERIA: A PRAGMATIC EXPLORATION

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#### **ABSTRACT**

This study aims at investigating the effects of audit learning competency, digital cultural involvement and stakeholders' expectations on digital accounting implementation in Nigeria. There had being the need of transforming from the analogue system of accounting handling to digital accounting. The work of auditors are becoming cumbersome due to interconnected smart machines. Researchers in developing world like Nigeria does not want to be left behind in the comity of digital accounting and audit performance. Questionnaires were administered through, 290 professional accountants, tax experts and tax administrators, they responded through google forms. The questionnaire were based on five Likert scale of strongly agreed, agreed, not decided, disagreed and strongly disagreed. The sampling technic was purposeful as the questionnaire were given to professional accountants in Ondo State through their various platforms. Regression analysis was done through Ordinary Least Squares (OLS) to test the hypotheses formulated for the study. The study revealed that implementation digital accounting had enhanced audit performance in Nigeria. It was equally revealed that audit learning competence and stakeholders' expectations capabilities exhibited a positive and significant effect on digital accounting implementation in Nigeria. Digital cultural involvement exhibited positive but statistically insignificant effect on digital accounting implementation in Nigeria. It was therefore recommended that auditors should be involved in more rigorous digital training in order to help in achieving digital accounting implementation in Nigeria. Also there is the need for stakeholders in Nigeria to broaden their digital culture (expectations) in the use of the internet of things, quantum computing, artificial intelligence (AI), robotics and the development of analytics in order to enjoy spreading out in digital accounting application.

**Keywords:** Digital Accounting Implementation, Audit Learning, Digital Culture, Stakeholders' Expectation and Audit Performance.

## 1. INTRODUCTION

Digital Accounting Practices generally deals with the method in which interrelated smart technologies are integrated into establishments, assets, and the general public. Digital Accounting carried out is described by reasoning technologies, automation, the advance of analytics, artificial intelligence (AI), the Internet of things and quantum computing. Surrounded by their many substantial features, these evolving knowhows would modify the good manners in which data and information are engaged and how they would support firms to accomplish better proficiency (Cotteleer & Sniderman, 2017; Lohapan, 2021). Researchers pointed out that digital revolution spread over to accounting and auditing professionals because Accountants and Auditors are interested to be equipped with knowledge and capability that are necessary for building cultured accounting information systems (Kruskopf et al., 2020).

Accounting and audit professions are developing as the digital revolution is gaining ground. New expertise plays a vital role in digital accounting transformation. In comparison to other fields in commerce, accounting and audit would be at the greatest advantage when digitalization is engaged to accomplish, process, and assess commercial data (Fernandez & Aman, 2018). Thus, this act would eventually contribute to increasing efficiency and at the same time would help to decrease asking price and period spent on accounting and audit services.

#### **Statement of Problem**

Digital transformation in Accounting and Auditing has no doubt brought in some major advantages of accuracy and speedy delivery of services. This digital technology had ushered in disruptive technology. Hence, many professionals have not fully-embraced the digital accounting practices especially in the world of tax and finance. Henceforth, researchers are becoming concerned and have started the study on digital accounting practices and audit performance globally. This was to investigate why some tax administrators appear to be operating in an all the time more smaller field as they refused to key into the new digital world quickly (Ageeva et al., 2021; Islam, 2017; Kruskopf et al., 2020; ;Kokina & Blanchette, 2019; Lohapan, 2021; Supriadi et al., 2019; Thottoli, 2021; Tran, 2021; Zakaria, 2021;).

There have been methodological weaknesses in terms of research instruments, as researchers mostly used interviews, short period of observation, limited sample size and one-sector specific in most prior studies. Also, most of the studies on 'digital transformation in accounting and auditing' concentrated on developed economy. Thus, a gap exists due to prior studies that have not comprehensively addressed digital revolution in Accounting and Auditing. In the light of the above, this study basically examined the relationship between audit learning competence, digital culture and stakeholders' expectation, and digital accounting implementation in Nigeria using a pragmatic investigation among tax experts and tax administrators.

The research questions that simply come to mind at this junction are: To what extent does Audit Learning competence affect digital accounting implementation in Nigeria? What is the effect of digital culture on digital accounting implementation in Nigeria? What is the influence of stakeholders' expectation on digital accounting implementation in Nigeria? To what extent has digital accounting implementation affected audit performance in Nigeria? Thus, the broad objective of this study is to investigate the determinants of digital accounting implementation in Nigeria. The specific objectives of this study are to: establish whether audit education affects digital accounting implementation in Nigeria, and ascertain whether there is any significant effect of digital culture on digital accounting implementation in Nigeria, and find out if there is any significant relationship between stakeholders' expectations on digital accounting implementation in Nigeria. Finally, the study had surveyed the contribution of digital accounting implementation in Nigeria to audit performance.

