Cloud Computer Based Accounting and Corporate Financial Performance: A Study of Some Listed Manufacturing Companies in Nigeria

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Abstract

The study investigated the cloud computer based accounting and corporate financial performance of manufacturing firms listed on the NSE using the ex-post facto research design. The study adopted the following objectives: To ascertain the pre and post application of NetSuite's impact on Return on Asset of listed Manufacturing firms in Nigeria; To determine the pre and post application of NetSuite impact on Return on Equity of listed Manufacturing firms in Nigeria for the period under study; To evaluate the pre and post application of NetSuite impact on the listed manufacturing firms Return on Capital Employed in Nigeria for the period under study.

The found that there was no consensus among the researchers on the studied topic, some agree with significant implications while others submitted entire negative financial performance implications. The study recommended that the federal government and its allied should continue with its support for an effective implementation strategies in respect to the persistent use of modern computer based accounting technologies structured out for its onward strives for manufacturing firms financial performance indicators. Such as: Return on asset (ROA), return on equity (ROE) and return on capital employed (ROCE) respectively and the regulatory authorities should be strengthened to embark on proactive modern technology based management in Nigeria.

Keywords: Cloud Accounting, Financial ratios, Financial Performance

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I. Introduction

In every profit-making organization, the basic goal is to ensure steady growth in profitability. Financial performance can be viewed as the way firm measure their asset usage in their business operation which is aimed at making profit. In other words, financial performance can be used in the measurement of the company's liquidity within an accounting period. For a company to ascertain its performance it must ensure that the cost, quality and flexibility are in checked in other to maximize profit for the business going concern. The financial performance in which financial ratios are adopted for computing; comparing and contrasting financial ratios which are derived from the financial statement to revealed the viability of the organization financial strengths and weakness. It shows us how much profit was generated from asset, how much profit was generated from the equity of the organization, how it manages its debt, how efficient was it able to manage the capital employed and so much more.

The computation of the financial ratios data are obtained in financial statements of the organization. Statement of Financial Position, Statement of Comprehensive Income and Statement of Cash Flow are used in making different analyses for different information users. These indicators can be used to make deductions about a company's financial condition and its operations and attractiveness as an investment. They also can be used to examine trends and make contrast companies' financial performance and situation to other firms. Understanding how cloud accounting affects firms' financial performance is crucial and germane to meeting corporate goals and objectives.

The hunt for advancement on performance has always been an important issue for firms. As it is suggested in the natural habitat where the continuity of the inhabitants depends largely on the environmental phenomena, such as sunlight, rainfall, and humidity, so is it applied in corporate life. 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 other to improve the financial performance of their firm.

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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 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. This research work intends to ascertain knowledge on whether the cloud based accounting system in the selected manufacturing companies affect financial performance in their operations visa-viz the return on total asset, return on capital employed or return on equity.

The primary aim of the research is to identify whether cloud accounting affect financial performance; it will also create awareness about cloud accounting, to determine how cloud computing can assist accounting and to establish what effects cloud accounting can have on manufacturing businesses in Nigeria.

The study focuses on the impact of cloud computer based accounting and corporate financial performance. This paper categorizes of five sections, Section one deals with the Introductory and problem statement, Section two discusses the literature review, Section three explains the Methodology, Section four emphasis on the analysis and discussion of findings and finally, Section five explains the conclusion and recommendation.

II. Review Of Related Literature

Conceptual Framework

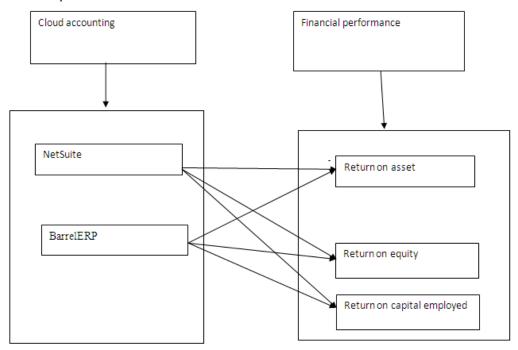
Concept of Cloud Computing and Accounting

The concept of cloud computing and accounting cloud accounting is taking the concept of cloud computing and applying it to an accounting context. The nexus association of cloud accounting and cloud computing is similarly, cloud computing is seen as service delivery like software, shared information from the computer and other devices over a network. Cloud accounting relates to the access to the accounting software and data through the internet. The user of cloud accounting could access the cloud based application through their web browser or mobile applications while the software and information are stored and uploaded to the server remotely. The cloud accounting software can be accessed through the internet with the help of the browser. The software needs to be subscribed on annual basis and the information are often stored on the remote server.

