

Cloud-based Accounting Technologies: Preparing Future- Ready Professional Accountants

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Abstract:- This study examines cloud-based accounting technologies, preparing future- ready professional accountants. Two objectives and null hypotheses were formulated to guide the study. A survey research design approach was adopted for the study, 112 auditing firms in Edo State and 73 students in accounting department for University of Benin was the population of the study. 7-point Likert scale was used to answer the two set of designed questionnaire A and B. The Statistical Package for Social Sciences (SPSS) version 20.0 software packages was used to analyses the data. The findings reveal that the two hypotheses were significant to the dependent variables, therefore, the study recommended that firms should that more strategies on adapting cloud technologies accounting and ensure training and retraining of professional accountants on the uses of cloud technologies accounting as this will enhance the knowledge in all their activities for effective and efficient performance in financial information by making them reachable to owners and employees everywhere with an Internet devices. It is further recommended that since cloud accounting is been taught in the university more effort should be made by educators to domicile cloud accounting in accounting curriculum in our higher institution as this will enhance the students' performance in their place of works as the business world and environment is now a computer village.

Keywords:- *Cloud-Based, Accounting, Technologies, Innovation, Professional Accountants.*

I. INTRODUCTION

Accounting as a discipline in this era cannot be imagined deprived of the sustenance provided by accounting technology. It is a sector that is experiencing abundant revolution, fundamentally glimmered by enormous improvements in modern know-how (Tahmina 2017). The advanced cloud computing phenomenon has demonstrated its worth not just in the information technology industry, also in the accounting profession (Osintsev 2013). Where a firm is be able to get its economic records assessed from the internet, with the assistance of a network. Assuming that records are not kept locally, its means that record keepers, the commercial owners and other interested partners can work together in a digital environment and easily distribute financial data irrespective of their locations (Otilia & Marian 2015).

For some years now, financial accounting has been well-thought-out as a well-known source of data in the establishments (Chua 2013). Hence, it is referred to as the dialectal of businesses and their owners as it provides fiscal knowledge which help executives and investors in decision making process, in which the documents on financial position, profit statement, changes in equity and cash flows are circulated. In an ever challenging business era as of today, accountants should always take advantage of the fast growing technological resources to get their jobs done more proficiently as well as correctly. Ovidiu & Otniel (2013) stated that the cloud technology is new application software that is synonymous with the association of accountants today, because of the modern ages and the increasing use of the web and online trade.

Ozdemir & Elitas (2015) aver that the advancement of cloud accounting is varying consumer anticipations and accountants are reconsidering the ways and methods of their function and operation to meet the current reality, often demanded on them. Individuals are ready now ever than before not to be paying attention to the manual handwritten paper work in their business; rather wants to concentrate on the things they are zealous in finding how to enhanced work and life incorporation. With cloud computing, accountant up to the hour and even minute can fully access and manage financial information on businesses.

The cloud is a podium to make data and software reachable online anytime, anywhere, from almost any device having an internet connection (Shareef, Kumar, Kumar & Hasin 2009). In cloud computing, users easily and effortlessly get access to application software tenuously through the internet or other network via a cloud application vendor. Equally, in cloud accounting, data is stored in "the cloud", where it undergoes modernization and is resent to the users. All operations are performed offline, and because of this the business does not have to install and maintain software on individual desktop computers (Shkurti & Muza 2014).

Cloud based technology, is a present-day technology that has introduced extraordinary inventive method to connect specialists of account all over the world. Cloud accounting has been realized as a way of carrying out activities easily (Dimitriu & Matei 2014). It has also reduce the use of un-modernized in-house technology infrastructure thereby dropping preliminary and maintenance charge of administrations (Ebenezer, Omane, Antwi & Kyei 2014)

Dimitriu & Matei (2015) affirms that with the use of the cloud software, accounting individuals can get data's where ever they are in the world as long as there is an internet connection. The advent of cloud accounting has insipid weakness and effects of manual storage and processing of information and brought about solutions to socialization issues, swift innovation in technology, increase of huge statistics, and widespread use of applications from the internet and the world at large. Professionals of accounting should be willing to welcome the advancement that are occurring in modern environment profoundly as it is vital to advance in accord with the realism we are fronting today.

As a result of the challenges faced by accounting professionals, the accountants should empirically assess the result of these growths with deference to international standard of accounting, key fiscal reportage and organization systems. Understandings all this will be of great advantage to restructuring the establishment they work with (Venkatesh & Davis 2000). Strauss, Kristandl & Quinn (2015) added that the specialist has to the advantages and disadvantages posit by this emerging data using their logical and problem resolving skills. This application is believed to reduce tests faced by professional accounting such as cumulative intricacy of the trading atmosphere, enrich rivalry at the international sector, decrease of the business sequences and incessant need for universal standard practice of accounting.

The consistent drive at broadening the frontiers of excellence in contemporary auditing practice cloud computing, digital technologies and accounting should be the focus of both the organizations and auditing firms.(Venkatesh & Bala 2008) These will be achieve through the continuous learning and maximize innovative digital technologies and to leverage innovative knowledge and skills in achieving audit objectives which will help in auditing for improved competence, relevance and quality service delivery to the society.

Zhang & Gu (2013) assert that the proactive and viable solutions to society are to meet their professional expectations in technical, audit and analytics needs through optimal harnessing of technological capacities as the business environment become complex and energetic.