## Significance of the Research

This study provided ways for policy makers, tax auditors, tax administrators, Nigeria government to identify possible determinants of digital accounting implementation in Nigeria after IFRS implementation. It has also helped researchers who are required to conduct longitudinal investigation between and among firms. Not only that, this study served as a data-base for future researchers on digital accounting implementation in Nigeria. Since no study, to the best of the researcher's knowledge, has extensively

covered this area in Nigeria. Finally, the study provided a leeway to improve on determinants of digital accounting implementation and audit performance for dealing with current digital economic conditions in the country.

This study covered tax administrators, tax auditors and professional accountants in Nigeria. The time frame for the study was from 2012 to 2022 (most recent digital transformation in Accounting Nigeria). The study is divided into six sections. The aforementioned paragraphs deal with the introduction. The rest part of the paper are: section two, literature review; section three, methodology; section four, result analysis and discussion on findings and section five treats the summary and conclusion of the study while section six treats the contributions to knowledge and directions for future research.

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#### 2. LITERATURE REVIEW

The current study examined the relationship between audit education, digital values, and stakeholder expectancy, and digital accounting implementation. Thus this section reviewed the concept of digital accounting implementation, audit education, digital values, and stakeholders' expectancy.

## **Digital Accounting Implementation (DAI)**

Lohapan, (2021) refers to digital accounting implementation as the ability of Accounting and Auditing professionals to advance the quality of accounting services by using digital technology. Such expertise is employed to gather, stock, examine, and developing facts in a logical and suitable method. Khanom (2020) pointed out that configuration of accompanying commerce as well as social lives had changed. This is due to the fact that in the extant world, technological developments are affecting society and economy. This digital revolution has paved the way for a new era of information, sparking a fourth industrial revolution, or "Industry 4.0" as it is also known (Schwab, 2017). Thus, the incorporation of the internet of things, internet of systems, and cyber-physical systems had made the fourth industrial revolution (Industry 4.0) feasible.

The massive changes in technology to the likes of data automation (DA), block chain (BC) and artificial intelligence (AI) are leading in what some are calling the 'Fourth Industrial Revolution'. At the same vein, others are calling it 'the Transformation Economy" (possibly to be precise). The digital revolution and dematerialization of the world economy are under way (Batchai, 2022; Özdoğan, 2017). Thus, Digital transformation is the procedure an establishment uses internet technology (IT), communication and Internet to the improvement of its activities, services and procedures and make them to internal and external parties that need them. Digital Accounting Implementation (DAI) depends on the following elements: availability of data flow; use of IT; and Qualified human resources

#### Digital Culture (DCL) & Digital Accounting Implementation (DAI)

Digital culture is a way where the traditional accounting techniques are replaced with computers. It is a means through which computing and processing of accounting information, and auditing procedures are automated. Hence, digital culture are attitudes, manners, and lifestyles that affect digitalization of accounting and audit technology. Digital culture usually manifest itself especially in terms of attitudes towards the application of the latest digital knowhow. Accounting information and auditing practices would be fully programmed. In most cases classy applications are used to discover threat

and deception in accounting and auditing figure processing. The major advantage in positive digital culture is that less time is used in computing figure and analysis, processing and output consideration of accounting and auditing (Forbes, 2018; Lohapan, 2021).

Digital audit talks about the expert judgment in the human failure, to advance judgement excellence and therefore coming up with a thorough audit output. Hence, information technology (IT) has transformed accounting and audit in work procedures and approach by benefiting from the technological speedy and accuracy in analysis and computation. The positive digital accounting had resulted to timely, high quality data and with a reasonable cost. IT utilization has become a prerequisite given the rapid business development and it is needed in all aspects of life (Batchai, & Batchai, 2022; Kruskopf et al., 2020). Thus, digital culture influences positively on the intention to use technology in supporting accounting and audit work. Based on the review of digital culture and digital accounting implementation, it hereby hypothesized that:

**HO1:** Digital Culture has no significant effect on Digital Accounting Implementation in Nigeria.

# Auditors' Competency (AUC) & Digital Accounting Implementation (DAI)

The degree of Auditors' capabilities and skills can be known through several indicators. One of the indicators is through practical proficiency (PP). The PP entails skills and expertise in tackling a set of responsibilities in a realistic situation. Another indicator is through—foundational competency (FC). FC is the knowledge that shows the root of practical proficiency when an action is to be in use. The third measure is reflexive competency (RC). The RC shows the ability of the auditor to integrate the PP and FC. The manifestation of the two always show in the ability of the auditor to adjust to circumstances that change quickly and to be accountable for actions and inactions (Gorbunova & Kalimullin, 2017; Hossain, 2018; Thibaut et al., 2018).

