

Effect of Cloud-Based Accounting On Manufacturing Firms in Nigeria A study of Twinstar Industries Ltd., Ogun State

*¹Obasan, Olabowale Taiwo ²Kuola, Aanu Joseph

¹Department of Accountancy
Abraham Adesanya Polytechnic,
Ijebu-Igbo, Ogun State, Nigeria.

*Pemisire0703@gmail.com

+2348034411824

²Internal Audit Department
Abraham Adesanya Polytechnic,
Ijebu-Igbo, Ogun State, Nigeria.

Abstract

The study examined the effect of Cloud-Based Accounting on Manufacturing firms in Nigeria, a study of Twinstar Industries Ltd., Ogun State. The aim of the study is to ascertain the effect of Cloud-Based Accounting on manufacturing firm policies and operations and to examine the effect of Information Technology on the performance of Manufacturing firms in Nigeria. The survey was conducted in a manufacturing firm in Ogun state, Nigeria with an approximate total of 261 staff. A total of 261 questionnaires were distributed to the staff of Twinstar Industries Limited, Ogun state. Two-hundred and twenty-nine were retrieved representing 87.7% response rate. The dataset was analyzed using the Analysis of Variance statistics. The study concluded that immediate information access helps to get a clear picture of how your business is doing, and also to prepare for the market's future demands. It showed that Cloud-Based Accounting has significant impact on manufacturing firm policies and operations. It was recommended that there should be insights into the policymakers to better understand and enable them to implement suitable strategies to minimise potential damaging factors and improve current trends in their development.

Keywords: Cloud, Cloud Accounting, Productivity Improvement, Firm Policies and Operations

Introduction

Nigeria being a giant of Africa, blessed with numerous natural resources has industries dealing with different kinds of manufactured products. Manufacturing industries are businesses that use raw materials, parts, and components to assemble finished goods. Manufacturing industries are those that engage in the transformation of goods, materials or substances into new products. The transformational process can be physical, chemical or mechanical. Manufacturers often have plants, mills or factories that produce goods for public consumption (Walter, 2018). Productivity improvement has a crucial role in raising GDP per capita. Firms adapting and using IT can improve the production process and labour productivity. IT is a key driver of productivity and pioneer to accelerate the industry in economic growth. ICT is a General-Purpose Technology (GPT) that has a wide range of effects throughout the entire economy, reshaping the whole systems of production and distribution (the information technology and innovation foundation, 2014).

IT diffuses throughout the economy; they engender extensive spillovers in the forms of externalities and technological complementarities, and their evolution and diffusion span for decades (the information technology and innovation foundation, 2014). Moreover, GPTs undergo rapid price declines and performance improvements and become pervasive as an integral part of most industries, products and functions. They enable downstream innovations in products, processes, business models and business organization (Satapathy and Mishra 2013).

Cloud computing is a new model of computation that can bring significant benefits to consumers, businesses and government, creating new threats and challenges. "In the cloud" data processing came to be called a model of the IT systems in which the server installation location does not matter. "Cloud computing" model can be simply defined as the storage, processing and use of data to be accessed over the Internet, on a different location computer. This means that users can request to have almost unlimited computing power that do not require significant capital investment in order to meet their needs and that they can access their data from any location

where they are connected to the Internet (Elzbieta & Dorota, 2015).

A firm is as good as the structure of the fundamentals of its environment. The effect of the manufacturing sector as the key driver for important economic growth cannot be over emphasized. This relationship is characterized by the fact that a group of sound firms will build-up a healthy economy. Therefore, the management of an organization must make a concerted effort in the emergence, and continuous improvement in the firm policies and operations in order to improve the financial performance of their firm (Abidde, 2021).

The Internet is the basis for the whole economy in a growing part of the world. ICT contributed to 40% of overall productivity growth in the economy in 1994-2004. The network effect enables acceleration and global diffusion of innovation. Subsequent changes in the economy, as well as in the lives of the citizens were remarkable. The variety and multitude of applications and business models supported by the Internet also largely affects its nature and structure (Internet traffic increases by 60% per year). We could say that the Internet infrastructure has become mature and exhausted its innovation and growth potential. We are at the beginning of a new phase of the Internet, which will drive innovation and growth. However, you have to think about what to do to unleash this potential, which is even more necessary in times of economic downturn. To get out of the economic crisis, we need to encourage stable and sustainable growth of business in the goods and services that respond to the real needs of the market with high value. Europe needs to make full use of the economic potential of a single market, which is still locked in fragmented national markets. Internet-based services should be used primarily, because their nature has a cross-border dimension (Reding, 2009).