Concept of Financial Performance

A firm's financial performance is of importance to investors, stakeholders and the economy at large. Investors are interested in the returns for their investment. A business that is performing well can bring better reward to their investors. Financial performance of a firm can increase the income of its staff, rendering quality product or services to its customers and creating more goodwill in the environment it operates. A company that has good performance can generate more returns which can lead to future opportunities that can in turn create employment and increase the wealth of people. Firm's performance is the ability of a firm to achieve its objectives from its available resources. A firm's performance can be viewed as the result of a company's assessment or strategy on how well a company accomplished its goals and objectives. Financial performance provides a deductive measure of how well a company can use assets from business operations to generate revenue. Pandey (2005) defined financial performance as a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. Pandey (2005) opined that the term financial performance is used as measurement of the overall financial health of a business. Research on the firm's financial performance emanates from organizations theory and strategic management. The notion of financial performance is used to describe performance of an entity with the legal status of a company.

Operational Conceptual Framework



III. Theoretical Framework

There are numbers theories that support the reasons why companies through their management would undertake to adopt cloud computer based accounting. These theories include:

1. Diffusion of Innovation Theory (DOI)

The study is anchored on the theory of diffusion of innovation theory (DOI), Innovation is an overview of any "idea, practice or object that is perceived to be new" (Rogers, 2003). He opined that an innovation has two parts. It is perceived at the first stage as the generation of an idea and seconded by the conversion of new idea into a business. Scholars attempted to elaborate on innovation as something really new, either an invention, a new combination (Schumpeter, 1934) as cited in Rogers (2003), or something subject to the dimensions, such as product innovation or process innovation (Maidique & Zirger, 1984). The keyword of this construct is perception. As the case demonstrates, in order to diffuse new enterprise systems internally, communication must involve interpersonal interactions among the internal staff, personal persuasion, emails, and finally, a formal business case document. External diffusion includes the Request for Information (RFI) taking the form of newspaper advertisements and uploads to a government website, and the Request for Proposal (RFP) sent to the short-listed vendors.

2. Stakeholder Theory

The stakeholder theory is a theory of organizational management and business ethics that addresses morals and values in managing an organization. It was originally detailed by Ian Mitroff in 1983 in San Francisco. Stakeholder theory instead argues that there are other parties involved, including employees, customers, suppliers, financiers, communities, governmental bodies, political groups, trade associations, and trade unions. Even competitors are sometimes counted as stakeholders – their status being derived from their capacity to affect the firm and its stakeholders. The nature of what constitutes a stakeholder is highly contested with hundreds of definitions existing in the academic literature

The stakeholder view of strategy integrates both a resource-based view and a market-based view, and adds a socio-political level. One common version of stakeholder theory seeks to define the specific stakeholders of a company (the normative theory of stakeholder identification) and then examine the conditions under which managers treat these parties as stakeholders (Mitroff, 1983).

Stakeholder theory suggests that the purpose of a business is to create as much value as possible for stakeholders. In order to succeed and be sustainable over time, executives must keep the interests of customers, suppliers, employees, communities and shareholders aligned and going in the same direction.

Empirical Review

Onyali, (2015) explored a conceptual paper on the comparism of traditional packages of cloud computing and accounting on corporate performance. The study unveil the lacuna in the traditional accounting packages and the advantage of adopting cloud software accounting. The scholar recommended that it is utmost necessary for companies to adopt the cloud computing to improved performance.