Adedoyin and Okere, 2017; Chen et al., 2017; Mohammed et al. 2018; Omarova et al., 2018, posited that competencies could be practical and non-practical factors. Some good examples of competencies are character and conduct, soft skills and hard skills that are possessed by somebody. Thus, Auditor Competencies include appropriateness of individual conduct, understanding, proficiency and capability, possessed. This usually assist individuals to render to be good and objective results on job performance. Based on the review of Auditors' Competency (AUC) and digital accounting implementation, it hereby hypothesized that:

**HO**<sub>2</sub>: Auditors' Competency has no significant effect on Digital Accounting Implementation in Nigeria.

# Stakeholders' Expectation (STE) & Digital Accounting Implementation (DAI)

Stakeholder expectation speaks of the opinion on the desires that originate from stakeholders. Such expectation usually manifest itself in the form of complying with regulations, uninterrupted upgrading of auditing understanding and procedures of achieving a better proficiency in execution of audit work under a vigorous condition. The current dynamic changes in accounting profession makes it mandatory for educational instructions and professional accountants to respond to major changes in technology. The most three visible changes could be seen smart and digital tools, persistent globalization of reporting and disclosure accounting and auditing standards, and the new forms of

guideline. These areas are posing serious challenges in accounting profession (Islam, 2017; Lohapan, 2021).

Researcher pointed out that the improved guidelines and the appropriate disclosure procedures would produce the most major effect on the accounting profession. It is believed that the environmental changes would inevitably force various professions to adapt to the new environment. Accountants would comply with such a change and employ more sophisticated and smart technologies would be put to use (Islam, 2017; Haque & Islam, 2015). Thus, the current economic issues coupled with the amplified public demands and stakeholder expectations in accounting, Tax auditors are looking for ways to satisfying users' expectations. Based on the review of Stakeholders' Expectation (STE) and digital accounting implementation, it hereby hypothesized that:

HO<sub>3</sub>: Stakeholder expectation has no positive influence on digital accounting implementation in Nigeria.

## **Audit Performance & Digital Accounting Implementation (DAI)**

Lohapan (2021) pointed out that audit performance refers to the results and fallouts of auditors' engagements. The results of the auditors' work usually shows the efficiency and effectiveness of the audit engagement. Fernandez and Aman (2018) pointed out that auditors' efficiency usually manifest in his/her capability to establish errors in audit working papers and make sound judgements with respect to the occurrence of management fraud. The study added that auditors' effectiveness will manifest itself in their ability to reduce the firms' operation expenditures and complete the audit task within a shorter period of time. The manual system makes the process of data collection, analysis and storage more complex and time consuming. There have been many digitalization shifts in the accounting profession as a result of the ongoing digital revolution. It is certain that there will be changes in the accounting and auditing performance (Fijabi & Lasisi, 2021). Manual systems of performing audit had been in existence before the 12 computers invented in early part 1980's (Oladejo & Yinus, 2020). Miniature supercomputers software and small accounting machines tools were available to manage accounting practices more competently. Up-to-date, labor-intensive arrangements and tools are still adopted in some accounting firms in their daily audit performance (Fijabi & Lasisi, 2021). Thus, audit performance denotes the outcomes and results of auditors' engagements. Such audit output usually shows the efficiency of the audit engagement.

HO<sub>4</sub>: digital accounting implementation has no positive influence on audit performance in Nigeria.

#### **Theoretical Review**

The approval of evolving knowledge such as Artificial Intelligence, Big Data and Block-chain is obviously high in the arena of auditing. Hence, this study was anchored on Technology Acceptance Model (TAM). TAM was originally propounded by Davis (1986). The theory assumes that technology will be recognized or believed if it is advantageous and stress-free to use by the employees. According to Melin and Toezay, (2022), TAM pointed out that the main memorandum of TAM is the system usage and that the determinants of computer acceptance is based on intentions, internal beliefs, and external factors. This was supported by Adams et al., 1992 and Kim et al. 2009 when the duo maintained that frequency of system and period usage of system are the two main constructs for system acceptance. The determinants of computer acceptance in general

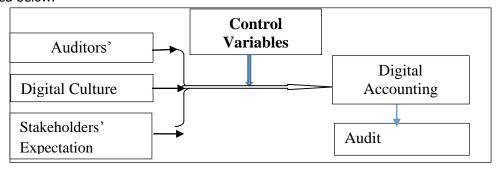
are the impacts of internal beliefs, external factors, and intentions. Consequently, Kim et al., 2016 was of the opinion that, frequency of system and period usage of system are positively related with technology acceptance. System users tends to increase their demand for technology once the application makes their task easier to accomplish.

