

DIGITAL ACCOUNTING AND INTERNET INFRASTRUCTURE: DISTRIBUTED LEDGER TECHNOLOGY AND CLOUD ACCOUNTING

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ABSTRACT

The study examined digital accounting in internet infrastructure with emphasize on distributed ledger technology and cloud accounting. The empirical study adopted a descriptive survey design. A questionnaire was used for data collection in a sample size of 121 selected randomly from the staff and students of Imo State Polytechnic, Omuma. The data collected from the respondents were analyzed with the frequency distribution table and chi-square (x2) statistical technique. The findings revealed the imperativeness of accounting technology in internet for future accounting practitioners. In other words, cloud accounting and distributed ledger technology has significant effect with digital accounting in internet infrastructure. The study, therefore, recommended among others that accounting practitioners should adopt these accounting technologies in internet to enhance efficient application of accounting skills in this 21st century technological domain. Further study can be carried out on the topic using more sophisticated statistical tools to analyze the relevant data.

Introduction

The evolution of internet as one of the enablers of information and communication technology (ICT) has made it possible for many transactions and disruptive technologies to occur over the internet. Due to the dynamism of accounting profession, internet has continued to exert significant changes basically in the area of distributed ledger technology (DLT) and

cloud accounting. According to Lumpkin and Jones (2019), controversy has arisen in the accounting world as technological advances continue to change humanity to the extent that accountants are at a high risk of losing their jobs in the future due to automation and robotic computers. They believe that technology is making accountants become business advisors and their technical skills are becoming less important than their soft skills.

As the dynamics have shifted in the accounting industry, newer technologies like cloud accounting, artificial intelligence (AI), tax software, distributed ledger technology, and the presence of social media have started a trend that foreshadows growth in accounting technologies in the near future. Many accounting jobs and information will be internet based. The internet-based information architecture will allow the exchange of services and goods between all elements, equipment and objects connected to the network.

However, recent development in management and social shows that at the turn of 20th century, management debate came to be dominated by a chorus of sweeping claims concerning the inevitability of various technological transformations of institutions through ICT (Obiah, Adioha & Mbaeri, 2022). The 21st century has no doubt witnessed a massive development in information and communication technology. This development has affected virtually all aspects of human endeavours, operations and services of industries and institutions including accounting technology. However, the emergence of internet, Echedom and Kakiri (2021) noted, is the most important and influential development of ICT. Today, the internet has become a norm of contemporary way of life as everyone wishes to be connected to the internet. Besides, providing a veritable platform for effective and efficient promotion of workflow and services, the rapid growth of the internet globally lies in its ability to foster and shape human relationships and communication including accounting information (Echedom & Kakiri, 2021). The internet of communication with some form of human intervention has advanced the course of accounting technology and improved services with financial information. Yet, with the swift development of ICT enabled gadgets and devices all kinds of sensing device such as the Radio Frequency Identification (RFID) device, infrared sensors, global positioning systems laser scanners and other sensors like the smartphones.

Historically, in 1989, the 'internet' was first introduced and quickly spread globally by Tim Berners Lee, who proposed the framework of the worldwide web (WWW), which laid the foundation of the internet. In 1990 John Romkey developed a toaster that could be turned on and off over the internet. It was a toaster wired to the computer as there was no wi-fi then. Since the birth of the internet, the trend for connecting various things to the internet has become very large. Accounting technology is already leveraging the internet for many of their services via distributed ledger technology and cloud accounting. In the opinion of Gubbi, Buyya, Marusic and Palaniswamia (n.d.) a radical evolution of the current internet into a network of interconnected objects that not only harvests information from the environment (sensing) and interacts with the physical world (actuation/command/control), but also uses existing internet standards to provide services for information transfer, analytics, applications and communications. Fuelled by the prevalence of devices enabled by open wireless technology such as Bluetooth, RFID, wi-fi and telephonic data services as well as embedded sensor and actuator, accounting has transformed the current static internet into a fully integrated future internet through DLT and cloud accounting.