Chua (2013) reaffirmed that will cloud accounting digital technologies replacing the human factor involved in the manual accounting process, there will be great dangers confronting accountants who do not adjust and acclimate to the new technology. (Venkatesh et al 2008) added that the burning issues are the risks related with cloud accounting, the view on cloud accounting by stakeholders, the alertness and reception of cloud accounting amidst professional accountants, contribution to the prevailing information on this novel example, the rewards and weaknesses linked to the accounting cloud, likely reasons for not acclimating this data and likely issues impacting the target to use cloud accounting as it is viewed by professional accountants are the questions that are left unanswered. The specific objectives are to; (i) study the present level of cognizance and reception of the cloud accounting amongst professional accountants firms in

Nigeria (ii) access the importance of learning cloud accounting among accounting students in University of Benin. Against this backdrop the study attempts to examine cloud-based accounting technologies: preparing future- read professional accountants.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

➤ *What is accounting in the cloud?*

Accounting occupation has largely demonstrated to be interested in IT revolution and there is no uncertainty that the cloud computing sensation has the prospective to alter the accounting software marketplace (Hatherly 2013). With the supposed believed that the cloud computing espousal tendency is incessantly expanding, numerous corporations round the universe have already accepted cloud-based accounting software. (Strauss, Kristandl & Quinn 2015), added that performing accounting through the accounting clouds assures same function as the outdated accounting application that is manually mounted on the operators laptop. The peculiarity and uniqueness of the cloud computing system exist in the way that the application is accessed: with a grid browser, by the means of an internet provider.

This is essentially why cloud technology is believed to convey “as a service”, instead of a merchandise, similar to utilities (e.g. electrical energy, communications). Subsequently, one of the most noteworthy characteristic of the accounting cloud application software is the likelihood to acquire concurrent access to commercial statistics, irrespective of the handler physical whereabouts as long as there is an internet connection. It is unnecessary to buy, connect and manage exclusive substructure or application software. Cloud technology aids business swiftness reasons being that the company can access computing resources on demand or as and when require on their detailed wants in a particular period. “Cloud accounting”, also refers to as “online accounting”, “web-based accounting”, “real-time accounting” or “cloud financials”, and is progressively supplanting independent accounting application software.

Today, executives focus on cost reduction and are dearly in quest of modern accounting answers that, besides executing automated tasks and delivering detailed statements, they also desire a flexible system in order to adjust to different business needs or market conditions (Shkurti & Muza 2014). Suitable and appreciated accounting application software should not only be able to imbibe financial data, but also allow managers to decide conveniently and timely. Addressing these concerns and providing an easier job for the accountant, accounting in the cloud has been developed and improved upon, and as time goes by, more establishments are accepting and recognizing its usefulness as an effective means for saving time, energy and money (Vaquero, Rodero-Merino, Caceres & Lindner 2009).

➤ *Why Cloud Accounting?*

Tahmina (2017) stated that online accounting is of advantageous to professional accountants and the business itself. The most important benefit of cloud technology is easy

access to resources remotely and as requested, thereby enhancing business nimbleness and influencing the entire economic. As a result of this the definite location of financial data will permit users to operate their data at any time and from any location. Economically, the desiring enterprises have the possibility to obtain high-end technology for a reduced price; what is expected of them is to pay periodic subscription fee, as required against alternative investing in expensive hardware and applications. This reason of substantial cost savings in IT targets make cloud technology of great benefits, which is not so in the outmoded accounting type, where organizations have to invest significant resources in capital investment such as: building, infrastructure, installing applications on existing computer and upgrading them.

This at times is difficult undertaking, particularly for newly established companies, but this can be easily resolved by an online accounting solution. Cloud-based applications are conveyed as a service; hence users pay only a sporadic fee for using the accounting software. In the case of big enterprises, implementing cloud-based accounting software can continue by solely desisting from spending money on licenses, IT staff and other unnecessary devices. Nevertheless, the individuals benefiting the most as a result of amplified efficiency and condensed maintenance costs are small and medium-sized companies; comparing with the conventional accounting model, these firms are left with no choice but to invest in costly software and resources; for many of them, such investments are not cheap.

(Tarmidia, Rasidb, Alrazia & Ronic (2014) maintains that these days enterprises no longer see cloud technology as a way out of reducing IT costs; some organizations are still conscious of extra significant utilities of cloud technology such as resistance, scalability and its ability in-service nature. (Computerworld 2014) added that using modern cloud devices, businesses quickly adjust to the economic changes and instantly familiarize with the ever increasingly likely challenging. With this circumstance the devices is transported as a service, with the option to use the application with regard to the essential stage of bulk job. In addition, users can mechanically perform on and on jobs as well as time consuming tasks, thereby improving the business objectives. More to the significant features of cloud accounting are the ready and ease use of the intuitive design which benefits accountants, auditors, business owners and business partners. Oliveria, Thomas & Espandana (2014) stated that again companies' has the opportunity to use a test version which enable them ascertain the suitability of the model before making a long-term investment.

The cloud technology allows for teamwork and interacting with users at the same time to access correctly real-time information, regardless of their locality. For instant the online payment by clients' is done with easy and painlessly. There by helping to move from hard paper copy accounting reports to soft copy and timely financial dash boards which guarantee superior foresight into profitability of the business. One more significant area that is well-thought-out by organizations is the wild coverage of security by cloud

applications (Mohammadi & Mohammadi 2014). Handlers in most times require limited and specific levels of access given to the cloud solution hence the establishment's economic data, held in the cloud, is frequently backed up and meticulously guided through encryption and compound safety conventions. Cloud accounting can positively be an expedient tool for any preemptive business. Though, experts have advised a laborious pre-adoption appraisal (Osintsev 2013).