Accounting information is very important for the planning, controlling and making of both short and long term decisions in manufacturing companies. For smaller companies, traditional method is used effectively at a high cost. But this is not the case for larger companies with large information base, encumbering the accounting system. Cloud computer based accounting has been a very useful tool in this regard, enabling performance appraisal of listed

Effect of Cloud-Based Accounting On Manufacturing Firms in Nigeria A study of Twinstar Industries Ltd., Ogun State

manufacturing companies, so as to increase stakeholder's confidence in the organization and encourage them in investing more in the organization. In order for an organization to appraise

its performance, it needs some important information that must be timely, accurate and useful to the users. The information must allow for quick comparison between current and previous years' data, offer financial statement for use by both managers and stakeholders etc. Hence, the need for cloud based accounting system to enhance accuracy, speed and cost minimization which will ultimately lead to profit maximization (Abidde, 2021).

Accounting having advanced reliably over the previous decades, with each new expansion and development making it shockingly better and testing while at the same time giving fulfilment and accommodation to the users, current accounting has arrived at the current stage in the wake of experiencing slow changes throughout the years; by staying up with the quick developing innovative headways (Owolabi & Izang, 2020). Therefore, the study focuses on effect of Cloud-based accounting on manufacturing firms in Nigeria.

Statement of the Problem

Lately, powerless inside control and fake exercises among others that are obvious inside organizations has prompted a temperamental accounting related detailing proclamation to its clients. Accounting information quality in Nigeria stays powerless contrasted with many propelled locales. This brought about hampering of the development of effective value markets. A typical grievance among speculators in Nigeria is that financial information on organization execution is either inaccessible or, whenever gave, needs dependability (Shehu, 2011). The Nigerian settings as far as accounting announcing characteristics, structure, and corporate administration are relied upon to appear as something else and better as far as headway and consistence (Shehu and Ahmad, 2013).

Past studies carried out have recommended cloud accounting as one of the ways for curbing such irregularities in the accounting system. Perminov and Egorova (2005) have found that the growth rates in ICT-producing and ICT-using industries are much higher than non-ICT

industries in Russia, though an essential delay of ICT spreading still takes place in Russia compared with developed countries. Some studies have focused on the intensity of using IT in industries. They believe that the impact of IT is related to its intensity in industries, so that the productivity growth is higher in industries using IT than the other industries. These trending technologies are being used by large scale enterprises. This study seeks to investigate effects of cloud-based accounting on manufacturing firms in Nigeria.

The following are the objective aimed to achieve at the end of this study;

1. To ascertain the effects of Cloud-Based Accounting on manufacturing firm policies and operations.
2. To examine the effects of Information Technology on the performance of Manufacturing firms in Nigeria.

The following are the research questions to be answered at the end of this study;

1. To what extent does Cloud-Based Accounting impact manufacturing firm policies and operations?
2. What is the relationship between Information Technology and the performance of manufacturing firms in Nigeria?

The tentative statements formulated to be tested in the course of this study are stated below;

H0₁: Cloud-Based Accounting does not impact manufacturing firm policies and operations.

H0₂: There is no relationship between Information Technology and the performance of manufacturing firms in Nigeria.

2.0 REVIEW OF RELATED LITERATURE

Conceptual Review

Concepts of Cloud Based Accounting

António, Fernando & Raquel (2016) "reflected on the role of Business Process Management and associated technologies on supporting/evolving current Accounting Information Systems. Although traditional Accounting Information Systems fulfil the need for financial reporting, collecting data from central databases and consolidating it, so that the information can be easily consumed by decision makers, they were not created bearing in mind the idea of performing business process-oriented accounting". "Organizations have always worked in a business process-

oriented way either implicit or explicit. Business Process Management adoption as a management practice has been gaining popularity in recent years, making sense evolution of Accounting Information Systems towards a business process-oriented accounting supported on a Business Process Management Suite”, (António, Fernando, & Raquel, 2016). Still in their submission, “the benefits of this evolution include, among others, the flexibility and agility in business process redefinition, the empowerment of knowledge workers, the implementation of control points for data collection to produce real-time reports and alerts relating the use of financial and non-financial information, so that decision-makers can act on”, (António, Fernando, & Raquel, 2016).

