International Journal of Business Marketing and Management (IJBMM)
Volume 4 Issue 11 November 2019, P.P. 28-39
ISSN: 2456-4559
www.ijbmm.com

Digitizing and the Job of the Accountant: A Threat or a Companion?

Ogaluzor, Odinakachukwu Ifeanyichukwu
Rivers State University, Nkpolu Oroworukwo , Port Harcourt, Nigeria
08037542980

***Abstract**: Digitization is a burning issue in the business world today. The accountants are tasked to learn new skills in order to fit in to the new demands of their job. Existing accountants are afraid that they will lose their jobs. In the light of this, this research investigated the effect of digitization in the job of the accountant to establish if it was a threat or a companion to the accountant. A survey research method was used for the study. The study population consists of all practicing professional accountants who are designated Fellows in Port Harcourt District of The Institute of chartered accountants of Nigeria ICAN), with the unit of analysis set at individual level. Out of 489 estimated active fellows in the district, a sample size of 220 was established by employing Taro Yamane's formula. Data was collected using likert scale structured questionnaire. The technique used in analyzing the data collected for the study was parametric method. Analysis was done in three stages, namely univariate, bivariate and multivariate analyses. Tools for measuring central tendencies (mean) and dispersion (standard deviation) were mostly used in the univariate analysis while Pearson's Product Moment correlation coefficient was employed to determine the direction and degree of correlation in the bivariate analysis. The study hypotheses were tested in the multivariate analysis where the main statistical tool employed for testing the hypotheses is the multiple regression. Results from the data analysis revealed that, the job of the accountant is affected by digitization positively. It also revealed that, there is new challenge thrown at the accountant therefore need for retraining exists. We concluded that, digitization, rather than being a threat to the accountant is a companion instead but that to tap in to this advantage, the accountant must acquire the requisite training. We recommended that the accountants should prepare themselves to embrace digitization to retain their jobs and to fit into the digital world of business and that every business should digitize.*
***Keywords**: Digitization, Job of the Accountant, Threat, Companion, Software.*

I. Introduction

The saying that the world is a global village is made truer by digitization. Technology has grown so rapidly that it has affected every aspect of human life today. Nothing is left out. It has become practically near impossible for any activity to be done without it. The invention of electricity has given rise to some unimaginable development and has given impetus to far reaching inventions beyond the vision of those who invented it. The analogue era witnessed a less daring incursion into human activities than this digital era. Digitization is making man to doubt some natural laws that existed and even things that before now were thought to be impossible are made possible to the amazement of mankind.

The accountant in his accounting has evolved over the years from primitive period till now. Accounting has moved from manual accounting to this digital period or if you like digital accounting. Just as every other activity of the world, accounting has got its own share of interruption by technology. The pivot of accounting is numbers! The most affected aspect of digitization is numbers also. With this we should freely believe that the accounting profession will be affected greatly by this development.

Now the basic issue is whether this has done well for the accounting profession or has it threatened it? One thing is sure, every aspect of life has been made simple by technology; task that will take out human beings completely or take them hours to perform has been simplified through technology. The question is does it mean that it will reduce the number of people required to do them and thereby reducing gainful employment? Ericksen (2017), states that Technology has had a historical pattern of both ending and creating jobs. For instance railroads generated more prospects to sell goods to consumers a few hundred years ago. An entirely new set of office jobs that never existed before has been created today by the penetration of computers. He went further to say nevertheless, employees have been replaced by technologies also: self-check-out stations are used to displace Cashiers. Agricultural occupations have been decimated by farming technologies—80 percent of the

U.S. labour force in the 1800s, worked on farms, while today it's two percent. Wondering which jobs will follow. A study released by The University of Oxford outlined their predictions: Forty-seven percent of US jobs could be lost within 25 years due to advancements in technology. Could accounting be the next career to succumb to automation, AI or robots?

According to icrunchdata blog (2018), we are observing major deviations in the type of technologies obtainable for today's workers both managers and employee groups in respect to infrastructure, accessibility and volume. These elements have accumulated in four key technologies often referred as SMAC – Social, Mobile, Analytics and Cloud. Recently, investors of Venture capital have shifted towards big data and artificial intelligence which means combining these technologies. The impact of this revolution is accelerated by these investments.

Uber for car passenger transportation can be used as an example of digitization disrupting traditional industries; this is just the tip of the iceberg. Though the term artificial intelligence (AI) may have originated in the 1950s, the world neglected the potentials of AI. Only a number of researchers in Canada, for decades, continued to research in this space. Their continuing research has recently contributed to the rebirth of interest in artificial intelligence. It's no surprise that some of the relevant startups for professional services firms emerged out of Canada.

In Collins English Dictionary, Digitization, less commonly digitalization, is the process of converting information into a digital (i.e. computer-readable) format, in which the information is organized into bits. The product is the depiction of an object, image, sound, document or signal (commonly an analog signal) by creating a series of statistics that define a separate set of its points or samples. The outcome is termed digital representation or, more explicitly, a digital image, for the object, and digital form, for the signal. In modern practice, the digitized data is in the form of binary numbers, which enable computer processing and other operations, but, firmly speaking, digitizing is just the conversion of analog original material into a numerical format; the decimal or any other number system that can be used instead.