The present cloud accounting market is many and is extremely populous with genius as well as fake products; consequently companies have to ensure their uninterrupted attention before engaging with a particular data provider or solution. (Livera 2019). In choosing a virtual accounting application it has to fix all the specific necessities and goals of the business. Organizations ought to have in their thought that an effective accounting software choice procedure relies greatly on introductory evaluation of the company's, individuals need and the probable resolution's features.

Johnson, Berres, Salvar, Betson, Young & Ha (2013) recognizes four types of placement of cloud technology

- Private Cloud: This infrastructure is used, managed and operated for one organization, so that a consistent level of control is attained over security, privacy, and governance. It may also be managed by a third party and may exist on premise or off premise. It is also identified as Internal Cloud or on-premises Cloud.
- Public Cloud: The cloud substructure is available to the general public or a large industry group and is owned by an organization. It is also known as external cloud or multitenant cloud.
- Community Cloud: Is referred to as special purpose cloud computing environments managed and shared by a number of similar organizations participating in a common domain or vertical market. It may be managed by the organizations or a third party and may exist on premise or off premise.
- Hybrid Cloud: Is a composition of two or more separate cloud infrastructure either (private, community or public) but are join together by standardized technology that assist data and application portability, it also provides benefits of multiple deployment to the organization.

➤ *Motives for Making Use of Cloud Services*

There are numerous motives that account for the use of cloud services by a company.

- Upholding Attention on the Trade: many businesses are aware that operating an IT department is not by their sole capability; and as such has resulted in purchasing cloud services, which can be in the method of a solitary application or their whole data center which is frequently more cost effective, more dependable and saving partial incomes to increasing the business.
- Quickness: Businesses with significant technology funds may find themselves unable to take advantage of market shifts or respond to competition pressures because the resources, people, or time required to react are unavailable. Cloud based service eliminate these barriers,

- allowing business to alter and channel their technology needs to their business on a regular basis while avoiding the costs associated with an onsite data center.
- **Abridged Investment Expenses:** for many companies huge capital funds can be diminished or eradicated overall in favor of minor scheduled payments in form of subscriptions. Huge capital can be protected by keeping to the lowest minimum capital and operational expenditures to a very sensible amount for trifling and average businesses alike.
 - **All Day/Night Access to Accounting Information:** In conventional accounting, even when an accounting professional was available, access to the business's and thorough financial information was limited. There were many tasks involved, such as getting to the office to review paper-based records or even the desktop computer where the information was kept. In this aspect, cloud computing outperforms traditional methods. Accounting records are as close as a mobile device as long as one has internet connectivity (Ionescu, Ionescu, Bendovschi & Tudoran 2013). For instance, owner of businesses who are always on the road need not worry about staying in touch with his or her company but yet can still maintain and keep track of financial records with the aid of a mobile device.
 - **Financial Information Security:** Financial information is kept secure with cloud accounting. Although one could believe that saving data on a single desktop will keep it safe, this is no longer the case, especially given the risks associated with the manual approach, both in the short and long term. Not only is there a possibility of someone in the office attempting to steal financial material, but the private PC could also develop infection caused by a virus, with no method of recovering it. However, if all financial records are saved online, there is no risk of data loss, even if desktop and hard drive files are damaged or erased. After all, they can still be accessed over the cloud (IFAC 2016).
 - **Team-Wide Availability:** Cloud accounting benefits the entire business teams because the data is available to all authorized users always and at the same times. It is effortlessly when being use and adding a new user is simple just by setting up an authorized profile and password. Better still, it makes collaboration easier. There is no more need to gather in one office or come from different locations or places and take turns to reviewing important documents. This can be done by users with access to the internet simultaneously, from wherever they may be (Hatherly 2013).
 - **Immediate Fixes:** With earlier paper-based systems, if there were any issues with the application, users had to either wait for the next update to address the flaws or call a technician to come out and correct the faults or problem. One of the most essential advantages of cloud accounting is the ability to quickly resolve software difficulties (Giannakouris & Smihily 2014).
 - **Allows for greater workplace cost efficiency:** There is always space for improvement in any firm, no matter how effective or efficient it is (Gartner 2014). Cloud accounting can help with some of the drawbacks that come with owning a business, whether it's finding better ways to stay in touch with clients or trying to keep the business more safe. Many business tools, for example, must be paid in full. However, one of the most appealing aspects of cloud accounting is the ability to pay as you go. It is also possible to set up a monthly plan, which is a terrific approach to compensate for someone on a restricted budget.
 - **Involuntary Data Backup and Recovery;** when it comes to automatic data backup, retrieval, and restoration, cloud accounting once again outperforms traditional accounting. Previously, facts stored had to be scheduled into the workweek plan on a daily, weekly, or monthly basis, and someone had to physically backup the most current accounting records. (Gao, Krogstie & Siau 2011). Cloud accounting allows data to be automatically stored, doing away with the possibility of not remembering to do so, and minimizing human errors. In its place, information's of accounting are stored mechanically and saved to an offsite location. This act helps to safeguard the data's in case there is an unforeseen disaster that could result to the damage or loss of delicate and vital information. And take for example this unforeseen disaster does happen, the cloud-based facility provider can help to replace the data, getting the business back up and running swiftly to diminish the effect and inconvenience to the clientele (Ekufu 2012).
 - **Scale:** Businesses that have peak seasons or different seasonal staffing demands can benefit from cloud services by letting them temporarily dial up more capacity for the seasonal business peaks, without purchasing the hardware or software that would otherwise go unused during the slower times of the year.
 - **Access from Anywhere:** Authorized users can access the programs and data from anywhere they have Internet access. One of the key advantages of cloud services is the ability to conduct business across borders (Doherty, Carcary & Conway 2015).
 - **Staffing Efficiency:** Cloud services can assist in maintaining an efficient technology team by allowing businesses to outsource essential technical specializations or technology workers as needed.
- *Drawbacks of cloud technology*
- The following are the key drawbacks of cloud computing:
- Cloud computing necessitates a consistent internet linking, which is not always guaranteed. It slows down the paste of work at little speed.
 - Security is a big apprehension while using the cloud, as certain secret information may get viral as a result of service interruptions, making them vulnerable to hackers and fraudsters.
 - As people get more accustomed with cloud storage, the information they store becomes increasingly insecure and targetable. When someone entrusts their data to the cloud, they are entrusting it to a group of people they will never meet. Some large businesses with a lot of sensitive data, such as banks and healthcare organizations, would profit

from storing their data locally rather than on the cloud. (Dimitriu and Matei (2015).