Chinyao, Yahsueh & Mingchang (2011) explored the adoption of cloud accounting and financial performance of high-tech industry. The study obtained data through questionnaire from 111 firms in Taiwan and regress using the logistic regression method. The study found that relative advantage, top management support, firm size, competitive pressure, and trading partner pressure characteristics has a significant effect on the adoption of cloud computing. The study recommended that firms should put into consideration their investment technologies before adopting the cloud computing.

In the work of Bogdan, Juliana and Laura (2013) carried out comparative analyses on traditional vs cloud accounting in Romanian firms. The study recommended that the cost saving generated by the utilization of a cloud computing based application is important enough to represent a relevant criterion when selecting the internet-based accounting solution.

Nnadozie (2013) explored cloud computing and importance in the accounting industry in Nigeria. He believed that the internet is the most essential aspect in every organization. The cloud accounting plays a vital role in the practice of accounting and auditing firms in the advancement of creative technological in respect to storing, processing and information reported. The study reveals that the level of awareness of cloud accounting is significant and also, cloud based accounting is seen as cost savings both in hardware and software.

Salim (2016) investigated the adoption of cloud accounting in SMEs in Australia. The researcher obtained data from 203 SMEs firms and the data were analyzed using the statistically validated model. The study revealed that technological factors (cost savings, relative advantage, compatibility), organizational factors (firm size, top management support, innovativeness' of the firm, and IS knowledge), and environmental factors (market scope and external computing support) were strong factor on the adoption of cloud computing services.

Xinding Ma (2015) interrogated the cloud computing for SMEs related to accounting sector. The scholar deposited that cloud computing has attracted attention from researchers and practitioners in the IT sector. He posited that cloud accounting computing has been viewed as an innovative movement in the reduction of cost and increases savings.

Hypotheses were stated in the null form;

H₀₁: pre and post application of NetSuite has no significant impact on the listed manufacturing firms Return on Asset in Nigeria.

 \mathbf{H}_{02} : pre and post NetSuite application has no significant impact on Return on Equity of listed manufacturing firms in Nigeria.

 \mathbf{H}_{03} : NetSuite pre and post application on listed manufacturing firms has no significant impact on their Return on Capital Employed in Nigeria.

IV. Methodology

The cross-sectional research design covering a period of four (4) financial years for a pre (2009-2012) and post (2013-2016) application period is adopted. This research strategy is considered appropriate because of its ability to view comprehensively and in detail the major questions raised in the study.

The data were obtained from the published annual financial report of the listed manufacturing companies for the financial performance variables required. While cloud accounting package (NetSuite Cloud Software) connote the dependent variable for the period under study on comparative basis.

The population of study shall consist of six (6) listed manufacturing companies in Nigeria namely, Guinness Nigeria Plc, Nigeria Breweries Plc, Champion Breweries Plc, Intafac Beverages Ltd, 7up Bottling Company Plc and International Breweries Ltd.

The test of equality and the sample T-test technique "t*" was employed to measure the differences between two means of the variables for the Pre and Post NetSuite application and the statistical package for social science (SPSS) to regress the data.

Decision Rule

In this study the decision rule is to reject the null hypothesis (H_0) and accept the alternate hypothesis (H_1) if the calculated t^* value is greater than the table value at 5% level of significance, but where the calculated value of t^* is less than the table value at 5% critical value, the study accepts the null hypothesis (H_0) and reject the alternate hypothesis (H_1) .

Measurement of Variable

Return on Asset: is the measurement of the effectiveness of the company in generating profits by exploiting its asset (Prastowo, 2002).

The return on assets can be calculated as; ROA = NET ASSETS / NET PROFIT

Return on Equity: The Return on Equity (ROE) reveal the way firms manages their own net worth effectively as it measures the investment profit that has been made owners of their own capital or shareholders of the company.

Return on Capital Employed (ROCE): The ratio compares a firm's earnings from its primary operations with the capital invested in the company and can serve as a reliable measure of corporate performance (McClure, 2010).