Buttelt (2010) sees “cloud computing as a means of “moving your computer applications and programs from the office desktop to the internet”.

Khanom, (2017) reviewed a theoretical perspective of cloud “practice of accounting to have been improved significantly by the emergence of accounting software using the cloud technology, which is one of the tremendous IT innovations over the last decade”. He sees that “today the ever-changing business world is becoming more and more competitive and sophisticated with the advancement of cloud technology. Like other sectors of business, accounting has also embraced cloud computing solutions in order to provide relevant and particular information as

well as a real-time overview of business for all stakeholders”. To him, “although cloud accounting is becoming more and more common day-by-day, many business owners and professionals are not quite sure about what it is, what its benefits are or how it will shape future accounting”, (Khanom, 2017).

Accountants will be more focused on benefits such as data protection, privacy and reliability of data, when using cloud accounting. There have been doubts about using cloud computing for accounting as a repository of critical data in an organization as depicted by Gill (2011). Still cloud-based accounting has been always supported as an enhancement to information flow within an organization.

Concept of Cloud

There is not a unified definition of cloud computing until now, as it is a metaphor for the internet. In the cloud computing all the resources are arranged together in the cloud storage center, where users can enjoy unlimited resources and computing power as long as they use a terminal to attach the internet. The concept of ‘cloud accounting’ was first put forward by Ping and Xuefeng (2011). Cloud accounting has been defined by them as the utilization of cloud computing in internet to build a virtual accounting information system, i.e.; cloud computing plus accounting equals cloud accounting.[Zhang and Gu, 2013]

All cloud services are provided “as a service” and are offered in three forms- SaaS, PaaS and IaaS(Fig.2).

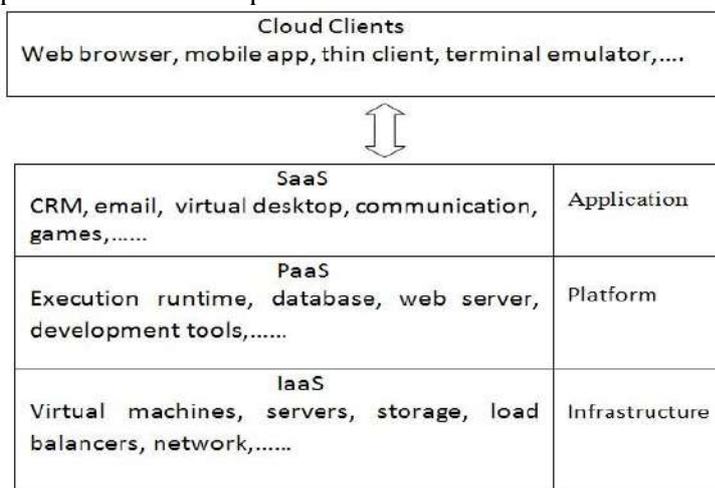


Figure 1: presentation of cloud services types

Effect of Cloud-Based Accounting On Manufacturing Firms in Nigeria A study of Twinstar Industries Ltd., Ogun State

SaaS (Software as-a-Service): The software deployment model, which is the highest form of services that deliver special purpose software to the consumer to use the provider's applications running on a cloud infrastructure through the internet is referred to as Software as-a-Service. It is sometimes referred to as "ondemand software" and is usually priced on a pay-per-use basis. This eliminates the need to install and run the application on the cloud user's own computers, which simplifies maintenance and support. SaaS providers generally price applications using a subscription fee. The main drawback of SaaS is that the users' data are stored on the cloud provider's server.

PaaS (Platform as-a-service): The software deployment model whereby a computing platform is provided as an on-demand service upon which applications can be developed and deployed is referred to as platform as-a-service. It is built on the top of IaaS and joins with software as a service (SaaS) and infrastructure as a service (IaaS), where application developers can develop and run their software solutions on a cloud platform without the cost and complexity of buying and managing the underlying hardware and software layers.