- By allowing working remotely while travelling, may pose a risk as unsecured Wi-Fi connections may allow unwanted people to access the data. If someone owns a small company, a larger online service may actually be able to provide with more security than he/she can manage by self (Abubakar & Ahmad 2013)
- Many finance users dread going from an on-premises commercial scheme to something unacquainted like showing worries over the judgment and procedure of software updates, and getting used to a new system. Most of the incomprehensibility about the Cloud is interpreted by legacy software suppliers who are in lack of solutions with true multi-tenant producers. Many of the reasons for fears by legacy vendors are baseless (Mohammadi et al 2014).

➤ *Effect of Accountants in Cloud Accounting Technology*

Cloud accounting gives the financial information of the clientele to the accountant and this can be accessed through the assistance of a mobile phone and a good network. It is totally altering the mode in which accountant carry out their jobs, to this end the accounting occupation is being differentiated in deference of cloud technology (Coopers, Mell & Grance 2011), which classify the accountants as one in the three groups:

Group 1: the once that are frightened by cloud and security anxieties and as such want to circumvent it. They play the 'Ostrich style' of burying their head in the sand, while the rest of it body is seen which is not wise.

Group 2: These ones believe and consent to cloud technology what they are interested in its impact on productivity. These accountants see accounts as a product enabling some clients to do the work themselves resultant in less work and lower profits.

Group 3: These groups are enthusiastic and the opportunities it affords the accountant. They see cloud as dramatically to improve their efficiency and profitability.

➤ *Appropriateness of Cloud Technology Accounting*

Cloud and old-style technology software benefits should be considered before purchased. Cloud accounting is suitable to users according to (Cong & Du 2010)

- Small budget company benefit more since it is cheaper with time to finance cloud accounting software than old-fashioned accounting software.
- Staffs who work remotely prefer opportuneness, user-friendliness cloud solution for their tasks.
- Minor companies, who do not have the capacity to provide themselves with security, can chose cloud computing to keep their information safer from security threats.
- Businesses want to dodge any possible physical misfortunes and damages or destroy to hard drives and data choose to utilize traditional accounting software.

➤ *Changes in Accounting Profession*

In the digitalized world, technology has amplified the rate and ways of doing business triggering new tendencies to fashion trades more speedily than ever. Cloud automation is pushing the business in new and exciting directions. Many accountants and bookkeepers have acknowledged this modification and are working hard to restructure and prepared future- ready professional accountants to meet the challenge of the business (Cloud Standards Customer Council 2015). Some of the changing trends from the accounting industries:

- Advisors on the value chain: these set of persons accepting the cloud can manage and control their time, they handled the task most accountants fear. This is so because they see it as a substitute for time saved in dealing with physical work, such as data entry of bills, pickup collection services, and hiring software services to do the work.
- Contract out accounting is growing rapidly: this is a common thing for businesses to buy from an outsider its accounting networks. The strategy is that businesses across the globe can sublet their cloud to firms centrally around the world (Aleem & Sprott 2012). No need to send a client's business premises and work in the office. Stages involve as to stuffed filing cabinets, piling up of paper, days spent going through a lots of receipts are now in the past.
- Relationship with client is at center stage: There is synergy in relationship between the advisor and the client based on a significant percentage of the contact of what papers are still wanted. What happen is that the consultant customer affiliations are moving to value-driven interactions. This is meaningful for clients as it will definitely change the perception of accountants and bookkeepers (Alshamaila, Papagiannidis & Li 2013).
- Value-based pricing is now a norm: Accounting and bookkeeping businesses are changing from hourly pricing to fixed, rather than value-based pricing. Charging based on hour made sense when hours of time-consuming data entry need to the attended to (Alshamaileh 2013). Software develop can replace job nowadays. Therefore, one does not have to dedicate such time anymore, as hourly pricing is not giving accountants the projected revenue.
- The idealistic generation is on the prospect: vendors have been working with a generation that did not grow up with technology. Therefore in this present generation, cloud technology is an essential part of their daily life. A research by Association of Chartered Certified Accountants, explored some important changes which are expected to be encountered by the year 2025 which is preparing future ready professional accountants concept (Cleary & Quinn 2016).

➤ *Applied Involvement*

Cloud accounting solution is seeing as a non-compulsory for accounting and financial reporting needs of today, however, it affords the opportunity to different platforms of reporting with electronic data bases. This technology has increase the correctness, efficacy and

consistency of the accounting procedures and processes (Shkurti et al 2014). Also, it aids the participants and interest holders in making better informed decisions as it repeatedly assured real time financial reports which is not so in many companies. Because of its user nature friendliness, it makes the accounting technology language easier to understand and used (Dimitriu et al 2014). Since the accountant plays a major key role in making available the right information and ensuring that the information gets to the target persons at the right time (Strauss et al 2015). Cloud based accounting is used to affect accounting exercise in several ways, this vital role helps to give insights by policy makers, regulatory bodies, educators, auditors and accountants. As it helps to give a greater understanding of how cloud accounting could influence the revenue recognition, fixed assets, tax management and performance management of companies (Johnson et al, 2013).