Digitization is of crucial importance, because it "allows information of all kinds in all formats to be carried with the same efficiency and also intermingled" to data processing, storage and transmission. Not like analog data, which normally experiences some loss of quality whenever it is copied or transmitted, digital data can, in theory, be propagated indefinitely with absolutely no degradation. This is why it is a favored way of preserving information for many organisations around the world (McQuail, 2000)

Having known this, our interest is whether this development is providing an alternative job for the accountant or it is taking away the job of the accountant. Can it take away the job of the accountant completely or is it creating more jobs for the accountant? Is it posing a challenge to the accountant to unlearn and relearn? Will such equip the accountant more or will it diminish his strength?

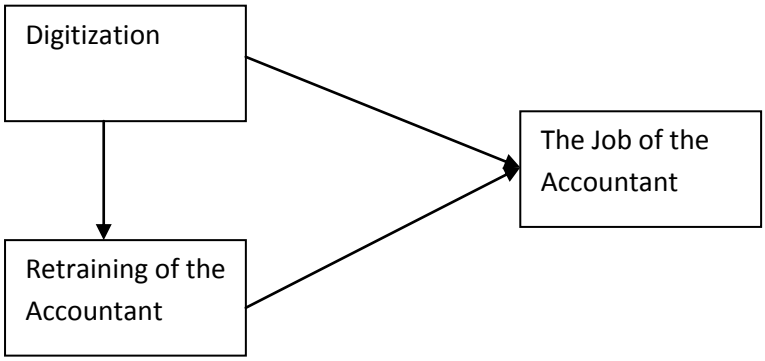
II. Statement Of The Problem

Digitization of the accounting process is a burning issue now in the accounting profession. Just in the last Institute of Chartered Accountants (ICAN) held in Abuja between 1st and 5th of October 2018, it was a topical issue. More than one resource persons among whom where Mr. Jim Ovia, the founder and CEO of Zenith bank, presented papers on it and it was also a workshop event in the conference. The argument whether it is a threat to the job of the accountant was inconclusive at the workshop. Again the experience of the researcher while working in Schlumberger was another driving force. The introduction of an accounting software sent cold shivers to the accountants of the company. In the light of this, this research is carried out to draw conclusion on the fears of the accountants concerning digitization. To inquire whether it is a threat or a companion to the job of the accountant?

Significance of the Study

- Contribute to the on-going debate whether digitization reduces the job of the accountants
- Highlights the need of the accountant's competencies.
- Add to the libraries to assist research works
- Set a direction for the modern accountants

Conceptual Framework



Source: Researchers Concept (2018)

III. Digitalization of the Accountant's job conceptualized

Objectives of the study

Several assertions exist concerning the digitization of the accountant job. While on the surface it appears that digitization will diminish the relevance of the accounting profession, it might mean something deeper than that. Therefore, the objective of this study is to:

1. Investigate whether digitization will reduce the job of the accountant and
2. To investigate whether retraining affects the job of the accountants in a digitized work environment.

Research Hypothesis

In other to study the above stated objectives, the following research hypotheses are postulated:

H01 Digitization does not significantly impact the job of the accountant

H02 The accountant does not require retraining to remain relevant in the light of digitization

IV. Literature Review

In the light of this we will draw from personal experience and theoretical and empirical studies to establish the effect of digitization on the job of the accountant.

Drawing from the researcher's personal experience as a former accountant of Schlumberger Anadril Nigeria Limited, there are quite a lot of gainful insights to infer from. Schlumberger is one of the world outstanding technological companies. Due to the level of precision required of them from their clients, their survival depends heavily on the accuracy of information given to their clients. Again their job is such that a single mistake will lead to catastrophe in terms of losing huge capital investment and workers' life. This of course endeared them to continually seek technological improvement to enable them deliver their services beyond the average satisfactory requirements of their clients in order to maintain their job and beat competition.

The accounting department was not left out of this. The company moves from one accounting software to another for ease of reporting both to the management and the external users of accounting information. The company at a time decided to invest billions of dollars on accounting software called "Lawson". This software was not only to handle accounting matters but was to interface with all operational issues including human resources and project management. There was this heavy rumour in the office that when this software is finally launched; that it is going to take over the job of the accountants and that many accountants will lose their job. There was fear all over the place as no one knows whose job will be taking away by the new package. As usual,

workers attitude changed and there was conspiracy here and there; people plotting against each other; everyone trying to supplant the other person. Information was being hoarded to prevent the establishment of the package.