Cloud accounting has brought remarkable technological advancement and transformation that it has attracted much attention in both commercial and academic settings (Obiah, Eke & Okere, 2022). Since the idea of cloud accounting was put forth in 2011, where technological innovators merged their cloud technology into business developing virtual accounting data

storage and processing platform with software sets in motion as the wheels behind cloud accounting (Tarboush, 2018).

The advent of distributed ledger technology with all of its promise for disrupting existing business, economic, and even governmental and social models, more immediately has disrupted traditional models of accounting technology. It is a way of recording and sharing data across multiple data stores (also known as ledgers), which each have the exact same data records and are collectively maintained and controlled by a distributed network of computer servers, which are called nodes. Ledger is replicated across many computers referred to as 'nodes,' which are connected to a common network over the internet (Chima, Ajaero & Obiah, 2020). This revolutionary technology, which surfaced in 2008 as a software to facilitate electronic cash of Bitcoin introduced by Satoshi Nakamoto is now one of the disruptive technologies in accounting system.

This shows that internet has opened many doors and made life easier in many ways, especially in the accounting technology, where documents can be shared, research can be conducted and taxes can be filed online. Through the information systems, the workload of the accountants has been reduced and the complicated and difficult accountings operations are cared out using traditional methods are done quickly and easily (Ciurea & Man, 2020).

Statement of Problems

The current technological revolution depends on computers, the technical backbone of the internet, search engines and digital platforms that has made cloud accounting and distributed ledger technology possible (Obiah, Eke & Akpelu, 2022). Thus, accounting practitioners in all entities have to focus on the upcoming challenges and opportunities the technological impact-based internet, presents in this 21st century. According to Ahson and Ilyas (2011) the proliferation of networked devices, internet services and simulations has resulted in large volumes of data being produced, which can be leveraged by accounting profession in the area of cloud accounting and DLT.

Internet has provided many e-channels, which messages and communications can easily be transmitted and facilitated to ensure easy transactions. For instance, in 2023 Nigeria banking industry through the contribution of Nigeria started the implementation of Naira redesign and withdrawal limit which plunge many Nigerians into cash confusion. In this situation it was mostly the e-channel – bank mobile apps, USSD, point of sale and automated teller machine (ATM) cards that are enhanced by internet that facilitated transactions. Thus, most financial and commercial transactions today are done through the internet. But the complexity of these transaction plans and strategies require every service that accountant offers. These services include audit and assurance services, tax advisory, consulting, forensic, risk management among others. However, as accounting services expands and technology advances through the internet, the number one priority of accounting innovators are creating machines and networks that will allow human's responsibilities to be easy and less expensive. Cloud accounting and DLT has become important in the profession which has led to entities establishing a team of employees to integrate new accounting models, methods and techniques in the effective discharge of accounting services. In other words, having the appropriate soft skills in this area has proven to be only a minor part of an accountant's job.

Cloud computing stores and shares over a few exabytes of data on computers and devices on demand which is similar to a role of an accountant who engages with clients and request information that takes longer to obtain. Many users today access the internet or are connected to internet. For Abeid (2020) the fourth Industrial Revolution is creating an environment in which everything will be perceptible, interconnected and intelligent. The internet is not only a

network of computers, but it has evolved into a network of device of all types and sizes including smartphones, laptops, vehicles, home appliances, all communicating and sharing information based on specified protocols in order to achieve smart re-organizations, positioning, tracing, safe and control and personal real-time online monitoring, online upgrading, process control and administration.

The proliferation of the internet is made possible with the availability of broadband connection devices via the internet at minimal cost, availability of more devices with network capabilities, and emergence of smart technology like smartphones. Internet technology enabled capabilities has made it possible for accountants to access as well as render variety of services such as communication, information dissemination, email, online shopping, etc. The internet of communication with some form of human intervention has advanced the course of communication and improved services (Rajguru, 2019; Pujar & Satyanarayana, 2015). Mobile networks already deliver connectivity to a broad range of devices, enabling the development of innovative new services and applications. This new wave of connectivity is going beyond tablets and laptops with the prospect of intelligently connecting almost anything anyone to what GSMA describes as the 'connected life.' They said that the number of mobile connections globally is set to rise dramatically to reach 10.5billion in 2020, while number of connected devices across all access technologies could reach 25.6billion (Hucanu & Geogescu, 2016). While earlier, in 2011, the number of everyday physical objects and devices connected to the internet was around 12.5billion only in 2011, the number of people (Salazar & Silvestre, 2017). CISCO Internet Business Solutions Group (IBSG) (2011), predicts there will be 25billion devices connected to the internet by 2015 and 50billion by 2020. Gartner forecasts 20.8billion connected devices. During 2003, there were 500million devices connected to the internet.