Cisco (2014) advises that the use of this contemporary technology will inevitably alter a company's operating environment and thus makes the auditors appraise the risks going with the changes easily and timeliness.

Christauskas & Miseviciene (2012) stated that the availability of evidence that the accounting department of every organization is a valuable advisor, why serving the public interest, it is worthwhile as the technology assists and develops the profession and the entire business landscape (Dimitriu et al 2014). There is no doubt that IT infrastructure plays a significant role in business for daily business information. Therefore, it is imperative for accounting professionals to understand the importance of cloud on business dealings (Buyya, Yeo & Venugopal 2008). Since all the financial operations are performed virtually in cloud based accounting, it has eradicated the necessity to hire an accountant or a bookkeeper (Dimitriu et al 2014).

Brandas, Megan & Didraga (2015) reaffirmed that accountants require being receptive and understanding of contemporary and upcoming digital technologies, in order to harness their potential benefits. Where a drastically, eventful, and experience progress is to be made in accounting, accountants must reason beyond the traditional method and give technology a chance (Dimitriu et al 2014). Chua (2013), Shkurti et al (2014) has further admitted that cloud computing is gaining ground in accounting since its introduction as a voluntary solution for accounting and financial reporting needs.

Asiaei & Rahim (2016) stated that many accounting packages providers have already accepted cloud computing technology in their different line of products delivery. To sustain this accounting professional, facilitator, software developers, should keep trainings and retaining on the newest technology. The profession firstly, should achieve the insight regarding these forces that has redesigned the direction of the organizations.

Secondly, accountants are to evaluate the effects of changes in relation to the entire accounting procedure. Thus, the impact of future change includes all accounting aspects,

from the role of accounting employees, through to the content of financial reporting and the reformation of tomorrow's ready accountant.

➤ *Empirical Review*

Livera (2019) study *Cloud Accounting: The perspective of accounting professionals of Sri Lanka*. Four specific objectives guided the study; the research design used was based on a positivistic paradigm. The Population and Sample size of the study is founded on Sri Lanka accountants in business numbering 100 to 150 respondents. The sample was selected on a random basis. A sample of accounting professionals was selected from the population making it 75 to 100 respondents. Data were analyzed with descriptive statistics tool. Findings are nearly half of the respondents agreed that presently they do not use cloud system (48.9%). 24.8% stick to the fact they use several times a day cloud accounting and 10.9% claimed that they use it several times a week (mean value of 2.86). This suggested that entire outcomes show that the consciousness about cloud accounting among the accounting professionals of Sri Lanka was somehow poor. The study concluded that more efforts should be made by stakeholders to create more awareness on the cloud accounting.

The research of Commerce Clearing House (2013) discovered that just about two third (64%) of SMEs would choose to replace specific roles accountants presently under take with a cloud accounting system. Over half (52%) of accountants study were troubled about losing work due to replacement of their services with that of cloud based services, with merely 3% extremely not concerned. Also, the rest half of SME owners or managers were in the view of looking for a new accountant if their existing accountant was unwilling to embrace and investigate cloud based accounting software.

Shkurti et al (2014) conducted a research of specialists in the discipline of accounting in Albania. Data gathered point out that 74.2% of the respondents are up-to-date about cloud technology, out of which 57.6% acquired this facts from the university based on courses taught, 7.5% of respondents say that they became aware of cloud accounting through professional trainings in organizations where they are employed. While, 34.9%, agree that they received theirs from other sources. Only 25.8% of respondents have answered that they have no information about this technology.

In the study of Ebenezer, et al (2014) where to ascertain the possibility of applying cloud computing for accounting purposes taking Ghanaian accountants as a case study. They found out that 64% knows cloud computing and its usefulness. 100% of the accountants believed that cloud computing can be used for accounting purposes. They expressed that caution should be the watch words since financial data are confidential. Fifty-two percent of accountants in Ghana familiar with cloud computing have confidence that cloud accounting would be different from the manual accounting. Forty-eight percent (48%) did not find any difference saying that accounting principles will not change but the practice would. Finally, 36% are not aware of

the cloud technology this is due to inability to distinguish between the natures of cloud accounting and computerized accounting.

In Malaysia, Tarmidi et al. (2014), indicates that one third of 329 respondents agreed that they are conversant with cloud computing. Also, are of the view that cloud computing is learned in higher level in school than PhD and masters holders. The respondents not acquainted with the technology claimed ignorance of its benefits, reasons for non-adoption. 20% less of the respondents who are used to cloud computing identified its abilities. Over half of the respondents agreed that it causes a radical shift in information advancement and this new concept will be advanced quickly in the future.

The survey conducted by Strauss, et al (2015) in United Kingdom reveals that 25% of the respondents use cloud technology for business systems and because of this proves that cloud technology has speared and assisted finance and management accounting operation. Their survey shown a pattern with non-finance systems being the frequently use of cloud technology with the breakdown of 31% from CRM, 19% of financial accounting and 59% of other business processes. Just under half or 49 percent of respondents said they are “still on the fence” or have no intention, to adopt the technology.

The survey conducted by Strauss, Kristandl et al. (2015), found that cloud technology is used by managers at all levels, although operational managers (71%) were more likely to use it than senior managers (29%).

The study of Shkurti and Muza (2014), supported other researcher that 57.6 percent of participants of the survey have obtained information about cloud technology from university learning in that regards and 7.5 percent from professional training and the rest from many other sources.