The first shocker that came to everyone was when at least five people from the company in Nigeria were selected to travel to Europe to help the company installing the software to do their job and they were to stay for over a year. Removing five staff created shortage of staff and to be able to meet up with monthly report additional staff needed to be employed. Another shock was that the team implementing the software advised that to have an effective system, the present structure must be altered. This led to creating additional departments and offices which required more staff. It was suddenly obvious that the staff strength of the accounting department was not enough to handle the requirement of 'Lawson' package. The mood of every staff brightened and the attitude changed from fighting to keep our jobs to struggling to bring in our relations or friends to occupy the new position created by the Lawson package. Instead of taking away, new jobs were created.

Now this brought a new challenge to the accountant. The old ways of doing things was changed and some of the things we knew how to do very well were removed. We have to learn new skills especially the skill of manipulating the black box, the computer. All the accountants were retrained, there was no one left even the cleaners and the drivers in the accounting department were retrained to equip them for the implementation of the accounting department. The ones that their jobs were threatened were those who could not fit in or cope with the new software.

With this experience, can we say that the job of the accountant is threatened by digitization or it has come to become compatriot of the accountant?

We will also go to the books and researches to look into this question. According to Flew & Terry (2008) digitization is frequently used when different forms of information, such as an object, text, sound, image or voice, are changed into a one binary code. The basic of the procedure is the agree between the capturing device and the player device so that the result rendered is a representation the original source with the most possible reliability, and the benefit of digitization is the swiftness and exactness in which this kind of information can be communicated without degradation as compared to the analog information. Digital information exists as either one of two digits, either 0 or 1. These numbers are known and referred to as bits (a contraction of *binary digits*) and the sequences of 0s and 1s that make up information are referred to as bytes

V. How does digitization change the business world?

Kursawska (2018) identified five ways in which digitization is permeating into the business world and changing it systematically. In their views, unquestionably progress in Technological has made our lives better in all areas. The way we function, travel or even talk has changed. Again, the way we work has also been changed. This technological progress is linked to the digitization process.

i. Artificial Intelligence (AI)

The intense argument on the artificial intelligence in the last couple years has raged such that everyone finds a soft landing to support it for their organization. Some people (such as moviemakers) have rather dark predictions concerning the AI, in reality, it's quite the opposite. Research conducted by *BCG and MIT Sloan Management Review*: as cited by Kursawka (2018): shows that 75% of executives believe AI will support their companies to migrate into new areas of businesses. More than 80% believe Artificial Intelligent will lead their companies to obtaining or enduring a competitive advantage. Nevertheless, Artificial Intelligent has already transformed the business biosphere to such a magnitude, that corporations use it to automate their work and certain undertakings. Among them is carrying out data analysis, generating algorithms, or even improving the interactions between company and clients.

ii. Flexible Work

We owe big thanks to the digitization, choice can now be made on "how to work and when to work". We can easily convert and access data from anywhere due to all the data and information being stored on digital media and devices. What has made this possible, 'to adjust work schedule to our personal needs and lifestyle' is Technological progress and digitization. Many services being provided with the use of technological tools led to more and more companies relying on freelancers and remote

employees as they can render their services via internet and different platforms and sometimes much quicker than those working in the office (Kursawka, 2018).

iii. Innovation

Digitization is beyond about transferring data into the electronic system, it is also about using these effects and discovering new means of evolving them. There are so many fresh, inventive findings that now abound in the market. Digitization is possible to apply to almost every facet of the business world. Invention in technology aids firms to develop new ideas, reach a broader audience, organize and manage work using special tools. Above all, create a better product that satisfies customers makes them happy, and enhances their daily life (Kursawka, 2018).

iv. New Business Models

Through digitization it has become possible to create lots of new business models. But it does not end in that. Given all the available information online, business organisations can develop business models adjusted to match their own needs**.** New ideas can be applied to old strategies, resources be play with and in effect build something totally different, brand-new, and/or often innovative. This plays a big role in providing a flawless product that was not available before the digitization era (Kursawka, 2018).

v. Communication

Communication contributes a lot to human development. It is an important aspect of our lives, especially our work life. When communication is not effectively carried out, businesses cannot flourish and the right product cannot be developed. If information is not properly transferred, it breeds misunderstandings and conflicts. Fortunately, many tools and channels abound through which a corporate body can communicate with the employees and clients. Digitization has created various platforms enabling easy interchange of information, and even files, documents, etc. For example the social media and others such as: Skype, Slack, blogs, videos and even Facebook. Besides, so many different "tools" that enable communication and exchange of thoughts, such as blogs and websites, conferences, coaching sessions, or business meetings have been enabled. All that is possible thanks to the digitization (Kursawka, 2018)

From these five ways digitization is changing business world, one can comfortably infer that digitization rather than being harmful to the accountant is complementing the job of the accountant.

VI. The complicated relationship between technology and the workforce

The relationship between the workforce and technology is quite complicated. While in some cases jobs are lost in some other cases jobs are created. At least this is what it seems. But practically, what happens is that new ways of doing things are created. Even creating the automating machine is done by human beings. For instance without the help of an accountant, no accounting software can perform any accounting functions. There rules and standard to be followed which only a knowledgeable person can supply. The software developer cannot understand these rules and standard. Of course, most of them are not accountants.

