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Computerized Accounting System and Performance of the Banking Sector in Nigeria

Yunusa Acho
Department of Accountancy, The Federal Polytechnic, Idah, Kogi State, Nigeria
Email: achoyunusa@yahoo.com

Abstract
The banking sector is becoming increasingly completive thus for the banks to strive effectively they need to satisfy their customers and this can only be facilitated through computerization of their operations. This study titled computerized accounting system and the performance of banking sector in Nigeria is carried out to examine the impact of computerized accounting system on the performance in banking sector in Nigeria. The research adopts descriptive research survey design and respondents were reached using a 10 items structured questionnaire. The population of the study is 1892 who are employees of the banks. The study adopts Godden sample size statistical formula which generated a sample size of 319. However, out of the total of 319 questionnaires distributed only 184 were duly completed and returned giving a retrieval rate of 58%. The data were analyzed using a five point's likert scale and the analytical tool is the linear regression analysis. The finding revealed that computerized accounting system has enhanced performance of banking sector in Nigeria. Thus, recommends that computerized accounting system should be sustained in the banking sector while periodic training of their personnel be carried out to enable them strive competitively.

Keywords: *Computerized, accounting, banking, performance.*

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Introduction

Modern means of transacting banking businesses have led to significant improvement in the growth and adoption of information technological infrastructure thus gradually neglecting the manual accounting system of accounting (Allan et al., 2017). Computerized accounting system (CAS) is seen as an application of computer- based software which is used as tools for input, processing, storage and transformation of accounting information. This means that computerized accounting system is fundamentally targeted at accurate financial transaction and reporting thereby aid in the pursuance of the bank overall objective.

Mbilla et al (2020), Akesinro and Adetoso (2016), revealed that accounting is one of the basic functions of businesses be it small, medium, large, public or private. However, every spheres of business strive to expand in their scopes and operations thus, making their accounting operations more cumbersome while expanding. To this end, the application of computer and its allied hardware and software for such operations becomes unavoidable especially in this era of global competiveness where businesses require more innovative strategies to enable them strive competitively to meet their immediate and strategic objectives. Though, Akanbi and Adewoje (2018), Abiahu (2014) argued that both public and private organizations view accounting computerization as an automobile technique of ensuring an effective and efficient information flow in recording, processing as well as transmission of financial data, the mobilization of computerized accounting system in transacting banking operations is principally targeted at pursuing business objectives of improved and sustained business performance.

In Nigeria, the banking industry is regulated by the central bank of Nigeria CBN. The central Bank of Nigeria is charged among others with the responsibility of ensuring that operations of commercial

banks are conducted in the most efficient manner towards serving the public in the most responsible manner as well as be able to strive towards improved performance.
Therefore, while pursuing this objective, the application of computerization becomes imperative. This implies that in conducting business operations using the computerized accounting system is targeted at facilitating banking operations through data processing and transmission to meet stakeholders needs through speed, accuracy, reliability and consistency. This research therefore is aimed at examining how computerized accounting system helps in improving the performance of banking industry in Nigeria.

Objective of the Study

Generally, this study examines the impact of computerized accounting system on the performance in banking sector in Nigeria.

Research Question

This study is guided by this research question:

What is the relationship between computerized accounting system and performance of banking sector in Nigeria?

Statement of Hypothesis

Consequent upon the research objective and research question the study formulates this research hypothesis in its null form to guide the research:

H_1: There is no significant relationship between computerized accounting system and performance of banking sector in Nigeria.

Literature Review

Computerized accounting system is seen as the designed system of recording and transmission of accounting transactions and other events of business in line with accounting policies and procedures (Hartzell, 2005). Again, accounting system is seen as a formulized system of identifying, appraising, integrating, analyzing, preparation and integrating of accounting information about a particular institution (Ama, 2004, Etengu & Nasieku, 2015). This implies that accounting system entails an integrated mechanism for collection and communication of data targeted at pursuing firms' objective. Therefore, accounting system entails accounting terminologies, recording of instructions aimed at confirming such business transaction. To Hartzel (2006), Amachalu et al., (2017), accounting system include a consistent manner of organizing, recording, summarizing and reporting financial transactions. Thus, accounting system entails integrated records, procedures and equipment which routinely entail activities affecting firms' financial performance.
Though, Ama (2004) noted that manual accounting system adopts special journal to streamline the journalizing and posting procedures, computerized accounting system adopts a specialized tools which compute data as well as manipulate other relevant information. Hence computerized accounting system enable users to enter the transactions into computerized programmes aimed at transmitting such information effectively to the end-users. Therefore, Taiwo (2016) noted that accounting system involve elements such as people, procedure and instructions, data, software internal control and information technological infrastructure. Hence accounting system is an

integrated system which when properly adopted aids in pursuance of firms' immediate and strategic objectives.