IaaS (Infrastructure as-a-Service): The software deployment model where the basic computing infrastructure of server, software, and network equipment's are provided as an on-demand service upon which a platform can be developed and execution of applications can be established is referred to as Infrastructure as-a-Service. Its main purpose is to avoid purchasing, housing, and managing the basic hardware and software infrastructure components, and instead obtain those resources as virtualized objects controllable via a service interface.

There are four types of deployment models of cloud technology

Private Cloud: The cloud infrastructure that is managed and operated for one organization only, so that a consistent level of control over security, privacy, and governance can be maintained is called private cloud. It is also known as Internal Cloud or on-premises Cloud. It may be managed by the organization or a third party and may exist on premise or off premise.

Public Cloud: The cloud infrastructure that is made available to the general public or a large

industry group and is owned by an organization selling cloud services is called public cloud. It is also known as external cloud or multitenant cloud.

Community Cloud: The infrastructure which is referred to as special purpose cloud computing environments shared and managed by a number of related organizations participating in a common domain or vertical market is called community cloud. It may be managed by the organizations or a third party and may exist on premise or off premise.

Hybrid Cloud: The cloud infrastructures that is composition of two or more distinct cloud infrastructure (private, community or public) but are bound together by standardized technology that enable data and application portability is called hybrid cloud. It provides benefits of multiple deployment (Mohammadi and Mohammadi, 2014).

Reasons For Using Cloud Services

There are a number of reasons that influence a company to use cloud services. These are:

1. **Maintaining Focus on the Business:** Businesses are realizing that running an IT department is not their core competency, they are better lawyers, doctors or plumbers. Buying cloud services, either in the form of a single application or their entire data center is often more cost effective, more reliable and lets them reallocate their limited resources to growing their business.
2. **Business Agility:** Businesses with significant technology investments can find themselves unable to take advantage of shifts in the market or respond to competitive pressures because the capital, people or time are not available in the measure needed to react. Cloud services remove these barriers, allowing businesses to continually adapt their technology needs to their business without the costs that would normally have to be considered with an onsite datacenter.
3. **Reduced Capital Expenditures:** Large capital investments can be minimized or eliminated altogether in favor of small monthly payments. Capital can be protected as keeping capital and operational expenses to a minimum can be very important to small and medium businesses alike.
4. **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.

5. **Access from Anywhere:** Being able to do business without borders is one of the major benefits of cloud services. Access to the applications and data is available to authorized users anywhere there is Internet access.
6. **Staffing Efficiency:** Cloud services can help maintain an efficient technology staff, outsourcing key technical specializations or technology staff as it makes sense for the business.

Importance Of Cloud Technology In Accounting

Cloud accounting can be advantageous in many ways in today's business world, which may be summarized as:

Less costs

One of the first areas where cloud accounting outscored traditional accounting is the cost. With a cloud-based system, businesses do not make a lump-sum purchase of a program, or buy and set up a server to host it. This minimizes IT professional fees and helps to avoid installation fees altogether. As accounting rules and tax regulations change, one won't have to purchase and install updates. Instead, the monthly or annual subscription cost includes the updating cost, and these are completed by the provider as needed [paychex.com, May 05, 2017].

Real-Time Information Updating

One of the common problems with traditional accounting systems involved updating accounting information. When one figure needed to be changed, it meant manually recording the change in each location where the figure appeared, including forms, ledgers, and other documents. With cloud accounting, when new data is entered, it populates each location where it is required. This saves time, money, and potential headaches that could arise if any locations are missed [paychex.com, May 05, 2017].

24/7 Accessibility to All Accounting Information

With traditional accounting, access to the business's detailed financial information was limited by when the accounting professional was available, or when one could get to the

office to review the paper-based records or even the desktop computer holding the information. Cloud computing outweighs conventional method in this regard. As long as one has internet access, his/her accounting records are as close as the mobile device. [paychex.com, May 05, 2017]

Security of Financial Information

Cloud accounting is also important, because it keeps all financial information secured. A person may think- by storing on one desktop, will keep the data safe, but this is likely to cause problems in the long run.

Team-Wide Availability

Cloud accounting benefits entire business teams because the data is available to all authorized users at all times. It is easily scalable. Adding new users is simple—just by setting up an authorized profile and password. Even better, it makes collaboration easier.

Immediate Fixes

During the previous paper-based systems, if there were any problems with the program, users were required to wait patiently for the next version for the bugs to be fixed. Among the benefits of cloud accounting, fixing software issues immediately is among the most important.