We have over one million accountants practicing in Nigeria; losing this position to automation would deal a severe low on the entire workforce. The good thing is that the industry has already embraced different forms of Artificial Intelligence and automation. Smacc, a startup using AI to automate accounting, is achieving grip. The accounting software firm, Xero, is about to launch a machine-learning system to classify invoices, and more and more accounting firms are adopting Artificial Intelligence, at least in some capacity.

VII. What can be automated?

Artificial Intelligence has the ability to assist to make accounting easy by streamlining operations, saving time and money and raising efficiency. It is also collecting and processing data; learning how to put together different kinds of information using machine learning. Accounts payable and accounts receivable roles are becoming penetrated by Artificial Intelligence as a result of advancements in administrative capabilities of AI. Maybe accountants should not begin to worry. Artificial Intelligence accounting could be a blessing in after

all. With repetitive, simplistic tasks becoming automated, accountants could now be freer to confront more complex issues. E.g., data gathering could come to be automated, and then accountants will simply focus on the interpretation and implementation of the data. Activities such as Bank reconciliation, accounts payable and expense management will also come to be automated, agreeing with Accounting Web. More accounting tasks that has the ease to be taken over by computers include: Auditing expense submissions, invoice payments clearing, assessing risk, calculating analytics, categorizing invoices and more (Erickson, 2017).
This is a summary of what a disclosure management system needs to do, per Willis as reported in Hoffman (2018). An effective disclosure management implementation should enable many of the capabilities and process enhancements such as:

1. Automated spreadsheet assembly;
2. Automated report assembly;
3. Automated report validation;
4. Automated narrative text generation;
5. Contextual review process;
6. Automated xbrl reports;
7. Automated benchmarking;
8. Explicit references;
9. Collaborative review processes;
10. Virtual service center.

VIII. The Job of the Accountant

The accountant carries out financial duties of the company and is very important for the progress of the business. The task of identifying financial transaction, recording, measuring, analyzing and interpreting them is quite demanding in the business world of today. In Accounting Education website https://www.accountingedu.org/glossary.html Retrieved on 5th November 2018, it is stated that "Accounting has evolved from a pencil and paper ledger profession to one that uses the full extent of computer technology. In fact, there are in excess of 3,300 accounting software options available". The Institute of Chartered accountants of Nigeria defines accounting as the process of identifying, recording, measuring and communicating financial information to provide informed judgments and decisions to users of the information. To carry out these jobs the accountant need to vast in computer usage. The use of computer has affected the accountant's job immensely today. The accountant need to key in financial data into the computer system for analysis and interpretation.

IX. Empirical Review

In a research carried out by the Association of Certified Chartered Accountants (ACCA) Retrieved from https://www.accaglobal.com/content/dam/acca/global/PDF-technical/other-PDFs/drivers-for-change-5mins.pdf 1st November 2018 on Five minutes 100 drivers of variation for the universal accountancy profession, digitization was acknowledged as a change drivers in business amongst many. The results of a research on catalysts of change for worldwide business and the accountancy profession were given by this report. The research was ordered by ACCA's Accountancy Futures Academy while Fast Future Research carried it out. Extensive consultation with members of the ACCA Accountancy Futures Academy, and members of the Institute of Management Accountants (IMA) and the ACCA Global Forums were made. ACCA and IMA entered into a strategic partnership to back up research. In the findings, what global experts see as key drivers of change over the next decade and beyond were highlight. These motivators could make a serious impact on business activities, the accountancy profession and the global milieu in which accountants will work. This study started by addressing the question below: What are the key factors ACCA and IMA members should be thinking about to prepare for future opportunities and challenges over the next 5–10 years? Two-stage exercise was carried out. Initially series of discussions through telephone and email consultations were done with members of the ACCA Accountancy Futures Academy; this led to making up a list of 62 drivers of change. Those who contributed recognized what they saw to be key drivers of change that would outline serious business and policy circles and, as a consequence, the accountancy profession over the next 5–10 years. The 62 drivers identified were then referred to expert members of IMA, and ACCA's Global Forums, for evaluation, remark and identification of other drivers. Additional 38 drivers were identified at this stage and one of the drivers identified was Science and Technology. They stated that: The digitisation of business and everyday life are emphasized with emphasis on our increasing individual technology ecosystems, the simplicity of access to the internet and social media and their effect on devotion spans. For business, the impact of cloud computing, the valuation of digital assets, cybersecurity, and the rise of 'big data' and the value of data mining are all stressed. Attention is

drawn to the disrupting possibility of new trades and production prototypes, and improvements such as digital publishing, intelligent accounting systems, projecting analytics and augmented and virtual reality. Developing areas of science anticipated to have substantial business and marketable impact in the next ten years include genetics, personalized health care, brain science, robotics and nanotechnology.

Another study carried out by KPMG (2017) on Digitization in accounting: Study of the Status Quo in German Companies. The study investigated digitalization in accounting, the current situation and its developmental trends, digging into the responsibilities for implementation and any hindrances to the digitalization of accounting that may have already arisen. Building on this, a development level model was established which assigned companies to delineated-clusters and reveals the current status of digitization in their accounting systems.