Therefore, the internet is one of the most important and powerful creations in all human history (Evans, 2011). Yacob, Baharum, Aziz, Sulaiman, Amir and Hamzah (2020) said that the main features of the internet are in line with national development. The underlying technologies to support ubiquitous computing include internet, advanced middleware, operating system, mobile code, sensors, microprocessors, new i/o and user interfaces, networks, mobile protocols, location and positioning and new materials (Anwar, 2017).

Therefore, the focus of this paper is to look at internet in the opportunities of accounting profession in area of cloud accounting and distributed ledger technology. The internet infrastructure will equally be considered to measure the access of people in this technology and how accountants have adopted the technology.

Objectives of the Study

The main objective of the study is to examine the effect of digital accounting on internet infrastructure and distributed ledger technology and cloud accounting in Nigeria. Other specific objectives are:

- To determine the effect of distributed ledger technology on internet accounting report
- To ascertain how cloud accounting technology internet affect internet infrastructure

Review of the Related Literature

The Concept of Internet

Internet refers as a virtual networking medium that can be connected and used on various devices these days. A few of the uses are e-economy, e-learning knowledge sharing, social

connectivity, e-governance, variety of media, file transfer, communications, etc. The devices also execute operations based on information received from the information and communication networks (Zennaro, 2012). Internet can equally be defined as the world-wide network of interconnected computer networks, based on a standard communication protocol, the internet suit. Internet is significant in today's economic and financial activities globally. It has made the world to become a global village to the extent people are connected to the global and internet.

The evolution of accounting has continued with the development of technology, economics and society. Therefore, accounting technology now provides financial information about economic activities that is intended to be used in making economic decisions through the application of information and communication technology (ICT). The ICT which supports platform for seamless electronic financial transactions makes accounting technology imperative in advancing economic integration. According to broad definition of accounting by Onyekwelu (2019), the systematic approach, procedures and processes adopted in gathering, recording of data relating to economic and financial transactions of any organization (profit or non-for-profit making), sorting, classifying, summarizing, computing, analyzing, interpreting and communicating the outcome of these processes to the users (interested parties) of financial information. Accounting, Sobhan (2019), like most other fields, is evolving continuously due to its dynamic nature and global technological advancement. The invention of cloud technology has positively affected the field of accounting.

Cloud Accounting

Cloud accounting is an innovation that creates a new market and value network and eventually disrupts an existing market and value network, displacing established market-leading entities, products and alliances (Obiah, et al, 2022). Cloud accounting or online accounting has being defined as a software that acts like an accounting application installed on user's computers, though it is performed on servers offering online services and users can access them through web browsers (Livera, 2017). For Kemski and Nyberg (2014) sees cloud accounting as a new accounting data collection acquisition tool and mode, leaving the information system no longer as an isolated island of information, but bringing the possibility to obtain a larger extent of external information which can strengthen an entity's accounting by analyzing financial and non-financial information control more effectively. As accounting technology in internet, the cloud already creates tremendous value for accountants and entities by making the digital world simpler, faster, more powerful, and more efficient. In addition to delivering valuable internet-based services and applications, the cloud can provide a more productive and flexible way for entities to manage their information technology (IT) (Obiah et al, 2022). Cloud accounting allows the delivery of potentially all accounting information to computer applications and services through networks or the internet.