Allows for Better Cost Efficiency in the Workplace

No matter how professional or efficient a business is, there is always room for improvement. Whether seeking ways to better stay in touch with the customers, or trying to keep the business more secure, cloud accounting helps with some of the drawbacks that come with owning a business. For example, many business tools have to be paid for in full. One of the best things about cloud accounting, however, is that one can enjoy the benefit of 'pay as you go'. A monthly plan can even be set up, and it is a great way to compensate if someone on a tight budget.

Automatic Data Back Up and Restoration

Another area where cloud accounting trumps traditional accounting is when it comes to automatic data back up and restoration. It was not that long ago that daily, weekly, and/or monthly data backup had to be scheduled into the workweek. And then someone had to manually backup the recent accounting information. Cloud accounting allows

automatic data backup, removing the possibility of forgetting to do it, and reducing the opportunity to make human errors. Instead, accounting information is backed up automatically and saved to an offsite location. This helps secure the information in the event of a break-in, fire, or other incident that could put sensitive and important information at risk. And should the business experience one of these incidences, the cloud-based service provider can help to restore the data, getting the business back up and running quickly to minimize the impact and inconvenience to the customers.

Positivity of Cloud-Based Accounting on Manufacturing Firms

According to Abdullah (2017) who reviewed the theoretical literature that talked about cloud computing, information technology, accounting information systems and how it affects business organizations, it has been confirmed that cloud based accounting has multiple effects which are presented as follows:

a) Accounting Entity

The meaning of accounting unit is that the entity has its own personality dependent from its owners. Cloud accounting means they are dealing with an entity with its own rules and not with individuals. The cloud system helps accomplishing a variety of jobs including accounting, management, and helps employees and stakeholders access to applications through computers and cellular devices (Lobana, 2013).

b) Financial Transactions

These operations are reflected for all activities of internal and external events of the entity of a financial nature. As shown in Lobana (2013), cloud based accounting will enable the organization to provide service in a timely manner.

c) Financial Documents

By definition of (Kassem, 2012), the financial documents are documents that contain a set of basic and important financial data of the registration process of accounting. The overall objective of the document is to contain important data which can be dispensed in cloud computing because it ensures self-service to the customer. This means that the customer can ask for what they want as products through resources provided by cloud computing over

the internet by using the established system applications.

These applications are stored within the cloud (Office of the Privacy Commissioner of Canada, *d) Accounting Books*

They are used regularly as e-accounting books, for example, to record all daily operations of the facility (Jordanian Trade Act, 1966, Article 16). This means that the financial statements of these transactions in the form of accounting entries associated with the accounts are affected by the financial process recording. The use of cloud computing is similar to an electronic system that dispenses accounting books because cloud computing applications provided by Software as a Services (SAAS) (Mell and Grance, 2011) that allows the registration of all financial data entry bonds and bills of exchange and capture other applications that allow perform specific functions or processes (Chan et. al, 2012).

e) Financial Reporting

The final product is the financial reporting system of accounting information and these reports are the means by which information is communicated to users. It has been shown by Ebenezer et. al. (2014) that cloud computing can still be applied successfully for accounting purposes.

f) Procedures

The actions of all the steps involved in the conduct of the transactions and processing of financial operations and reporting of the data (Abdullah et al., 1990). Thus, the customer can see the products offered through the provision of special applications from which to choose the products they want and submit sales orders.

g) Users

Kassem (2012) explains that they are the ones who are dialoguing with the system through terminals by Application Software. According to Lobana (2013) cloud based accounting allows employees such as accountants Connects to the central information-sharing resources throughout the facility.

h) Software and hardware or physical components

It was stated formerly that the software are all the programs that enable an individual to use the computer to perform multiple tasks and accomplish a given work. (Laberta, 2011). And that physical devices or hardware are all the

physical components of the computer and its related devices. (Laberta, 2011).