➤ *Hypotheses*

The subsequent null hypotheses were formulated;

H0₁: there is no significant relationship on the current level of awareness and acceptance of cloud accounting among accounting professionals firms in Nigeria

H0₂: there is no significant relationship on the importance of learning cloud accounting among accounting students in University of Benin

III. METHODOLOGY

This study used a survey research design approach to examine the current level of awareness and acceptance of cloud accounting among accounting professionals firms as well as the importance of learning cloud accounting among accounting students in University of Benin. The population for the study consists of 112 auditing firms in Edo State made up of managing partners, audit managers, tax managers, practitioner assistances, practitioner in-training, financial accountants, management accountants, and internal auditors and 146 final year students from department of accounting university of Benin. In determining the sample size for the study, the researchers used the judgmental sample techniques

to pick (28) twenty eight firms from Benin City and 73 students in accounting department. The total number of officers selected was 140 from the auditing firms; the researcher used the questionnaire to obtain primary data. The questionnaire was designed in a structured form and were randomly distributed made up of general questions of two research questions groups as follows; section (A) ten questions and section (B) seven questions to be measured via a 7-point Likert scale giving to the two hypotheses and was restricted that the responses be 1= Strongly Disagree 2= Quite Disagree 3= Slightly Disagree 4=Neutral 5= Slightly Agree 6= Quite Agree 7= Strongly Agree. From the 140 copies of (A) questionnaires distributed, 115 questionnaires were usable, representing 82.14% overall response rate. While, 73 copies of (B) questionnaires distributed, 65 questionnaires were good to be used, representing 89.04% overall response rate respectively. The 115 (A) questionnaires and 65 (B) questionnaires were processed, and the hypotheses formulated for the study were tested with F-test statistics using the (SPSS) version 20.0 software package. The SPSS, 5% is considered a normal significant level. F- test statistic was adopted to test the hypotheses formulated. The decision was that if F-value is equal or greater than the significant value, there is a significant interaction effect or significant difference, ie. F-value > significant value we reject Null and accept the alternative hypothesis.

IV. ESTIMATION RESULTS AND DISCUSSION OF FINDINGS

➤ *Data Analysis and results*

The data collected were analyses as reflected in the tables below

Table 1: Awareness and acceptance of cloud accounting

1= Strongly Disagree 2= Quite Disagree 3= Slightly Disagree 4=Neutral 5= Slightly Agree 6= Quite Agree 7= Strongly Agree	1	2	3	4	5	6	7
Improvement of my job performance rest on cloud accounting	2	6	10	0	14	38	45
Productivity in my job is a direct reflection of using cloud accounting	0	4	14	1	11	25	60
my effectiveness in my job depends on cloud accounting	2	3	9	1	15	65	40
Relevance of cloud accounting do not have any bearing on my job	66	39	2	1	1	2	4
Persons using cloud accounting are more prestigious compel to other that do not use it	1	3	8	0	16	41	46

People in my organization who use cloud accounting have a high profile	2	3	5	1	15	69	40
The cloud accounting system is a symbol of status in my firm	1	8	10	0	11	30	55
Accounting technology as a system protects the privacy of its users	0	4	14	1	17	25	53
self-reliant is a benefit when using cloud accounting because users have the system under control	4	3	5	0	12	45	46
confident is built as data returned by cloud accounting system is reliable	6	4	10	1	14	61	39

Table 2: learning cloud accounting in university

1= Strongly Disagree 2= Quite Disagree 3= Slightly Disagree 4=Neutral 5= Slightly Agree 6= Quite Agree 7= Strongly Agree	1	2	3	4	5	6	7
Teaching cloud accounting has help in my understanding of the course?	1	2	2	0	6	21	33
Reading text books, materials on cloud accounting are available for sales.	3	2	3	2	4	20	31
The course cloud accounting is very difficult compared with others courses	27	22	6	1	1	3	5
The lecturers teaching cloud accounting are not competent	30	19	8	0	1	3	14
The knowledge from cloud accounting help me in other accounting courses	2	3	2	1	5	22	29
Cloud accounting is an advanced information technology innovation	1	2	1	1	4	21	35
The introduction of cloud technology is an alternative answers for accounting and financial reporting wants.	2	3	2	0	3	24	30

➤ *Validity and Reliability Tests*

Cronbach's alpha test for the validity and reliability of data and in this study was 0.70 signifying that the data is valid, consistent and accepted for the study.

➤ *Test of hypotheses*

Hypothesis one (null) This hypothesis is verified with the data in table 1 using F- test statistics

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	Durbin-Watson
1	.968 ^a	.961	.714	1.535	2.900

a. Dependent Variable: AACAAP

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B
	B	Std. Error	Beta			
1	(Constant)	122.669	1.234	99.368	.000	113.641
	U	.430	.100	4.303	.023	.117

Source: Field survey 2022 (Using SPSS)

An independent sample t-test was run with SPSS to determine if there were significant differences between the variables. The P-P plot and homogeneity was slightly significant @ 2.900. Meaning that the responses was significant for U with t =4.303. While the R- square @ 0.961 is approximately 96% variance of AACAAP as accounted for by the model. On the other hand the F- value is statistically significant, indicating that there is significant relationship on the current level of awareness and acceptance of cloud accounting among accounting professionals firms in Nigeria.

Hypothesis two (null) The data in table 2 was relied on and applying F- test statistics.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.968 ^a	.653	.759	9.941	3.132

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	3588.267	1	3588.267	21.612	.002 ^b
Residual	492.590	5	98.518		
Total	4080.857	6			

Source: Field survey 2022

a. Dependent Variable: LCAASUB

An independent sample t-test was run to determine if there were significant difference between LCAASUB and predictor. The P-P plot and homogeneity was slightly violated @d = 3.132 meaning that the error is negatively correlated. The F-test as well as t-test is significant at 0.002 and 21.612. The predicator U has the strongest correlation (positive) with LCAASUB. Therefore, the null hypothesis is rejected to accept the alternative which says that there is significant relationship on the importance of learning cloud accounting among accounting students in University of Benin.