Distributed ledger technology (DLT)

Distributed ledger technology (DLT) represents, on the other hand, the most radical revolution from longstanding financial bookkeeping practices in Luca Pacioli formally codified the Italian double-entry accounting system. DLT are tamper evident and tamper resistant digital ledgers implemented in a distributed fashion (i.e., corporate or government). They enable a community of users to record transactions in a shared ledger within that community, such that under normal operation of the DLT network no transaction can be charged once published (Chima et al, 2020). Yaga, Mell, Roby and Scarfone (2018) defined DLT as distributed digital ledgers cryptographically signed transactions that are grouped into

blocks. Each block is cryptographically linked to the previous one (making it tamper evident) after validation and undergoing a consensus decision. As new blocks are added, older blocks become more difficult to modify (creating tamper resistance). New blocks are replicated across copies of the ledger within the network, and any conflicts are resolved automatically using established rules. The ledger itself can also be programmed to trigger transactions automatically. With DLT, we can imagine a world in which accounting are embedded in digital code and stored in transparent, shared databases, where they are protected from deletion, tampering, and revision. In this scenario, every agreement, every process, every task, and every payment would have a digital record and signature that could be identified, violated, stored and shared.

Theoretical Framework

Disruptive Innovation Theory

According to Perez in Peplow (2016), the revolutionary innovations are characterized by a set of inter-related radical breakthrough, forming a constellation of interdependent technologies and the strong interconnectedness of the participating systems in their technologies and eventually society. The theory of disruptive technology began with an observation that generated a research question. Across industries ranging from computers to retail to steel, leading firms failed to remain dominant in their respective markets. Prevailing explanations blamed technological complexity, faulty managerial cognition and organizational inertia. The pace of technological progress outstrips customers' demand for higher performing technologies.

Disruptive technology is a concept similar to a radical innovations, technological paradigms, technological regimes or path-breaking technologies analyzed in economics of innovation. But the theoretical framework of disruptive technologies does not explain the drivers of these path-breaking technologies (Christensen, 1997 in Coccia, 2017). However, the theory of disruptive innovation presents some intriguing inconsistencies; its core concepts remain widely misunderstood. Disruption theory is likely to occupy a prominent position on any assessment of relevance including accounting. Many popular authors invoke disruptive innovation to describe any new technology or start up that aims to shake up an industry and alter its competitive patterns; previously successful incumbents facing difficulties or going out of business are routinely said to have been disrupted (Christensen, McDonald, Altman & Palmer, 2018). Like other management theories, the theory of disruptive innovation began with an observation that generated a research question. Across industries ranging from computers to retail to steel, leading firms failed to remain dominant in their respective markets (Christensen et al, 2018). Little wonder then the big four in accounting business including Deloitte, PwC has started investing heavily on DLT to avoid push away. They induced an account of disruptive innovation that consisted of three principal components. Firstly, the pace of technological progress in many industries outstrips customers' demand for high-performing technologies. Secondly, for firms, a strategically crucial distinction between different types of innovation, in technology or in business model can emerge in an industry. Most are sustaining innovations, which improves products and services along dimensions of performance that mainstream customers care about and that markets have historically valued; such innovations enable incumbents to sell more products to their best existing customers and established profit models constrain established firms' investment in new innovations, thus, investments unattractive to incumbents may be attractive to entrants who lack many (or any) customers and enjoy fewer competing investment opportunities (Christensen et al, 2018). Disruptive innovations were originally assumed to take root in the lowest tiers of established markets, but instances surfaced of entrants that appeared to be competing in entirely new

markets. Also, vibrant debates have arisen around the theory of disruptive innovation, from the existence and prevalence of disruption, to the way it gets measured and assessed, to its applicability in different industries. Therefore, the applicability in accounting firms, the new ledger must be in tune with the trend in the financial reporting. Accountants may still not be fast to embrace BCT because the complexity of the underlying technology, environmental and institutional dynamics, may extend the coexistence of competing technology regimes (Christensen et al, 2018). This study believed that no theory swiftly suit this topic of discussion like disruptive innovation theory. All the disruptive technologies including BCT are new innovations in various stages and areas of development and adoption, hence, the paper adopts it as a theoretical framework.