Theoretical Review

System theory

System theory expresses that organizations ought to be treated as an open framework that changes contributions to yields inside the conditions (outside and interior) whereupon they are reliant (Miller and Rice 1967). System theory is the premise of the info procedure yield result model of overseeing execution, which evaluates the whole commitment that an individual makes inside the framework in doing their assigned activities, not simply the yields. Data sources contain the skills and information that an individual brings to a vocation. Aptitudes and information are estimated to survey improvement and adapting needs of workers. This theory will be adopted in this work because organization relies upon the globe for its data sources, yet for the acknowledgment of yields. Thusly, they should create implies for adapting to natural requests. Basically, there is no way a company will survive without its interaction with its internal and external environment especially when it comes to adopting new technologies like cloud accounting.

Innovation Diffusion Theory

Innovation Diffusion Theory's primary intention is to provide an account of the manner in which any technological innovation moves from the stage of invention to widespread use (or not). Though not concerned with information technology exclusively, diffusion theory offers a conceptual framework for discussing acceptance at a global level. Diffusion theory speculates five characteristics of innovations that affect their diffusion: relative advantage (the extent to which a technology offers improvements over currently available tools), compatibility (its consistency with social practices and norms among its users), complexity (its ease of use or learning), trialability (the opportunity to try an innovation before committing to use it), and observability (the extent to which the technology's outputs and its gains are clear to see). Each of these characteristics on its own is insufficient to predict either the extent or the rate of diffusion, but studies have demonstrated that innovations

giving advantages like compatibility with existing practices and beliefs, low complexity, potential trialability, and observability, will be more extensively and rapidly diffused than an innovation with the cluster of opposite characteristics (Dillon & Morris, 1996). Innovation diffusion theory suggests that factors at the level of the individual user are also important. Early studies have divided technology or innovation adopters into five categories depending on their speed of uptake: innovators, early adopters, early majority, late majority, and laggards (cited in Dillon & Morris, 1996).

Empirical Review

Mugenyi (2018) explored on the reception of Cloud Computing Services by Commercial Banks in Uganda for Sustainable Development. The investigation found that business banks in Uganda are consistently expanding in number of branches, sizes and operational exercises over the most recent two decades. This augmentation has pulled in high operational costs identified with buy and upkeep of IT framework and in any event, requiring bigger spaces to oblige them, which is constantly joined by helpless information stockpiling and the board. Cloud computing proffer the best and most recent answer for check the issues distinguished in the business banks, as featured in this examination if and when embraced. Haslinda, Mohd and, Norhaiza (2017) researched on Cloud Computing Adoption in Organizations. The examination surved writing on distributed computing appropriation in associations to distinguish its compelling components and its operationalisation in earlier writing. The scientists arrange the variables that impact the distributed computing reception utilizing the three settings recommended by the Technology Organization-Environment (TOE) system, to be specific, innovation, association, and condition. The finding from the examination recommends that the impacts of these elements differ across studies and a large portion of the investigations have operationalised distributed computing appropriation utilizing aim to embrace distributed computing or double factor, as opposed to the real utilization of the innovation.

3.0 METHODOLOGY

Effect of Cloud-Based Accounting On Manufacturing Firms in Nigeria A study of Twinstar Industries Ltd., Ogun State

The research seeks to know the effect of cloud based accounting on manufacturing firms in Nigeria, covering the activities of Twinstar Industries Ltd., as a manufacturing firm situated in Ogun State. The structure of the process and procedure is descriptive and this is under the survey research design. The total population of the study is 261. However, the population was restricted to the various units/departments in Twinstar Industries Ltd, Ogun State. The questionnaire was well-structured which is made up of ten (10) close-ended questions with five (5) Likert scale response (Strongly Agreed,

Agreed, Undecided, Strongly Disagreed and Disagreed). The Analysis of Variance (ANOVA) statistical method was employed to analyze the data collected at 5% level of Significance.

4.0 RESULTS

A total of 261 copies of the questionnaire were issued by the researcher to the staff of Twinstar Industries Ltd. in Ogun State, out of which 229 representing 87.7% were attended to and returned, which were used for analysis.