TAM was relied on by Melin & Toezay, (2022). The study investigated the influence of Digitalization on the Audit profession. It compares one developing country with one developed country. It was revealed that digitalization and emerging technologies have significantly impacted audit quality and audit competence in both developed and under developed countries. The study equally showed that digitalization tends to change the services and proficiencies needed within audit firms. The study also establishes the position of evolving technologies in the framework of auditing. Kim et al. (2016) equally relied on TAM. The study showed a study investigating the usage of generalized audit software (GAS) structures between Egyptian external auditors. The sampled auditors was assessed on how the complexity of GAS features impacted the usage of GAS. The study found that Egyptian auditors are more likely to use the elementary theory of GAS, which have low theoretical complexity, than GAS features with higher theoretical complexity.

Afroze and Aulad (2020) was another researcher that employed TAM. In the study of perception of professional accountants on the application of artificial intelligence (AI) in auditing industry of Bangladesh, Afroze and Aulad (2020) found that audit professionals in Bangladesh have not understood the advantages of AI in auditing. On the other hand, Alles and Gray (2016) pointed out that the acceptance of emerging technologies such as Big Data, AI and Blockchain is high in the field of auditing. In using TAM, investigation in areas of emerging technologies have revealed that the acceptance are minor in under developed countries (Albawwat & Al Frija, 2021; Ismail & Abidin, 2009). Thus, the study was anchored on TAM. The effects of acceptance of technology through audit education, digital culture and stakeholders' expectation were tested on digital accounting implementation in Nigeria.

# **Conceptual Framework**

Figure 1 shows the conceptual framework for the study. The dependent variable is digital accounting implementation. The independent variables are audit competency, digital culture and stakeholders' expectation. The post-ante of digital accounting implementation is audit performance. The approach of achieving this concept is hereby stated below.



**Source:** Researcher' Field Survey, 2023 Figure 1: The conceptual framework

## **Empirical Review**

Supriadi et al., 2019 found that auditor competency and use of information technology are the most dominant variables, respectively, to influence the success of the e-audit system implementation. Melin and Toezay (2022) researched into the influence of digitalization on the Audit profession in a comparative study between developed and developing country. The study found that digitalization is currently changing all areas of society and business. The study equally shows that digitalization and emerging technologies have pointedly impacted audit quality and audit effectiveness in both developed and developing world. The study added that digitalization is currently shifting the skills and proficiencies needed within audit profession.

Lohpan (2021) investigated digital accounting implementation and audit performance among tax auditors in Thailand. The study found that digital accounting implementation has an important effect on audit competency, audit report, and audit performance. The study equally revealed that audit competency and audit report influence audit performance. It was concluded that digital accounting implementation plays a vital role to enhance audit competency, audit report, and eventually results into enhancement of audit performance. Furthermore, the results shows that auditing practitioners and regulators benefitted greatly from digital accounting as it helps them to draw and develop training programs to enhance professional audit efficiency.

Studies had found impact of digital accounting and audit had resulted into improving performance quality in accounting and auditing. It has equally resulted into reduced cost of private auditing firms and offices (Batchai, I. R., & Batchai, R. R. 2022; Ene, 2022; Jaoua, 2022; Lutfi, A. et. al., 2023; Oladejo & Yinus, 2020). Soudani (2013) investigated into electronic accounting practices as a means for financial reporting quality in Nigeria Deposit Money Banks. The result shows that Bank Size (BS), Cost of ICT Deployment (CID), Perceived Ease of Use (PEOU), Perceived Benefit (PB) were specific factors influencing electronic accounting adoption in the selected banks. The study concluded that e-accounting practice enhanced accounting procedure and improved the timeliness of report generation and financial reporting quality of banks in Nigeria

## 3. METHODOLOGY

The researcher made use of questionnaire through google form. Questionnaire were drawn on a four likert scale of strongly agreed (SA), agreed (A), strongly disagreed (SDIS) and disagreed (DIS). The five variables collated were: Digital Accounting Implementation (DAI), Audit Performance (AUP), Audit Learning (AUL), Digital Culture (DCL), and Stakeholders' Expectation (STE). Questionnaire comprises of place of digital in audit firms (definition, opportunities and threats, impact on audit firms culture and on their internal information system. Digitalization and transformation of the auditor's profession comprised of impact of digitalization and data analytic on audit profession, impact on data security, internal implementation strategy, advantages and constraints of the digitalization of their customers. The Strategy audit firms adopt in digital technologies is made up of what made them to become an expert on digital. Among these are strategy of differentiation, customers support strategy. Then, the results of each respondent were analysed and compared one to the others. To validate our analysis, the results found were presented to three partners. This step allows us to insure the internal validity of the results.