Empirical Review

Within the information systems discipline, cloud computing has witnessed a relative growing amount of research (Senyola, Addaeb & Boatenga, n.d.), while cloud accounting is a recent issue which makes it more lucrative for the research purpose. Most of the researches conducted in this area focused on cloud computing. There are only a handful of researches conducted on cloud accounting most of which tried to explain the theoretical issues of cloud accounting. Researches has been conducted by the national research study commissioned by Commerce Clearing House (CCH) (2013) in Australia; Ebenezer, Omane-Antwi and Kyei (2014); Strauss, Kristandl & Quinn in United Kingdom (2015); Yau-Yeung, (2017); among others. The target group of the study conducted by Shkurti and Muza (2014) consisted professionals in the field of accounting in Albania. The data collected in above study indicates that 74.2% of the respondents are well informed about this new technology, of which 57.6% have obtained this information from the university studies or courses, only 7.5% of respondents had obtained information through professional trainings in organizations where they are employed and the rest, 34.9%, have received information from other sources. Only 25.8% of respondents have answered that they have no information about this technology. They have identified through analysis of data that more than three fourth of the interviewed participants have knowledge and information about the cloud computing technology even if it is relatively new phenomenon.

Dongdara (2015) studied 370 SMEs in Nakorn Ratchasima as a sample group in the study of “the key factors affecting the selection accounting software package of business firms in Muang district, Nakorn Ratchasima province”, using frequency, percentage, standard deviation and variance (One-Way ANOVA) to test their hypothesis at the significant level of 0.05. The research found that important factors associated with selecting accounting software package for SMEs were quality of the software package, costs, access and portability, after-sales service support, flexibility and reliability of supplier/producer of the software, respectively. At a significant level of 0.05, SMEs at different locations, the lengths of operational periods and varying sales indicated differences among seven main factors of selecting accounting software. These levels included of the reliability of the software and its producer/seller, how the software works, systems security, after-sales service/support, product price and cost of acquiring the product, the performance limit and other qualifications provided by the software. This research’s results conform to the research study of “factors affecting the intention in using the EXPRESS program of accountants in higher education by Maneewong (2020). The result found that the Express system program is responded well to the needs of users in providing efficient accounting reports following the accepted accounting principles.

Irumva (2017) assessed how cloud computing affects the execution of accounting operations. It was carried out in Adventist Development and Relief Agency (ADRA), Nairobi, Kenya as

a case study. The study design used was a descriptive case study. The target population was 36 employees and data collection was done using questionnaires and interview guides. The data analysis tool that was used is the Statistical Package for Social Sciences (SPSS) version 22.0. Findings showed a value of 0.907 indicating a strong positive multiple correlation between the independent variables and the dependent variable (execution of accounting operations) at ADRA, Nairobi, Kenya. Findings also showed that a coefficient of determination $R^2 = 0.823$. This meant that 82% of the total variation in y could be explained by linear relationship between X and Y. The remaining total variation of 18% was attributed to factors beyond the research control. The p value was found to be 0.00001, this meant that $p < 0.05$, thus the correlation was found to be significant at 95% confidence level.

Saha, Das, Rahman, Siddique, & Uddin, (2020) examined the meaning of cloud accounting, to investigate whether it is favourable for performance of the organization and what are the challenges if a country like Bangladesh wants to implement it. Primary data have been collected from 300 respondents selected from the field of accounting, such as accountants, accounting graduates of different universities, teachers and bankers. To measure the reliability and validity of the sample size and data, KMO and Bartlett's test have been adopted and the results proved to be reliable and valid for the study. Regression analysis has been done to find out the positive impact of cloud accounting on organizational performance and negative impact of cloud accounting on existing accounting system of the organization. The results of regression analysis supported our alternative hypotheses that cloud accounting can improve organizational performance, but it has also some negative impacts. Descriptive statistics have been used to find out the probable challenges that may be faced by organizations that want to implement it.

Lutfi (2021) study applied the Technology, Organization, and Environment model to examine CB-AIS adoption among SMEs in Jordan. Data collection was achieved using a structured survey questionnaire collected from 156 owners/managers of SMEs in Jordan through online means. The proposed research framework comprises six factors that influence intention to adopt CBAIS (IACB-AIS). Based on the findings, the proposed hypotheses were supported in that the factors positively and significantly affect the IACB-AIS of SMEs in Jordan. Through examining an actual IACB-AIS case and highlighting the importance of its application, the study and its findings are expected to contribute to decision-makers and practitioners in the IT field.