➤ Discussion of Findings

Based on the findings from the two hypotheses for the study, one will say that hypothesis one confirms a significant relationship on the current level of awareness and acceptance of cloud accounting among accounting professionals firms in Nigeria. This assertion is in agreement with the study by Strauss, Kristandl et al. in (2015), were cloud technology accounting is used by managers at all levels; Ebenezer, et al. (2014) says that 64% of Ghanaian accountants are conversant with cloud computing accounting. The aforementioned findings contradict that of Livera (2019) where almost half of the respondents (professional accountants) are not aware of cloud technology accounting.

Hypothesis two findings indicate a significant relationship on the importance of learning cloud accounting among accounting students in University of Benin. These findings concord with the study of Shkurti et al (2014), that participant are information about cloud technology in university studying the subject.

V. CONCLUSION AND RECOMMENDATIONS

The research concludes that with the more and more professional accountants becoming aware and uses cloud technologies, accounting activities would be quicker and more resourceful. This will grant the right of entry to factual and real time data resulting to increases in transparency, accountability and accuracy of financial reports through cloud platform (Dimitriu et al 2014). Also, by extension improve collaboration and communication among professionals in business (Chua, 2013), and security, reliability will remain a top concerns for management in adapting cloud technologies.

Further recommended is that firms should introduce strategies for adapting cloud technologies accounting and ensure training and retraining of professional accountants on the uses of cloud technologies accounting as this will enhance the knowledge in all their activities for effective and efficient performance delivery in financial information. It is further recommended that since cloud accounting is been taught in the university more effort should be made by educators to domicile cloud accounting in accounting curriculum in our higher institution as this will enhance the students' performance in their place of works as the business world and environment is now a computer village.

REFERENCES

- [1]. Abdullah, F. & Ward, R. (2015). Developing the general extended technology acceptance model for E-learning (GETAmel) by analyzing commonly used external factors', *Computers in Human Behavior*
- [2]. Abubakar, F.M. & Ahmad, H.B. (2013) 'The moderating effect of technology awareness on the relationship between UTAUT constructs and behavioral intention to use technology: a conceptual paper' *Australian Journal of Business and Management Research*, vol. 3, p. 14-23 Aleem, A. & Sprott, C.R. (2012). Let me in the cloud: analysis of the benefit and risk assessment of cloud platform. *Journal of Financial Crime*, Vol. 20, Iss 1, p. 6 – 24
- [3]. Alshamaila, Y. ,Papagiannidis, S. & Li, F. (2013). Cloud computing adoption by SMEs in the north east of England - a multi-perspective framework. *Journal of Enterprise Information Management*, Vol. 26(3), 250 – 275
- [4]. Alshamaileh, Y. (2013). An empirical investigation of factors affecting cloud computing adoption among SMEs in the north east of England. *Newcastle University Business School*.
- [5]. Asiaei, A. & Rahim, N. Z. A. (2016). Conceptualizing a model for cloud computing adoption by SMEs' *Bosoteanu, MC 2016, Cloud accounting in Romania, a literature review, University of Craiova, Romania*
- [6]. Brandas, C., Megan, O. & Didruga, O. (2015). Global perspective on accounting information systems: mobile and cloud approach, *Procedia Economics and Finance*, p. 88-93
- [7]. Buyya, R., Yeo, C. & Venugopal, S. (2008). Market-oriented cloud computing: Vision, hype, and reality for delivering it services as computing utilities, *10th IEEE International Conference on High Performance Computing and Communications, China 83*
- [8]. CCH, (2013), 'Cloud computing – a matter of survival for the accounting industry', A national survey research commissioned by CCH, p. 1-11
- [9]. Christauskas, C. & Miseviciene, R. (2012). Cloud computing based accounting for small to medium sized business. *Kaunas University of Technology, Lithuania*, p. 14-21
- [10]. Chua, F. (2013). Technological trends: their impact on the global accountancy profession', *The Association of Chartered Certified Accountants*
- [11]. Cisco. (2014). *Cisco Global Cloud Index: Forecast and Methodology, 2013–2018*. Retrieved from http://www.cisco.com/c/en/us/solutions/collateral/service-provider/global-cloud-indexgci/Cloud_Index_White_Paper.pdf
- [12]. Cleary, P. & Quinn, M. (2016) 'Intellectual capital and business performance: An exploratory study of the impact of cloud-based accounting and finance infrastructure', *Journal of Intellectual Capital*, Vol. 17 (2), 255-278