# **Sample Selection and Data Collection Technique**

The population of this research was tax auditors, tax administrators and professional accountants in Ondo state. The data was accessed from the database of the revenue department of Ondo state, ICAN and ANAN WhatsApp platforms. As at January, 2023. Two hundred and sixty nine (290) tax auditors, tax administrators and professional accountants completed the questionnaire. The instrument was developed in accordance with a review of literature on digital accounting competency. The dependent variables, independent variables, and control variables were measured using the five Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree" (Likert, 1932). The ordinary least square (OLS) was engaged for analysis. Thus, hypotheses formulated in this research were transformed into equation. Moreover, two control variables, including gender and age, were included in all of those equations for hypothesis testing.

#### Model

DAI =  $a_1 + \beta_1$ AUL +  $\beta_2$ DCL+  $\beta_3$ STE +  $\beta_4$ GEN +  $\beta_5$ AGE +  $\varepsilon$ 

### **Dependent Variable**

DAI = Digital Accounting Implementation

#### **Independent Variables**

**AUL= Audit Learning** 

DCL= Digital Culture

STE= Stakeholders Expectation

#### **Control Variables**

GEN= Gender

AGE= Age

## 4 ANALYSIS OF RESULT & DISCUSSION ON FINDINGS

Table 1 shows the results of the regression analysis. Digital cultural involvement (DCL) has 0.102(0.072). This indicates that digital cultural involvement has above 10% positive contribution to digital accounting implementation (DAI) in Ondo State. This effect of DCL was not statistically significant since 0.072 probability value is greater than 0.05. This positive contribution of DCL to DAI supports the study of Aditya et al. (2018) and Lohapan (2021). Both of them pointed to the fact business decisions reporting had largely been affected by eXtensible Business Reporting Language and cloud computing. This cultural experience had resulted into demand for greater skill in IT audit practices as revealed by Aditya et al. (2018). This study found none significant effect of digital competency on digital accounting implementation (DAI) in Nigeria. Hence, with the probability value of 0.072, the 'HO<sub>1</sub>: Digital culture has no significant effect on digital accounting implementation in Nigeria' is hereby accepted. It is hereby stated that digital culture involvement has no significant effect on digital accounting implementation in Nigeria.

Audit learning competence (education) has 0.204(0.000). This indicates that audit learning knowledge has above 20% contribution to digital accounting implementation in Ondo State. This effect of Audit learning (education) was statistically significant with a probability value of less than 0.05. This finding supports the study of Karlsen & Wallberg (2017). They maintained that auditors that are experienced, skilled and autonomous in the audit line of work often help to produce effective DAI. Audit learning competence (education) has the probability value of 0.00. Hence, the 'HO<sub>2</sub>: Auditors' competency has no significant effect on digital accounting implementation in

Nigeria' is hereby rejected. The study therefore concluded that Auditors' competency has positive and statistical significant effect on Digital accounting implementation in Nigeria.

Finally, stakeholders' expectations capabilities (sec) has 0.275(0.00). This indicates that stakeholders' expectations capabilities has above 27% contribution to digital accounting implementation in Ondo State. This effect of stakeholders' expectations was also statistically significant with a probability value of less than 0.05. This finding was in contrary to the finding of Lophan (2021). He found that in Thailand, stakeholder does not expect or mandate tax auditors to use audit technology. The reason being that paper-based work still helps them to accomplish a thorough audit work as planned. Hence, the 'HO<sub>3</sub>: Stakeholder expectation has no positive influence on digital accounting implementation in Nigeria.' is hereby rejected. The study therefore concluded that Stakeholder expectation has significant influence on digital accounting implementation in Nigeria.

Table 1: Results of OLS Regression Analysis

Dependent Variable: Digital Accounting Implementation (DAI)							
Variables	В	Std. Error	T-stat	Sig.			
Constant	1.232	0.270	4.564	0.000			
Audit Learning (AUL)	0.204	0.061	3.340	0.001			
Digital Culture (DCL)	0.102	0.057	1.804	0.072			
Stakeholders Expectation (STE)	0.275	0.074	3.724	0.000			
Gender (GEN)	0.302	0.114	2.648	0.018			
Age (AGÈ)	0.166	0.052	3.193	0.007			

Source: Researcher's Compilation, 2023

Table 2 shows ANOVA result for the  $R^2$ . The regression result has F-statistics of 10.125 with 0.000 probability. This shows the overall significance of the regression. It is significant sine the probability is less than 0.05 level of significance.