Research Methodology

The study adopted a descriptive survey design. The study used a questionnaire for data collection with a purposive random sampling technique to select the respondents in Imo State, composing of staff of Imo State Polytechnic, Omuma and accounting practitioners. The population for the study is 121 staff of Imo State Polytechnic, Omuma and accounting practitioners in Imo State. The primary data were sourced through a closed-ended questionnaire using a scale of 1 – 5: where (5) strongly agreed (4) agree (3) undecided (2) strongly disagree (1) disagree. 121 copies of the questionnaire were administered, and the researchers retrieved 121. The 10% of the 121 were administered first to confirm the reliability of the questionnaire. The data collected from the retrieved questionnaire was tested with Cronbach's alpha reliability test to determine the internal consistency of the questionnaire item as a measurement. The data collected from respondents were analyzed with the frequency distribution table and chi-square (χ^2) statistical technique.

Presentation and Analysis of Data

Research Question 1: What is the effect of accounting technology in internet on cloud accounting and distributed ledger technology in Nigeria?

In order to answer this question, items 1 – 5 of the copies of the questionnaire were distributed to 121 respondents and the questions seeks to understand the effect of accounting technology in internet on cloud accounting. In order to answer this question, percentages, mean, standard deviation, skewness and kurtosis were used in analysis.

Table 1 Respondents' opinion on effect of accounting technology in internet on cloud accounting and distributed ledger technology in Nigeria

S/N	Variable	Scale	Freq.	%	Mean	SD	Skew	Kurt
1	Internet is the predictor of cloud accounting and DLT	SD	2	1.7	4.27	0.76	-1.65	4.90
		D	2	1.7				
		U	5	4.1				
		A	64	52.9				
		SA	48	39.7				
		Total	121	100				
2	Accounting technology should be considered in internet application	SD	4	3.3	4.07	0.97	-1.39	2.06
		D	6	5.0				
		U	10	8.3				
		A	58	47.9				
		SA	43	35.5				
		Total	121	100				
3	Cloud accounting is relevant in today's ICT advancement	SD	1	.8	4.25	0.79	-1.20	2.16
		D	3	2.5				
		U	11	9.1				
		A	56	46.3				
		SA	50	41.3				
		Total	121	100				
4	Distributed ledger technology is relevant in accounting technology in this 21 st century	SD	3	2.5	4.02	0.97	-1.16	1.27
		D	8					
		U	13					
		A	57					
		SA	40					
		Total	121	100				
5	Accounting practitioners should determine how to adopt these internet technologies in Nigeria	SD	3	2.5	4.23	0.91	-1.49	2.63
		D	3	2.5				
		U	12	9.9				
		A	48	39.7				
		SA	55	45.5				
		Total	121	100				

Source: Authors' Field Survey (2023)

Table 1 shows the responses of the respondents with respect to accounting technology in internet and cloud accounting and distributed ledger technology. The majority of the respondents agreed that accounting technology in internet with respect to internet application, ICT's advancement, and accounting practitioners' adoption all impact on cloud accounting and distributed ledger technology. This is evident as their mean values are all approximately 3 and 4, which implies that majority of the respondents agreed to the assertion

Research Question 2: What is the effect of accounting technology in internet on internet infrastructure in Nigeria?