Concept of performance

Performance according to Taiwo (2016) is seen as the accomplishment of a well defined tasks measured in line with the pre-determined set goal putting into consideration, cost, speed as well as accuracy. Again, performance is seen as the process or results of firms covering a specified period of time. James (2017) sees performance of firm as the communicative output of an organization obtained from its output. To this end, firm performance is measured using several indices such as profitability, effectiveness, efficiency, employee retention, customers' satisfaction etc. (Taiwo 2016 & Adel 2020).

However, Taiwo (2016) revealed that performance of banking industry can be measured using effectiveness which is seen as the extent to which output matches with the pre-determined objectives. Additionally, profitability is seen as the measure of firms' revenue over its costs, that is, its return on investment while efficiency in the banking sector is seen as the measure to which tasks are being carried out with minimal costs and efforts. Taiwo (2016) also argued that quality in the banking sector is seen as the measure to which output meets customers perceived expectations thereby leading to customers satisfaction such as repeat patronage, customers loyalty as well as referral by such customer to potential customers. Finally, productivity which is the cumulative amount of output over input is another metric of measuring firm performance and this is executed in the banking sector through the ratio of value added to the total labour and capital invested.

Application of computes in the banking industry

Ware (2015) revealed that the operation of banking transactions in this modern era can only be effective through the application of computerization. Therefore, the routine application of computer in the banking industry includes the following:

i. Payroll and employee records. The payroll was one of the early applications of computerization in the banking industry. This is executed through the calculation of personnel wages and salaries as well as computation of other charges and bonuses.
ii. Sales accounting records: This programme is designed for identification of pin point defaulting debtors which helps in identifying the particular limit for each debtors as well as maintaining of stores ledger.
iii. Production control: The computerized accounting system also help in planning and control as well as other manipulation of work schedule and identification of critical path in production process.
iv. Accounting, billing system, inventory control system.
v. Application of accounting software for banking services towards efficient service delivery.
vi. Budgetary control: Computerization is also applied in budgetary and cost control in the banking industry.
vii. Stock control: Computerization is also applied to track stock thereby taking decision on minimum stock level, re-order level, maximum stock level etc
viii. Research and development: Computerization also facilitates research and development activities by the banks. These enable them to meet up with the dynamics of business environment.

Computerized accounting system in the banking sector: prospects and challenges

Dumitru et al (2010), Keller and Gracht (2014) noted that computerization in the banking industry has been able to play critical role in pursuance of its objectives. Hence, the specific benefit is of

computerized accounting system enables competition through broadening the quality and efficiency of services being provided through computerization.

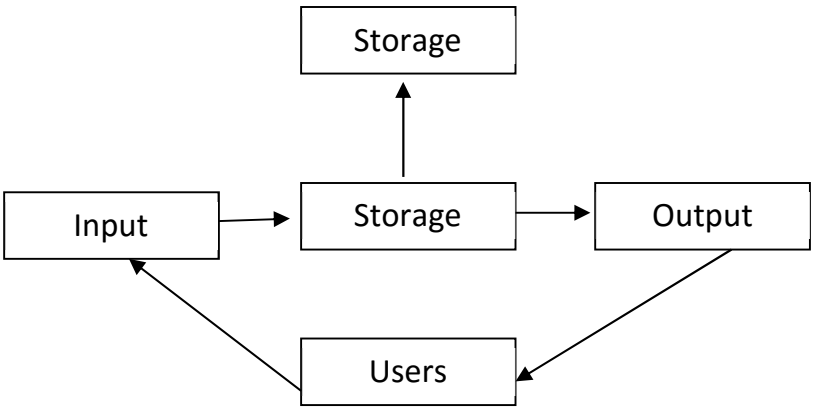
Again, through computerization, the management can be able to have control over the banking transactions through this decision making will be facilitated without delay since communication between all the critical stakeholders is facilitated. Additionally, the applications of computerization broaden business opportunities thereby enabling the firms to strive competitively. Again, through the application of computerization, ware (2015) noted that the level of reliability and consistency is greatly enhanced thereby enabling the bank to meet customers' needs as well as other stakeholders expectation efficiently. In addition, through the instrumentality of computerization in the banking sector, high level of speed and accuracy is enhanced as well as providing platform for proper storage and transmission of data. Despite these benefits of computerization in the banking sector Vermeat and Shelly (2011) revealed that computerization of the banking sector has been characterized with health hazards to users, threatening of public safety, environmental degradation and pollution, violation of privacy as well as its general impact on labour force. However, despite these drawbacks computerized accounting system play a critical role to the performance of banking industry in Nigeria.