Interpretation of data

Table 1: Questionnaire summary

S/N	Questions/Variables	SA	Agrd	Undcd.	SD	Dsgrd
1.	Twinstar Industries Ltd. is more satisfied with the services of Cloud based accounting.	110	72	5	27	15
2.	There are many challenges encountered when accounts are prepared manually which do not exist in the use of cloud based accounting	122	65	7	25	10
3.	Cloud based accounting is simple and easy to use and as well saves time.	119	74	10	19	7
4.	There are errors in the previous method of computing in Twinstar Industries Limited.	115	69	7	21	17
5.	The management of Twinstar Industries Ltd. Organizes training for staff in order to be adapted to the use of cloud based accounting.	111	77	18	5	17
6.	Information technology has enhanced the performance of Twinstar Industries Limited.	113	89	10	10	7
7.	Not only the senior staff are familiar with the use of cloud based accounting.	121	78	16	6	8
8.	The cloud accounting makes the records of Twinstar Industries Ltd. be safe and free from loss	115	66	10	15	23
9.	Cloud accounting has helped in the aspect of awareness creation for Twinstar Industries Ltd.	117	88	7	11	6
10.	Cloud based accounting enhanced operations of Twinstar Industries Ltd. both internally and externally	114	57	11	25	22

Source: Field Survey, 2022 (some of the questions in the questionnaire were adopted and others were constructed by the researcher).

**Effect of Cloud-Based Accounting On Manufacturing Firms in Nigeria
A study of Twinstar Industries Ltd., Ogun State**

Hypothesis One

H0₁: Cloud-Based Accounting does not impact manufacturing firm policies and operations

ANOVA SUMMARY

Table 2: ANOVA Summary for Ho1

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	42920.96	4	10730.24	317.6507	8.66E-18	2.866081
Within Groups	675.6	20	33.78			
Total	43596.56	24				

Critical Value of 5% level of significance with degree of freedom 4 to 20 is 2.87

Decision Rule

Since the calculated value is 8.66, is greater than the critical value of 2.87. The alternative hypothesis should be accepted and the null hypothesis (H0) should be rejected.

Therefore, Cloud-Based Accounting does impact manufacturing firm policies and operations

Hypothesis One

H0₂: There is no relationship between Information Technology and the performance of manufacturing firms in Nigeria.

ANOVA SUMMARY

Table 3 ANOVA Summary for Ho2

Source of Variation	SS	Df	MS	F	P-value	F crit
Between	45768	4	11442	168.2647	4.29E-15	2.866081
Within	1360	20	68			
Total	47128	24				

Critical Value of 5% level of significance with degree of freedom 4 to 20 is 2.87

Decision Rule

Since the calculated value is 4.29, is greater than the critical value of 2.87. The alternative hypothesis should be accepted and the null hypothesis (H0) should be rejected.

organization. From the findings of this study, it was concluded that cloud accounting has significant effect on the policies and procedures of manufacturing firms. It can further be concluded that cloud based accounting is a solution when effectively used provides benefits to the business enterprise in the aspect of Safe storage of financial data, Sync data automatically, Pay as you grow, Multi user access, Data accuracy, Prevent unauthorized access and Minimal downtime. The study noted that immediate information access helps to get a clear picture of how your business is doing, and also to prepare for the market's future demands. It showed that Cloud-Based Accounting has significant impact on manufacturing firm policies and operations.

Therefore, there is a relationship between Information Technology and the performance of manufacturing firms in Nigeria.

Conclusion and Recommendation

Based on result of the analysis derived from this study, it can be concluded that cloud based accounting serves as a way paver and performance enhancement in Manufacturing firms in Nigeria. The application of cloud based accounting in manufacturing firm is indeed a problem solver and tasks burdened easier thereby ensuring that the manufacturing firms' performances are improved with the aid cloud based accounting gave the policies and procedures of the firms.

From the above conclusion, the study recommends the following;

The use of cloud based accounting should be harmonized with management accounting functions and management accountants should

The application of cloud based accounting is an important strategy to drive down cost in the

**Effect of Cloud-Based Accounting On Manufacturing Firms in Nigeria
A study of Twinstar Industries Ltd., Ogun State**

be trained for the use of cloud accounting system in the manufacturing firms.

There should be insights into the policymakers to better understand and enable them to implement suitable strategies to minimise potential damaging factors and improve current trends in their development.

The management of manufacturing firms should organize training, seminars and conferences for staff in order to be adapted to the use of cloud based accounting.