- [13]. Cloud Standards Customer Council. (2015). Security for Cloud Computing - Ten Steps to Ensure Success. Version 2.0. Retrieved from http://www.cloudcouncil.org/Security_for_Cloud_Computing_Version_2.pdf Claudiu, B.,
- [14]. Cong, Y. & Du, H. (2010) Cloud computing, accounting and beyond. The CPA Journal.
- [15]. Coopers, L.L.P., Mell, P. & Grance, T. (2011). The NIST definition of cloud computing. National Institute of Standards and Technology, US Department of Commerce, Special Publication, p. 800-145.
- [16]. Computer world. (2014). Computerworld Forecast Survey. Retrieved from http://resources.idgenterprise.com/original/AST-0133468_CW_2014_11_Forecast.pdf
- [17]. Dimitriu, O. & Matei, M. (2014). A new paradigm for accounting through cloud computing. Alexandru Ioan Cuza, University of Iasi, p. 840-846
- [18]. Dimitriu, O. & Matei, M. (2015) Cloud accounting: A new business model in a challenging context, *Procedia Economics and Finance*, 32, 665-671.
- [19]. Doherty, E, Carcary, M & Conway, G (2015). Migrating to the cloud examining the drivers and barriers to adoption of cloud computing by SMEs in Ireland: an exploratory study', *Journal of Small Business and Enterprise Development*, Vol. 22, (3), 512-527.
- [20]. Ebenezer, E.E.S., Omane-Antwi, K.B. & Kyei, M.E. (2014). Accounting in the cloud: how could computing can transform businesses (the Ghanaian perspective), *Proceedings of the second international conference on global business, economics, finance and social sciences*
- [21]. Ekufu, T. K. (2012). Predicting cloud computing technology adoption by organizations: an empirical integration of technology acceptance model and theory of planned behavior'
- [22]. Gao, S., Krogstie, J. & Siau, K. (2011). Developing an instrument to measure the adoption of mobile services. *Mobile Information Systems*, p. 45-67
- [23]. Gartner, R. (2014). Gartner Identifies the Top 10 Strategic Technology Trends for 2015. Retrieved from <http://www.gartner.com/newsroom/id/2867917>
- [24]. Giannakouris, K. & Smihily, M. (2014). Cloud computing - statistics on the use by enterprises. Eurostat. Retrieved from http://ec.europa.eu/eurostat/statisticsexplained/index.php/Cloud_computing_-_statistics_on_the_use_by_enterprises
- [25]. Hatherly, D. (2013). *The failure and the future of accounting – Strategy, stakeholders and business value*. Farnham, Surrey, England: Gower Publishing.
- [26]. IFAC, (2016). *Hand book of the Code of Ethics for Professional Accountants*
- [27]. Ionescu, B., Ionescu, I., Bendovschi, A. & Tudoran, L. (2013). Traditional accounting vs. cloud accounting. Bucharest Academy of Economic Studies. Msc unpublished thesis.
- [28]. Johnson, T., Berres, J., Salvar, M., Betson, C., Young, J. & Ha, K. (2013). *On the horizon – insights into the cloud for finance and accounting professionals*. Pricewaterhouse
- [29]. Livera, L. M. (2019) *Cloud Based Accounting: The Perspective of Accounting Professionals of Sri Lanka*. Unpublished Dissertation submitted to the University of Sri Jayewardenepura in partial fulfillment of the requirements for the degree of BSc. Accounting (Special) Degree Programme Department of Accounting Faculty of Management Studies and Commerce University of Sri Jayewardenepura Nugegoda
- [30]. Mohammadi, S. & Mohammadi, A. (2014). Effect of Cloud Computing in Accounting and Comparison with the Traditional Model, *Research Journal of Finance and Accounting*, 5(23), 104-114.
- [31]. Oliveria, T., Thomas, M. & Espandana, I. (2014). Assessing the determinants of cloud computing adoption: as analysis of the manufacturing and services sectors' *Information & Management*, p. 497-510
- [32]. Osintsev, A. (2013). *What Organizations Want in Accounting and Financial Software*. Technology Evaluation Centers - Market Survey Report. Retrieved from www.technologyevaluation.com
- [33]. Otilia, D. & Marian, M. (2015). Accounting in the cloud. *Managing intellectual capital and innovative for sustainable and inclusive society. Joint international conference 2015*.
- [34]. Ovidiu, M. & Otniel, D. (2013). Global perspectives on accounting information systems: mobile and cloud approach. *Procedia Economics and Finance*, vol. 20, p. 88-93
- [35]. Ozdemir, S. & Elitas, C. (2015). The risk of cloud computing in accounting field and the solution offers: the case of turkey. *Journal of Business Research Turk*, p. 43-59 85
- [36]. Shareef, M.A., Kumar, V., Kumar, U. & Hasin, A. A. (2009). Theory of planned behavior and reasoned action in predicting technology adoption behavior' p. 544-562
- [37]. Shkurti, R. & Muza, E. (2014). An analysis of cloud computing and its role in accounting industry in Albania. *Journal of Business Research* p. 97-102
- [38]. Strauss, E., Kristandl, G. & Quinn, M. (2015). The effects of cloud technology on management accounting and decision making. *Chartered Institute of Management Accountants*, ISSN number 1744-7308 (online)
- [39]. Tahmina, K. (2017). *Cloud Accounting: A Theoretical Overview*. *IOSR Journal of Business and Management Vol. 19(6) PP 31-38*
- [40]. Tarmidia, M., Rasidb, S. Z. A., Alrazia, B. & Ronic, R. A. (2014). Cloud computing awareness and adoption among accounting practitioners in Malaysia. *Procedia - social and Behavioral Sciences*, pp. 569-574
- [41]. Vaquero, L.M., Rodero-Merino, L., Caceres, J. & Lindner, M. (2009). A break in the clouds: towards a cloud definition Ozdemir. *ACM SIGCOMM Computer Communication Review*, vol. 39, p. 50-50
- [42]. Venkatesh, V. & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences*, vol. 39, p. 273-315

- [43]. Venkatesh, V. & Davis, F.D. (2000). A theoretical extension of the technology acceptance model: four longitudinal field studies. *Management Science*, vol. 46, p. 186-204
- [44]. Zhang, L. & Gu, W.(2013).The Simple Analysis of Impact on Financial Outsourcing Because of The Rising Of Cloud Accounting, *Asian Journal of Business and Management*, 5(1) , 140-143.