Table 2: ANOVA for (R<sup>2</sup>)

Model	Sum of Squares	Df	Mean Square	F-stat	Sig.			
Regression	43.933	5	8.787	10.125	0.000			
Residual	237.778	274	.868					
Total	281.711	279						

Source: Researcher's Compilation, 2023

#### **Result: Audit Performance**

Table 3 shows the result of the digital accounting implementation influence on audit performance in Nigeria. This was the response from the tax auditors, tax administrators and professional accountants in Ondo State of Nigeria. In the table, 40 respondents strongly agreed while 180 agreed that digital accounting implementation had positively influenced audit performance in Nigeria. Although 30 respondents were on the fence but 20 respondents disagreed that digital accounting implementation had positively influenced audit performance in Nigeria. The remaining 20 respondents believed that there is still room of the improvement on digital accounting implementation for audit profession to enjoy smooth and itch free job execution.

**Table 3: Bar Chart: Digital Accounting & Audit Performance** 

**Source: Researcher's Compilation, 2023** 

#### 4. CONCLUSION

Digital culture has not significantly affected the digital accounting implementation in Nigeria. Though the digital culture was positive, but it is still minimal. Auditors in Nigeria need to replace the traditional accounting techniques with computers. Accordingly, digital culture of Nigeria auditors in terms of attitudes towards the application of the latest digital knowhow should be encouraged. Auditors' competency in areas of practical proficiency, reflexive competency and foundational competency had been superb in Nigeria. Auditors' competency had impacted on digital accounting implementation in Nigeria positively and significantly. Stakeholders' expectations has impacted on digital accounting implementation in Ondo State considerably. The reason being that paper-based work were no more encouraged to accomplish a thorough audit. It is hereby suggested that habit of using digital tools for accompanying audit practices should be increased in order to simplify everyday work. This would enable the auditor to obtain more facts from consumers faster through the possibilities which the new technologies fetch.

Auditors with unproductive information technology that cannot use computers to generate, procedure, stockpile, repossess and interchange all categories of information could bring audit risk. Nonetheless, audit learning competence, familiarity and skills are also to note the new challenges and should stimulate their information technology skills and therefore their audit learning expertise. Auditors are therefore implored by general world standards to adopt available technological skills.

#### 5. CONTRIBUTIONS AND DIRECTIONS FOR FUTURE RESEARCH

# **Contributions**

The study had revealed the effect of audit education, digital culture and stakeholders' expectation on digital accounting implementation in Nigeria. It is another reference points for government and other policy makers. Digital accounting implementation effect on audit proficiency was equally revealed.

## **Future Research Direction**

Only three digital accounting determinants were considered in this study. Future researchers should consider environmental factors and audit contextual factors like financial regulation and corporate governance effects on digital accounting implementation.

#### REFERENCES

- Adams, D.A., Nelson, R. R. & Todd, P.A. (1992). Perceived Usefulness, Ease of Use, and Usage of Information. MIS Quarterly, 16(2), 227-250.
- Adedoyin, O., & Okere, E. (2017). The Significance of Inclusion Concept in the Educational System as Perceived by Junior Secondary School Teachers: Implications for Teacher Training Programmes in Botswana. *Global Journal of Social Sciences Studies, 3*(1), 13-28. https://doi.org/10.20448/807.3.1.13.28.
- Aditya, B. R., Hartanto, R., & Nugroho, L. E. (2018, August). The role of IT audit in the era of digital transformation. In IOP Conference Series: Materials Science and Engineering, 407(1), 012164. https://doi.org/10.1088/1757-899X/407/1/012164.
- Afroze1, D., & Aulad, A. (2020). Perception of professional accountants about the application of artificial intelligence (AI) in auditing industry of Bangladesh. *Journal of Social Economics Research* 7(2) 51-61
- Ageeva O., Karp M., & Sidorov A. (2021). The application of digital technologies in financial reporting and auditing. In: Popkova, E. G., & Sergi, B. S. (Eds.), Smart technologies for society, state and economy (pp. 167–218). Cham: Springer. <a href="https://doi.org/10.1007/978-3-030-59126-7">https://doi.org/10.1007/978-3-030-59126-7</a> 167.
- Albawwat, I., & Al Frijat, Y. (2021). An analysis of auditors' perceptions towards artificial intelligence and its contribution to audit quality. *Accounting 7*, 755–762
- Alles, M. & Gray, G. L. (2016). Incorporating big data in audits: Identifying inhibitors and a research agenda to address those inhibitors. *International Journal of Accounting Information Systems*, 22, 44–59
- Batchai, I. R. & Batchai, R. R. (2022). Impact of digital audit on improving performance quality and reduce costs: An applied research in a sample of private auditing firms and offices. *Academy of Accounting and Financial Studies Journal*, *26*(3), 1-9.
- Chen F., Gorbunova N. V., Masalimova A. R., & Bírová J. (2017). Formation of ICT-Competence of Future University School Teachers. EURASIA. *Journal of Mathematics, Science and Technology Education,* 13(8), 4765-4777. https://doi.org/10.12973/eurasia.2017.00963a.
- Cotteleer, M., & Sniderman, B. (2017). Forces of change: Industry 4.0. https://www2.deloitte.com/insights/us/en/focus/ industry-4-0/overview.html.
- Davis, F. D. (1986). *A technology acceptance model for empirically testing new end-user information systems:*Theory and results. (Ph.D. Thesis, Massachusetts Institute of Technology).