REFERENCES

- Abdullah, A. (2016). A Knowledge Management Based Cloud Computing Adoption (Doctoral dissertation). Staffordshire University.
- Abidde, M. O. (2021). Cloud Computer Based Accounting and Corporate Financial Performance: A Study of Some Listed Manufacturing Companies in Nigeria. *IOSR Journal of Business and Management (IOSR-JBM)* e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 23, PP 12-19
- António, T., Fernando, B. and Raquel, P. E., (2016). Accounting information systems: evolving towards a business process-oriented accounting, *Procedia Computer Science*, 100(2016), 987 – 994. doi: 10.1016/j.procs.2016.09.264
- Buttell, A. E. (2010). Six reasons to switch to cloud computing, *Journal of Financial Planning, Practice Management*, 3(7), 6-7.
- Chan W., Leung E. and Pili H., (2012), Enterprise risk Management for cloud computing, *Committee Of Sponsoring Organizations of the Treadway Commission (COSO)*, Crowe Horwath LLP.
- Dimitriu, O. and M. Matei, Cloud accounting: A new business model in a challenging context, *Procedia Economics and Finance*, 32,2015, 665-671.
- Ebenezer E. E. S., Omane-Antwi K. B. and Kyei M. E., (2014), Accounting in the Cloud: How Cloud Computing Can Transform Businesses (The Ghanaian Perspective), *Proceedings of the Second International Conference on Global Business, Economics, Finance and Social Sciences (GB14Chennai Conference)* ISBN: 978-1-941505-14-4 Chennai, India 11-13 July 2014 Paper ID:CF440.
- Gill, R. (2011), “Why cloud computing matters to finance”, *Strategic Finance*, January, pp. 43-47
- GMLCPA (2017). <http://www.gmlcpa.com/category/accounting-blog/page/2/> accessed on May 15, 2017
- Haslinda, H., Mohd, H.M.N., and Norhaiza, K. (2017), Cloud Computing Adoption in Organisations: Review of Empirical Literature, *SHS Web of Conferences* 34, 02001
- Jordanian Trade Law, No. 12 of 1966, Article 16.
- Laberta, C., (2011), *Computers are your future*, Ed.11, Pearson Education Inc, Publishing as Prentic.
- Lobana, J. (2013), *Cloud Computing for Not-for Profit Organizations – Questions for Directors to Ask*, Chartered Professional Accountants Canada.
- Khanom, K., (2017). Cloud accounting: a theoretical overview, *IOSR Journal of Business and Management*, 19(6), 31-38. doi: 10.9790/487X-1906053138
- Mell P. and Grance T., (2011), *The NIST Definition of Cloud Computing*, Recommendation National Institute of standard and Technology.
- Mohammadi, S. and A. Mohammadi, Effect of Cloud Computing in Accounting and Comparison with the Traditional Model, *Research Journal of Finance and Accounting*, , 5(23), 2014, 104-114.
- Mugenyi, R. (2018), Adoption of Cloud Computing Services for Sustainable Development of Commercial Banks in Uganda, *Global Journal of Computer Science and Technology: B Cloud and Distributed*, 18(1), 1-9. ISSN: 0975-4172.
- Owolabi, S.A, Izang, J.U. (2020). Cloud Accounting and Financial Reporting. *International Journal of Research Publications. IJRP 2020*, 60(1), 21-28; doi:10.47119/IJRP100601920201411
- Paychex (2017). <https://www.paychex.com/articles/finan>

Effect of Cloud-Based Accounting On Manufacturing Firms in Nigeria A study of Twinstar Industries Ltd., Ogun State

- ce/benefits-of-cloud-over-traditional-accounting/ accessed on May 05, 2017.
- Perminov S, Egorova E (2005) ICT impact on labor productivity and employment in Russia, TIGER working paper series, no 30
- Reding, V. (2009), Member of the European Commission responsible for Information Society and Media Internet of the future: Europe must be a key player, Brussels, 2 February 2009, http://www.esinternet.imasdtic.es/CLI_AETIC/ftpportalweb/documentos/discurso_reading_020209.pdf
- Satapathy S, Mishra P (2013) A customer oriented systematic framework to extract business strategy in Indian electricity services. J Ind Eng Int 9:33
- Walter Johnson (2018). Manufacturing firm. Reviewed by: Michelle Seidel, B.Sc., LL.B., MBA Updated November 08, 2018
- Zhang, L. and W. Gu, The Simple Analysis of Impact on Financial Outsourcing Because of The Rising Of Cloud Accounting, Asian Journal of Business and Management, 5(1) ,2013, 140-143.