The study design was in two-part. This involved expert interviews and an empirical online survey. A combination of detailed and illustrative insights was made possible in order to attain at a multi-faceted picture of the current situation and of the future developments in the area of digitalisation in accounting. As preliminary work for the online survey, from December 2016 to January 2017, semi-structured interviews were initially carried out by telephone and in person with ten numbers of Chief Accountants of firms domiciled or listed on the stock exchange in Germany. The interview sessions lasted between 55 minutes and 80 minutes for each person. The firms surveyed are separated, among other things, by size, stock exchange listing and industry.

These expert interviews were able to stream thorough perceptions and thus indicated a valuable source for, and support to, the outcomes of the online survey. Accounts from the professional interviews were incorporated into the appropriate places in the sequence of the study. These are principally used for the purposes of illustration.

From the beginning of March to April 2017, invitation was given to more than 1,700 corporations in Germany by e-mail to partake in the study using the online survey. The audience targeted for the online survey was the respective CFOs or Chief Accountants. 146 contributors of which 93% who were in a management position as the Chief Financial Officers or Chief Accountant of external accounting – fully completed the documents.

The samples used for this study were companies of various revenue volumes and industries, with those listed and not listed on the stock exchange. Companies that have up to 1,000 employees were sixty percent and formed the largest portion of the sample. 27 percent of the survey participants in addition represented companies hose employees numbered from 1,000 to 10,000. 11% of the firms have more than 10,000 employees. About twelve percent of the companies surveyed are capital market-oriented. The companies measured are in various industries. The taxonomy, in particular of big companies often engaged in numerous industries, is mainly based on the self-classification of the survey participants.

Analyzing the data of this study, the following key findings were provided. 1. The digital results in accounting so far fundamentally only cover the "basics" of digitization. 2. The eradication of media disruptions in the data flows brings about the utmost prospect for digital solutions in accounting. 3. Prior digitization projects were mainly directed at refining data quality and data consistency. 4. Future digitalization measures in accounting, for the most part, will corroborate with current processes. 5. The greatest obstacle to implementing digitalization in accounting is insufficiently optimized processes. And. 6. Digitalization in accounting is a management issue.

Hofman (2012) carried out a research on "Disclosure management: Streamlining the Last Mile". According to his findings: Information technology and software play an crucial part in increasing the competences of accountants and analysts, leading to improved efficiency of their processes and activity streams, this also drive savings in cost and time. Companies can invest substantial capitals in time and money to automate and streamline information processes through the use of data warehouses and consolidation applications. Pencil and paper were the general tools of the twentieth Century, but computers, electronic worksheets, and online applications triumph today. Yet, too often report assembly and review processes continue to remain largely manual.

Another work under our review is that of Bygren (2016) in her M. Sc. Theses presented to Stockholm University Sweden on "The digitalization impact on accounting firms business models" is presented as follows:

Since the rise of organized communities and societies, Technological uprisings have ensued for markets and industries. Technological revolution has been witnessed and still in process with the growth of digitalized markets in the past few years. This actually has led to a shift from analog business attaining digitalization. They

opined that digitization has become a steady structural change for industries and the Swedish economy is affected by it. This placed a demand on many industries to adjust to digitalized techniques, in order to stay cost effective and survive the shift in technology. Adjusting to a technical uprising puts burden on corporate strategies and requires businesses to formulate new models. With digitization, new necessities have come up for companies to fashion new business models, value chains and ways of unifying activities, in order to accomplish the business strategies. Digitization has been seen to alter innovation processes and some specialists trust it will change entire markets. The accounting industry is one of the industries that has been seen to have a high level of growth in digitalization and is anticipated to develop even more. Like many other industries, the accounting industry is, experiencing the necessity for a change due to digital technologies. Consequently, the study investigated how digital accounting businesses could formulate a general business model, such that their industry will be successfully digitalized. This was carried out through a multiple case study aimed at providing generalized findings of business model elements and barriers/facilitators for digitalization affecting the business model. The multiple case studies have been conducted through interviews with different accounting firms that market themselves as digitalized players.

The findings of the research indicate that digitalization had a direct affect on how companies should deliberately organize a business. Several of the implications on digitalized accounting will have straight influence on tactics, activities and processes. The digitalization will necessitate company cultures, which are digitalization friendly. Some of the results found are: digitization will provide accounting businesses digital accounting implements, knowledge sharing and communication channels. It will put force on staffs for having diverse knowledge than analogue businesses and more expertise skills. Digitalization is estimated to affect the offerings provided to customers. The digitalization is also most likely to have key partners, targeted customer segment, cost structure and income streams precise for being digitalized. Digitalization of the accounting industry is likely to adjust the market from being a supplier focused to becoming demand focused and new players with less accounting skill could get an opening for coming into the market. There are lots of obstacles and a few expediters for being a digitalized accounting business. This has been taken in consideration when charting a universal corporate model for a digital accounting company in this report (Bygren 2016)