  https://dspace.mit.edu/handle/1721.1/15192.
- Ene, J. C. (2022). Exploring the feasibility of continuous auditing for a digitalized Nigeria. *Proceedings of the 7th Annual International Academic Conference on Accounting and Finance Disruptive Technology: Accounting Practices, Financial and Sustainability Reporting.* Rivers State University of Science and Technology University of Port Harcourt. <a href="https://icanig.org/documents">https://icanig.org/documents</a>.
- Fernandez, D., & Aman, A. (2018). Impacts of Robotic Process Automation on Global Accounting Services. *Asian Journal of Accounting and Governance, 9*, 127–140.https://doi.org/10.17576/AJAG-2018-09-11.
- Fijabi L. K., & Lasisi O. R. (2021). Accounting practices in a digitalized world: Nigerian perspective. *African Journal of Accounting and Financial Research*, 6(1), 63-82. <a href="https://doi.org/10.52589/AJAFR-DWN2CO6G">https://doi.org/10.52589/AJAFR-DWN2CO6G</a>.
- Gorbunova, N. V., & Kalimullin, A. M. (2017). Simulation of the Process of Training the Future Primary School Teachers for Organizing Extracurricular Activities. *Elementary Education Online*, *16*(4), 1860-1872.
- Haque, S., & Islam, M. A. (2015). Stakeholder pressures on corporate climate change-related accountability and disclosures: Australian evidence. *Business and Politics*, 17(2), 355–390. <a href="https://doi.org/10.1017/S1369525800001674">https://doi.org/10.1017/S1369525800001674</a>.
- Hossain, M. M. (2018). Implementing Social Justice in Teaching and Learning English at University Level in Bangladesh: Necessities, Approaches and Challenges. *International Journal of English Language and Literature Studies, 7*(1), 7-14. https://doi.org/10.18488/journal.23.2018.71.7.14.
- Islam, M. A. (2017). Future of accounting profession: Three major changes and implications for teaching and research. https:// www.ifac.org/global-knowledge-gateway/business-reporting/ discussion/future-accounting-profession-three-major.
- Ismail, N. A. & Abidin, A. Z. (2009). Perception towards the importance and knowledge of information technology among auditors in Malaysia. *Journal of Accounting and Taxation 1* (4), 061-069. <a href="https://academicjournals.org/journal/JAT/article-full-text-pdf/0F1D3E3694">https://academicjournals.org/journal/JAT/article-full-text-pdf/0F1D3E3694</a>
- Jaoua, Fakher, Hussein Almurad, Ibrahim Elshaer, and Elsayed S. Mohamed. (2022). E-Learning Success Model in the Context of COVID-19 Pandemic in Higher Educational Institutions. *International Journal of Environmental Research and Public Health*.
- Karlsen, A. & Wallberg, M. (2017). *The effects of digitalization on auditors' tools and working methods A study of the audit profession*. (A master Thesis of University of Ganle). <a href="https://www.diva-portal.org/smash/get/diva2:1115922/FULLTEXT01.pdf">https://www.diva-portal.org/smash/get/diva2:1115922/FULLTEXT01.pdf</a>.