In order to answer this question, items 1 – 5 of the copies of the questionnaire were distributed to 121 respondents and the questions seeks to understand how internet infrastructure affect accounting technology in internet. In order to answer this question, percentages, mean, standard deviation, skewness and kurtosis were used to analyze the question

Table 2: Respondents' opinion on internet infrastructure and the accounting technology in internet

S/N	Variable	Scale	Freq.	%	Mean	S.D.	Skew	Kurt
1	Internet infrastructures are necessary to promote accounting technology in internet	SD	2	1.7	3.95	0.98	-0.97	0.51
		D	12	9.9				
		U	13	10.7				
		A	57	47.1				
		SA	37	30.6				
		Total	121	100				
2	Accounting technologists should know that power is important for cloud accounting and DLT	SD	4	3.3	3.93	0.98	-1.27	1.50
		D	10	8.3				
		U	8	6.6				
		A	67	55.4				
		AS	32	26.4				
		Total	121	100				
3	Extension of power and internet connectivity to rural areas will enhance the use of accounting technology in internet	SD	2	1.7	4.03	1.00	-0.93	0.31
		D	9	7.4				
		U	19	15.7				
		A	44	36.4				
		SA	47	38.8				
		Total	121	100				
4	Accounting practitioners should promote and contribute in providing internet infrastructure in Nigeria	SD	1	.8	3.98	0.80	-0.68	0.88
		D	3	2.5				
		U	24	19.8				
		A	62	51.2				
		SA	31	25.6				
		Total	121	100				
5	Accounting technology in internet and internet infrastructures are precursor for proper education for cloud accounting and DLT in institutions	SD	5	4.1	3.98	1.08	-1.18	0.84
		D	10	8.3				
		U	11	9.1				
		A	51	42.1				
		SA	44	36.4				
		Total	121	100				

Source: Authors' Field Survey (2023)

Table 2 shows the responses of the respondents with respect to how internet infrastructures affect accounting technology in internet in Nigeria. The majority of the respondents agreed that internet infrastructure with respect to power, internet connectivity, all impacts on the accounting technology in internet in Nigeria. This is evident as their mean values are all approximately 3 and 4 which implies that majority of the respondents agreed to the assertion.

Table 3**Test of Hypothesis**

	Hypothesis 1	Hypothesis 2
	Accounting technology in internet has significant effect on the ICT	Internet infrastructure has significant effect on accounting technology in internet
Chi-square	53.802 ^b	68.843 ^b
Df	12	12
Asymp sig.	.000	.000

Discussion of Findings

Ho1: distributed ledger technology has no significant effect on internet infrastructure

The test analysis rejects the null hypothesis (Ho) at 5% level of significance if the probability of the chi-square statistics for the hypothesis is less than 5%; otherwise, we fail to reject the null hypothesis. Thus, we reject the null hypothesis and accept the alternative, and conclude that cloud accounting and distributed ledger technology as a significant effect on accounting technology in internet.

Ho2: cloud accounting has Internet infrastructure has no significant effect on internet infrastructure.

In hypothesis two, the study rejected the null hypothesis because the probability of the chi-square statistics in table 3 for hypothesis is less than 5% and thus, we reject the null hypothesis and accept the alternative and conclude that internet infrastructure has significant effect on accounting technology in internet.

Conclusion

The study examined accounting technology in internet through cloud accounting and distributed ledger technology in Nigeria. The data collected and analyzed reveals that accounting technology in internet are imperative for future accounting practitioners and therefore, require to be included in teaching of accounting education. The paper emphasis the need for internet infrastructure like power, internet connectivity in the rural areas and all other aspects of internet technology to enhance the services of accountants in the internet through the application of cloud accounting and distributed ledger technology.

Therefore, the paper concluded that cloud accounting and distributed ledger technology has significant effect with accounting technology in internet. Internet has impacted accounting processes in every good way since accounting is about dealing with information. Any advances in accounting information will have a positive impact on accounting, for the future of accounting, the need for digitalization and transformation is imperative, and traditional accounting methods are eventually replaced by internet-based accounting systems such as the cloud system and blockchain technology.

Recommendations

To ensure effective application, utilization and acquisition of proper knowledge of accounting technology in internet in Nigeria, the study recommends the following policy measures:

- Accounting practitioners should adopt these accounting technologies in the internet such as cloud accounting and distributed ledger technology. The skills are also necessary for efficient application as such, relevant institutions should impart the knowledge to their students and adequate training programme for the practitioners
- The necessary internet infrastructures should be put in place like power, ICT connectivity to rural areas and proper orientation to relevant individuals, practitioners and agencies to enhance accounting technology in internet

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