The last empirical work we are going to review in this study is that carried out by Dauda, Ombugadu & Aku (2015). There research topic was "Threats and Challenges to Accounting Profession: A Draw Back to the Development of Accounting Practices in Nigeria"

In this study, the practice of accounting profession was examined in other to identify those threats and challenges which are obstacles to its development in Nigeria. Three hypotheses were proposed and tested to achieve this. Using a simple chi square as the statistical tool of analysis, it was easy to relate these threats and challenges to the advancement of the accounting profession in Nigeria. The opinions and insights of the chief players in the profession of accounting in Nigeria which comprises Academic Accountants, Professional Accountants and the Accounting Regulators were sought after. Data were collected were relevant to the study. The data were analyzed and from the analysis, results have shown that, accounting profession is truly faced with certain threats and challenges which right now affect its growth. In conclusion, it was determined that these threats and challenges could be an impediment on the prospect of accounting profession. They recommended that, as the academics and the professional accountants are called upon to be dedicated and preemptive as they tackle their different roles of theory generation, field practices and advancement of accounting knowledge, regulators should consider the etiquettes of objectivity and sincerity as they work out rules for the practice of accounting profession.

X. Methodology

A survey research method was used for the study. The study population consists of all practicing professional accountants who are designated fellows in Rivers State, with the unit of analysis set at individual level. The choice of limiting the population to fellow members of the professional body is borne out of the desire to have a credible opinion that is founded on practical experience. According to a personal interview that was granted by the District President of the Institute of Chartered Accountants of Nigeria (ICAN), there are estimated 489 active fellows in Rivers state district. By employing Taro Yamane's formula, a sample size of 220 was established. Accordingly, a systematic sampling technique was used to issue 220 copies of questionnaire, out of which 216 were retrieved. Two were discarded due to errors and ambiguity in their responses, effectively leaving 214 as the working sample size.

The analytical technique used in analyzing the data collected for the study was parametric method. Parametric method of analysis is considered over non-parametric method of analysis because of the quantitative nature of the entire research design.

Analysis was done in three stages, namely univariate, bivariate and multivariate analyses. Univariate analysis was carried out with the aim to present a descriptive statistics of the observation, while bivariate analysis was used to study the pair-wise relationships existing among the variables. Tools for measuring central tendencies (mean) and dispersion (standard deviation) were mostly used in the univariate analysis while Pearson's Product Moment correlation coefficient was employed to determine the direction and degree of correlation in the bivariate analysis. The study hypotheses were tested in the multivariate analysis where the main statistical tool employed for testing the hypotheses is the multiple regression. The model developed for testing the hypotheses is specified as follows:

$$JOB = \beta_0 + \beta_1 DIGIT + \beta_2 COMP + U \quad \text{---------- (Eq. 1)}$$

Where β_0 is the intercept of the regression equation, β_1 and β_2 are the slopes of DIGIT and COMP respectively. U is the error term, which is a stochastic random variable. The *a priori* expectation is to have both slopes to be positively signed at 5% significance level.

XI. Results

Univariate Analysis

Of the total number of responses which were utilized for the analysis, 133 (or 62%) ply their profession in the public practice while 81 (or 38%) ply their profession in the private practice. 117 (or 55%) are male while 97 (or 45%) are female. Majority (197 or 92%) obtained their FCA designation between 5 -15 years ago, while 189 (or 88%) have either obtained MBA/MSc of PhD degrees.

Table 4.1: Results Summary

Variables	Overall Score	Verdict	*Internal Consistency (Cronbach Alpha)*
Accountants' Job	3.621	Agree	0.9675
Digitization	4.027	Agree	0.9802
Acquired Training Level	4.588	Strongly Agree	0.9943

Source: Researchers computation

Based on the collective opinions of the respondents, the prevalence of the study's variables are upheld as presented in table 4.1.

For the dependent variable (i.e. Accountant's Job), an overall affirmative verdict[1] (a total score of 3.621 out of 5) was obtained with a standard deviation of 1.3, with respect to the overall perception of the accountants job as being more tasking in IT-based environment than in manual-based environment. The internal reliability of this score, as measured by Cronbach alpha is 0.9675, which clearly surpassed the acceptable threshold. Similarly for the independent variable, an overall affirmative verdict (a total score of 4.027 out of 5) was obtained with standard deviation of 1.1, with respect to the digital status of their respective employers. Again, a high internal reliability (Cronbach alpha of 0.9802) was achieved. In the same way for the control variable, an overall affirmative verdict (a total score of 4.588 out of 5) was obtained with standard deviation of 0.5, with respect to their overall competency level. Also, a high internal reliability (Cronbach alpha of 0.9802) was achieved.

XII. Bivariate Analysis

Analyses of the pair-wise relationship of the variables are made with a view to ascertaining the degree and direction of relationship existing among the variables of the study. The more the coefficient tends to unitary (i.e. one), the greater the degree of association. To ascertain the significance of relationship, a statistical significance threshold of 5% level is used. On the other hand, the direction of relationship is determined by the sign (i.e. negative or positive) which precedes the numerical value of the coefficient. A positive sign implicates

a direct relationship between the pair of variables under consideration while a negative sign implicates an indirect relationship. Results of the bivariate relationships are as presented in table 4.2.