- Khanom, T. (2020). The accountancy profession in the age of digital transformation: challenges and opportunities. *International Journal of Creative Research Thoughts (IJCRT), 8*(2), 1525-1533. https://www.researchgate.net/publication/339569892.
- Kim, H., Kotb, A., & Eldaly, M. (2016). The use of generalized audit software by Egyptian external auditors: The effect of audit software features. *Journal of Applied Accounting Research*, 17(4) 456-478.
- Kim, H., Mannino, M. and Nieschwietz, R.J. (2009). Information technology acceptance in the internal audit profession: impact of technology features and complexity. *International Journal of Accounting Information Systems* 10(4) 214-228.
- Kokina, J., & Blanchette, S. (2019). Early evidence of digital labor in accounting: Innovation with robotic process automation. *International Journal of Accounting Information Systems, 35*, 100431. <a href="https://doi.org/10.1016/j.accinf.2019.100431">https://doi.org/10.1016/j.accinf.2019.100431</a>.
- Kruskopf, S., Lobbas. C., Meinander. H., Söderling. K., Martikainen. M., & Lehner. O. (2020). Digital accounting and human factors: theory and practices. ACRN Journal of Financial and Risk Perspectives, 9, 78–89. https://doi.org/ 10.35944/jofrp.2020.9.1.006.
- Kruskopf, S., Lobbas. C., Meinander. H., Söderling. K., Martikainen. M., & Lehner. O. (2020). Digital accounting and human factors: theory and practices. ACRN Journal of Financial and Risk Perspectives, 9, 78–89. https://doi.org/ 10.35944/jofrp.2020.9.1.006.
- Lohapan, N. (2021). Digital Accounting Implementation and Audit Performance: An Empirical Research of Tax Auditors in Thailand. *Journal of Asian Finance, Economics and Business, 8(*11), 121–131.
- Lutfi, A., Alkelani, S. N., Alqudah, H. Alshira'h, A. F., Alshirah, M. H., Almaiah, M. A., Alsyouf, A., Alrawad, M., Montash, A., and Abdelmaksoud, O. (2022). The Role of E-Accounting Adoption on Business Performance: The Moderating Role of COVID-19. *Journal of Risk and Financial Management 15*(617). https://doi.org/10.3390/jrfm 1512 0617.
- Melin & Toezay, (2022). The Effects of Digitalization on the Audit profession A comparative study between one developed and one developing country. Master Thesis. https://research.portal.hkr.se/ws/portalfiles/portal/44024928/.
- Mohammed, A. M., Joshua, O., & Ahmed, M. N. (2018). Audit Fees and Audit Quality: A Study of Listed Companies in the Downstream Sector of Nigerian Petroleum Industry. *Humanities and Social Sciences Letters*, *6*(2), 59-73. <a href="https://doi.org/10.18488/journal.73.2018.62.59.73">https://doi.org/10.18488/journal.73.2018.62.59.73</a>.
- Oladejo, M. O., & Yinus S. O. (2022). Electronic Accounting Practices: An Effective Means for Financial Reporting Quality in Nigeria Deposit Money Banks. *International Journal of Managerial Studies and Research (IJMSR), 8*(3),13-26. <a href="http://dx.doi.org/10.20431/2349-0349.0803002">http://dx.doi.org/10.20431/2349-0349.0803002</a> <a href="http://dx.doi.org/10.20431/2349-0349.0803002">www.arcjournals.or</a>.
- Omarova, L. B., Kalimullin, A. M., Grudtsina, L. Y., Korzhuev, A. V., & Zhukova, M. Y. (2018). *Philosophical anthropology in postmodernism. XLinguae, 11*(3), 76-85.
- Özdoğan, B. *Ed.* Gokten, S. (2017). *The Future of Accounting Profession in an Era of Start-Ups.* Accounting and Corporate Reporting Today and Tomorrow. DOI: 10.5772/ intechopen. 69264.
- Soudani, S. N. (2013). The impact of implementation of e-accounting system on financial performance with effects of internal control systems. *Research Journal of Finance and Accounting*, 4(11). 17-28. <a href="https://core.ac.uk/download/pdf/234629592.pdf">https://core.ac.uk/download/pdf/234629592.pdf</a>.
- Supriadi, T., Mulyani, S., Soepardi, E. M. & Farida, I. (2019). Influence of Auditor Competency in Using Information Technology on the Success of E-audit System Implementation. *EURASIA Journal of Mathematics, Science and Technology Education, 15*(10), 1-13. https://doi.org/10.29333/ejmste/109529.
- Supriadi, T., Mulyani, S., Soepardi, E. M., & Farida, I. (2019). Influence of auditor competency in using information technology on the success of E-audit system implementation.
- Thibaut, L., Ceuppens, S., De Loof, H., De Meester, J., Goovaerts, L., Struyf, A., & Depaepe, F. (2018). Integrated STEM Education: A Systematic Review ofInstructional Practices in Secondary Education. *European Journal of STEM Education*, *3*(1), 02. <a href="https://doi.org/10.20897/ejsteme/85525">https://doi.org/10.20897/ejsteme/85525</a>.
- Thottoli, M. M. (2021). Impact of information communication technology competency among auditing professionals. Accounting. *Analysis. Auditing. 8*(2), 38–47. https://doi.org/10.26794/2408-9303-2021-8-2-38-47.
- Tran, N. A. (2021). Intention to use digital banking services of young retail customers in Vietnam. *The Journal of Asian Finance, Economics, and Business, 8(*8), 387–397. https://doi.org/10.13106/jafeb.2021.vol8.no8.0387.
- Zakaria, H. (2021). The use of artificial intelligence in the e-accounting audit. In A. Hamdan, A. E. Hassanien, A. Razzaque, & B. Alareeni (Eds.), The fourth industrial revolution: Implementation of artificial intelligence for growing business success (pp. 341–356). New York: Springer