ROCE = EARNING BEFORE INTEREST AND TAX/CAPITAL EMPLOYED

V. Results and Discussion of Findings

Table 1: Paired Samples Statistics & Samples Test Result

Variables	Mean	N	Std. Deviation	Std. Error Mean	t	df	t-crit 5%
PRE ROA	0.7000	4	5.95819	2.97909.			
POST ROA	2.3750	4	0.30957	0.22500	-1.063	3	2.132
PRE ROE	-16.8750	4	51.87796	25.93898			
POST ROE	23.0250	4	1.42215	.71107	-1.524	3	2.132
PRE ROCE	3.25214	4	27.91551	13.95776			
POST ROCE	3.91874	4	62.85479	31.42739	-2.125	3	2.132

Source: Author's Computation with SPSS Software

Test of Hypotheses Hypothesis One (H0₁)

The two tail-tests in table 1 revealed the differences of means and result on return on asset (ROA) of listed manufacturing firms to ascertain the stated hypothesis, the study accepted the null form of hypothesis $(H0_1)$ and rejected the alternate form $(H1_1)$. The study concluded that the pre and post application of NetSuite has no significant impact on listed manufacturing firms return on asset (ROA) in Nigeria for the period under study.

Hypothesis Two (H₀₂)

The two tail-tests in table 1 revealed the differences of means and results on return on equity (ROE) of listed manufacturing firms to ascertain the stated hypothesis, the study accepted the null form of hypothesis $(H0_2)$ and rejected the alternate form $(H1_2)$. The study concluded that the pre and post application of NetSuite has no significant impact on return on equity (ROE) of listed manufacturing firms in Nigeria for the periods under study.

Hypothesis Three (H0₃)

The two tail-tests in table 1 revealed the difference of means and results on return on capital employed (ROCE) of listed manufacturing firms to ascertain the stated the hypothesis, the study accepted the null form of hypothesis ($H0_3$) and rejected the alternate form ($H1_3$) and the study revealed that the pre and post NetSuite application has no significant impact on the listed manufacturing firms return on capital employed (ROCE) in Nigeria for the period under study.

Discussion of Findings Return on asset (ROA)

From table 1.2, the return on assets (ROA) mean for post NetSuite application era on listed manufacturing firms is 2.3750 with an associated standard deviation of 0.30957 while the pre NetSuite application era on listed manufacturing firms has a mean value of 0.7000 with an increased nexus between standard deviation of 5.95819.

This implies that listed manufacturing firms utilize more of their resources to enhance financial performance in the post NetSuite application era with lesser associated risks than in the pre NetSuite application era in Nigeria for the periods under study. In other words, financial performance of listed manufacturing firms in respect to assets usage for fund realization is more pronounced in the post NetSuite application era than in the pre NetSuite application era in Nigeria with low associated risks in their operations.

The critical region under the two tail test at 5% level of significance is greater than the calculated t* value. Since the calculated t* falls within the acceptance region we conclude that the difference is not statistically significant.

Return on equity (ROE)

For return on equity (ROE), the pre NetSuite application mean is -16.8750 with a standard deviation of 51.87796, while the post NetSuite application era has a mean stood at 23.0250 with a standard deviation of 1.42215.

The implication of this result is that listed manufacturing firms in the post NetSuite application era make more profit and invariably attracts more investors in the sector with lesser associated risks than in the pre NetSuite application era in Nigeria for the periods under study.

This may be as a result of more familiarity with computer based accounting practices and improvement on implementation strategies by manufacturing firms in the country.

However, there is no significant difference between the means of the two populations.

Return on Capital Employed (ROCE)

For return on capital employed (ROCE), the pre NetSuite application era has a mean of 3.25214 with a standard deviation of 27.91551, while the post NetSuite application era has an increased mean of 3.91874 with an increased standard deviation of 62.85479

This result implies that listed manufacturing firms in the post NetSuite application era in Nigeria are more sound and stable in terms of income generation and their general financial performance than the pre NetSuite application era for the periods under study.

However, the results also show no significant difference between the means of the two populations.