Table 4.2: Correlation Matrix

		Digitization	Job of Accountant	Training Level
Digitization	*r*	1		
	t	--		
	p-value	--		
Job of Accountant	*r*	(+)0.86741	1	
	t	25.4	--	
	p-value	0.00000	--	
Training Level	*r*	(+)0.77671	(+)0.69707	1
	t	18.0	14.2	--
	p-value	0.00000	0.00000	--

Source: Researchers computation

According to Table 4.2, the correlation coefficient between job of accountant and digitization is 0.86741. Clearly this represents a significant degree of association as indicated by the probability value of 00000 which is clearly less than 5%, being the threshold level of significance. The direction of relationship as indicated by the sign of the coefficient is positive. The implication of this result is that, the greater the prevalence of business process digitization, the greater the accountant's job is likely to be more tasking in the industry. Put differently, accountants' job depend on business process digitization, to the extent that increased rapidity of business process digitization creates more relevance for the accounting profession, especially in the area of interpretation and volume of financial analysis. Digitization brings about business process efficiency and operational economies, which translate to higher volume of business. In the same light, decreases in business process digitization can bring about reduction in the relevance of accountants' job. Therefore regarding hypothesis H_{01}, which states: "digitization does not reduce the job of accountant", there is statistically justifiable reason to reject the hypothesis at 5% level of significance, and hence H_{01} is rejected.

Similarly according to Table 4.2, the correlation coefficient between job of accountant and professional competence is 0.69707. Also, this represents a significant degree of association as indicated by the probability value of 00000 which is clearly less than 5%, being the threshold level of significance. Equally, the direction of relationship is positive which implicates the propriety of training level (measured in term of professional competence) as a moderator of the relationship between the accountant's job and digitization. Therefore regarding hypothesis H_{02}, which states: "The accountant does not require retraining to remain relevant in the light of digitization", there is statistically justifiable reason to reject the hypothesis at 5% level of significance, and hence H_{02} is rejected.

In order to increase the validity of the conclusions obtained above, it is necessary to get a corroborative result from another tool of analysis. To this end, responses from the respondents were aggregated to construct cross-sectional data, with which a regression analysis was carried out. Tables 3 shows the result of the regression:

Table 3: Results of multivariate Analysis

Regression Statistics	
Multiple R	0.90000
R Square	0.80999
Adjusted R Square	0.80819
Standard Error	0.80927
Durbin-Watson Stat	1.6512
Observations	214

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	589.09	294.54	449.74	0.00000
Residual	211	138.19	0.65		
Total	213	727.28			

	Coefficients	*S. E*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	*-1.66*	*0.87*	*-1.90*	*0.05857*	*-3.39*	*0.06*
DIGIT	*0.83*	*0.05*	*15.15*	*0.00000*	*0.72*	*0.94*
COMP	*0.33*	*0.04*	*8.00*	*0.00000*	*0.25*	*0.41*

With a coefficient of determination (adjusted-R^2) of 0.80999, there appears to be a highly dependable relation between business process digitization and accountants' jobs. The standard error of 0.80927 indicates that the fitness of the model is good. This is confirmed by the F-statistic (449.74) and F-significance with a near-zero value. The model is stable and robust with mild signature of positive autocorrelation as indicated by the Durbin-Watson statistic of 1.65. It implies that about 81% variability of accountants' job dynamics can be explained by changes in the combined independent variables of business process digitization and the competency level of modern accountants in practices.

Both digitization and competency level turned out to be positively signed as expected, with p-values of near zeroes respectively. Therefore at 5% level of significance, the null of zero coefficients for both variables are rejected, thereby confirming their statistical significance and therefore corroborating the earlier results obtained in bivariate analysis.

XIII. Discussion of findings

The findings of this research are in line with the physical experience the researcher had which led to this work. Contrary to the fears of many accountants that their job will be lost because of digitization, a new task is created and therefore leads to increase in the demand for their services though in a digitized way. It is obvious from the findings that accountants need to become proficient in the digital system to be able to retain their jobs. The introduction of "Lawson software" in Schlumberger did not cut down the demand for the job of accountants but only required them to posses the skill for manipulation of the software. Digitization affects the job of the accountant positively. This corroborates the findings of Kursawka (2018), which assert that three-quarters of executives believe AI will enable their companies to move into new businesses. Almost 85% believe AI will allow their companies to obtain or sustain a competitive advantage. The more competitive advantage the company has the more their growth. Of course we know that as the company grows need for additional staff increases likewise increase in the need of accountants. The research carried out by the Association of Certified Chartered Accountants (ACCA) in November 2018 also confirmed that digitization is a positive driver of change in the business world, therefore it shows that the relationship between digitization and the accountant's job is positive. As digitization increases, the job of the accountant increases.

The second hypothesis which refers to the effect of retraining of the accountants to remain relevant in the light of digitization is also been tested and the result shows that it is very necessary for the accountant to be retrained in other to remain relevant in the light of digitization. In the Schlumberger experience, the accountant faced a more challenging work environment that required them to be retrained. This is in support of the research carried out by Bygren (2016). In one of the findings it was stated that, "digitization will put pressure on employees for having different knowledge than analogue businesses and more expertise skills. Digitalization it is estimated to affect the offerings provided to customers". Also in line with this, Dauda, Ombugadu & Aku (2015), recommend that, while the academics and the professional accountants are called upon to be committed and proactive as they handle their various functions of theory generation, field practices and advancement of accounting knowledge, regulators should consider objectivity and sincerity as they work out rules for the practice of accounting profession.

XIV. Conclusion

Based on this we conclude that digitisation rather than be a threat to the job of the accountant is a companion of the accountant. Digitization helps the accountant to do a more accurate and efficient report. Again it reduces the time the accountant spends manually to complete his task. We also state categorically that the accountant must have the requisite training to retain his job. Digitization becomes a threat for the unprepared accountant.

Recommendation

1. The accountants should prepare themselves to embrace digitization to retain their jobs and to fit into the digital world of business. This is the future of business and therefore must be embraced by all.
2. Institutions of learning should introduce digital scheme of work to reduce the level of retraining required by the accountants especially those joining the profession for the first time.
3. Firms should fully digitize their business operation to tap into the advantages of digitization.

Further Studies

It is obvious that using only FCA's in Port Harcourt district of the Institute of Chartered Accountants of Nigeria is not representative enough to generalize this finding effectively. We therefore, recommend that online survey should be carried out to cover the whole accountants in the country including members of other professional bodies in the country.

References

[1.] Arraou, P. (2015) The certified public accountant and the digital economy. Excerpt from the address delivered before Axelle Lemaire, State Secretary in charge of Digital Affairs, 70th Congress, Paris, 2 October 2015. http://ceccar.ro/ro/wp-content/uploads/2016/10/expert-comptable-economie-numerique_ENG.pdf

[2.] Bygren, K. (2016). The digitalization impact on accounting firms business models. Master of Science Thesis. KTH Industrial Engineering and Management SE-100 44 STOCKHOLM

[3.] Chiew, L. F. & & Yeong, L. H (2017). Why robots won't steal accountants' jobs. https://www.straitstimes.com/opinion/why-robots-wont-steal-accountants-jobs

[4.] Cokins, G. & Angel, S. (2018). The Disruptive Impact of the Digital Revolution on Accounting https://icrunchdata.com/blog/594/the-disruptive-impact-of-the-digital-revolution-on-accounting/

[5.] Dauda, I. A., Ombugadu, B. A. & Aku, S. U. (2015). Threats and Challenges to Accounting Profession: A Draw Back to the Development of Accounting Practices in Nigeria. International Journal of Academic Research in Accounting, Finance and Management Sciences 5(4) 96-104

[6.] Erickson, K. (2017). Could Artificial Intelligence Threaten Accounting Jobs? Experts Weigh In https://www.rasmussen.edu/degrees/business/blog/artificial-intelligence-accounting-jobs/

[7.] Flew, T. (2008). New Media: An Introduction. South Melbourne. 3rd Edition. South Melbourne: Oxford University Press

[8.] Hoffman, C. (2018). Getting Ready for the Digital Age of Accounting, Reporting and Auditing: a Guide for Professional Accountants. http://xbrlsite.azurewebsites.net/2017/Library/GettingReadyForTheDigitalAgeOfAccounting.pdf

[9.] ICAN (2009). Partfinder, November 2009 examination: Question papers, suggested solution and examiners' report.

[10.] Kreher, M., Sellhorn, T. & Hess, T. (2017) Digitilization in accounting: Study of the Status Quo in German Companies. https://home.kpmg.com/content/dam/kpmg/de/pdf/Themen/2017/digitalisation-in-accounting-en-2017-KPMG.pdf

[11.] Kursawska, K. (2018) 5 Ways in Which Digitization Is Changing Business World. Timecamp.com.https://www.timecamp.com/blog/2018/02/5-ways-digitization-is-changing-business-world/

[12.] McQuail, D (2000) McQuail's Mass Communication Theory (4th edition), Sage, London, 16-34

[13.] Nagarajah, E. (2016) Hi Robot: What does automation mean for the accounting profession? https://www.pwc.com/my/en/assets/press/1608-accountants-today-automation-impact-on-accounting-profession.pdf

[14.] The Association of Chartered Certified Accountants (2012). 100 drivers of change for the global accountancy profession. https://www.accaglobal.com/content/dam/acca/global/PDF-technical/other-PDFs/drivers-for-change-5mins.pdf

[15.] Willis, M (2012). Disclosure Management: Streamlining the Last Mile.

[16.] https://www.pwc.com/gx/en/xbrl/pdf/pwc-streamlining-last-mile-report.pdf