However, results of return on asset, return on equity and return on capital employed, are contrary to the findings of Chinyao & Mingchang (2011), Onyali (2016) and Nnadozie (2013) respectively, that submit an entire significant implications. Nevertheless, the study findings conform to that of Xinding (2015). These contrary empirical findings from previous related works may be hinge on difference of range of periods and methodological approach employed.

VI. Conclusion And Recommendations

Conclusion

The study examined cloud computer based accounting and corporate financial performance with particular interest on the pre and post NetSuite application on listed manufacturing firms in Nigeria that span a study period of 2009-2012 and 2013-2016 respectively.

The study carried out a thorough comprehensive related literature review and found that there was no consensus among the researchers on the studied topic, some agree with significant implications while others submitted entire negative financial performance implications.

A comparative analysis of difference between means was carried out coupled with sample t-test to test the three hypotheses outlined in the study to give clarity of purpose. The outcome of the test shows that the pre and post NetSuite application on listed manufacturing firms' financial performance indicators in Nigeria has no significant impact for the periods under study.

Thus, this is not withstanding that, the implementation of cloud computer based accounting (NetSuite) has cause an unprecedented process of revival and resuscitation of the Nigerian manufacturing sector, making it more competitive and investors' friendly in recent times.

Our conclusion therefore, is that cloud computer based accounting (NetSuite) is good for Nigerian manufacturing sector. What remains, is how the country will constantly maintain, improve and invest more on modern cloud computer based accounting technologies in order to attain international best practices in the sector.

Recommendations

From the empirical comparative analysis and results obtained from the T-test, we are constrained to recommend as follows:

- 1. The federal government and its allied should continue with its support for an effective implementation strategies in respect to the persistent use of modern computer based accounting technologies structured out for its onward strives for manufacturing firms financial performance indicators. Such as: Return on asset (ROA), return on equity (ROE) and return on capital employed (ROCE) respectively.
- 2. Regulatory authorities should be strengthened to embark on proactive modern technology based management in Nigeria.
- 3. We also recommend: Impact of forensic audit on corporate governance in Nigeria as an area to reexamine.

Contribution to Knowledge

Knowledge is considered as an awareness or familiarity gained by experience of fact. Therefore, this thesis contributes to knowledge by considering return on asset (ROA), return on equity (ROE) and return on capital

employed (ROCE) as financial performance indicators of the listed manufacturing firms in Nigeria and identifying the post NetSuite application era to be more effective in financial performance of the listed manufacturing firms in Nigeria for the period under study.

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SPSS TEST RESULTS FOR THE SET OF VARIABLES USED IN THE STUDY

Paired Samples Statistics

Ŧ	_	Mean	N	Std. Deviation	Std. Error Mean
Pair 1	ROA1	7000	4	5.95819	2.97909
	ROA2	2.6250	4	.30957	.15478

Paired Samples Correlations

	9	N	Correlation	Sig.
Pair 1	ROA1 & ROA2	4	464	.536

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Paired Samples Statistics

_		Mean	N	Std. Deviation	Std. Error Mean	
Pair 1	ROE1	-16.8750	4	51.87796	25.93898	
	ROE2	23.0250	4	1.42215	.71107	

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	ROE1 & ROE2	4	337	.663

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	ROCE1	3.2521E4	4	2729.91551	1364.95776
	ROCE2	3.9187E4	4	6232.83637	3116.41818

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	ROCE1	3.2521E4	4	2729.91551	1364.95776
	ROCE2	3.9187E4	4	6232.83637	3116.41818

Paired Samples Test

				95% Confidence Interval of the Difference		t	df	
variables	Mean	Std.	Std. Error					Sig. (2-
		Deviation	Mean	Lower	Upper			tailed)
ROA1 - ROA2	-3.32500	6.10812	3.05406	-13.04439	6.39439	-1.089	3	.356
ROE1 – ROE2	-3.990001	52.37442	26.18721	-123.239	43.4393	-1.524	3	.225
ROCE1 – ROCE2	-6.665633	62.47074	31.73537	-1664.1168	3316.866	-2.125	3	.124