Theoretical Review

System Theory

The system theories according to Mbilla et al (2020) posit that a system is the interconnection of several activities which involves the several segments of the given institution. Again Mbilla et al (2020) noted that system which is seen as the interrelationship between and among various segments are wholly interdependent thus co-exist towards pursuance of the collective goal of such system. Thus, the system theory sees all part of the institution as critical which co-exist towards meeting the immediate and strategic interests. The computerized based system which work collectively towards integrating several aspects of banking transactions such as personnel, customers, information, stocks and other resources towards meeting the overall performance. The system theory put into consideration the input, processing, output through the users and storage of information. This theory is relevant to the study considering the fact that the computerized accounting system fits into this theory as several fits as several components of accounting information are processed towards accounting manipulation targeting at meeting the overall firms objective. The system theory portrays the computerized accounting system as described in the model below.

Fig 1: computerized accounting system model



Source: Mbilla *et al.,* 2020

Research Methodology

The study adopts the descriptive research design which is a technique involving surveying respondents by collecting responses for the purpose of analysis. Hence, the primary data obtained were through a structured questionnaire and the collected data were subjected to descriptive and inferential statistical analysis.

Additionally, population of this research comprised the entire employees of commercial banks in Nigeria but specifically covered employees in Kogi state. Therefore the total population is 1242. The research adopts Godden' statistical formula which is statistical technique for determination of sample size therefore, in using the Godden statistical formula we have:

The Godden (2004) formula denoted as.:

$$SS = \frac{Z^2 (P)(1-P)}{C^2} \quad \text{-- equ (1)}$$

$$\text{New SS} = \frac{SS}{1 + \frac{(SS - 1)}{\text{Population}}} \quad \text{equ (2)}$$

Where SS = Sample size
Z = Confidence level 95 %
P = Percentage of population (50%)
C= Confidence interval = 5 % (0.05)

$$SS = \frac{1.96^2 (0.5)(1-0.5)}{0.05^2} \quad \text{equ (1)}$$

$$SS = \frac{3.8416 (0.5)(1-0.5)}{0.0025}$$

$$SS = \frac{0.9604}{0.0025}$$

$$SS = 384$$

Population = 1892

$$\text{New SS} = \frac{384}{1 + \frac{(384 - 1)}{1892}}$$

$$\frac{384}{1 + 0.203}$$

$$SS = \frac{384}{1.203}$$

$$\text{New SS} = 319$$

Therefore, the sample size = 319

However, out of the total questionnaire distributed only 184 were duly completed and returned giving a retrieval rate of 58%.

The research collected data using the primary sources. The questionnaire was the source of primary data hence; the study designed a structured questionnaire numbering ten (10) items. The questionnaire was close ended questionnaire while a five- point Likert-scale responses of strongly agree, Agree, Undecided, Disagree and strongly disagree was used.

The study adopted both descriptive and inferential statistics in analyzing the data. Therefore, the inferential statistics was used in testing the earlier formulated hypothesis and the simple regression analysis which is an inferential technique of examining the effect of the independent on dependent variables was used. The study tests one hypothesis using the linear regression statistical analysis using Statistical Packages for Social Sciences (SPSS). The independent variable is application of computerized accounting system and the dependent variable is performance. The analytical

approaches adopted are the model summary and coefficients. The decision rule is to accept P. value if the alpha value is ≥0.05 otherwise the null hypothesis be rejected.

Data Analysis and Results

Table 1: Computerized Accounting System

S/N	Statement	SA	A	V	D	SD	Mean
1	The bank is completely computerized	63(34.2%)	50(27.2%)	41(22.3%)	20(10.9%)	10(5.4%)	3.74
2	Information computed on the system enhances quality of information dissemination	61(33.15%)	48(26.09%)	44(23.9%)	12(6.52%)	1910.33%)	3.65
3	The computerized accounting system is user friendly	70(30.04%)	37(20.11%)	31(16.85%)	19(10.33%)	2714.67%)	3.57
4	The bank also uses other non-financial information to complements their services	84(45.65%)	32(17.39%)	26(14.13%)	29(15.76%)	13(7.07%)	3.79
5	There are specific guidelines on the application of CAS	100(54.35%)	40(21.74%)	15(8.15%)	14(7.61%)	158.15%)	4.28

Source: Research survey, 2021

Table 1 shows the responses to likert-scale questions, the mean . For the question on whether the bank is completely computerized the responses show that 63 respondents representing 34.2% strongly agreed, 50(27.2%) agreed, 41 (22.3%) were undecided, 20 (10.9%) disagreed and 10 (5.4%) strongly disagreed. The mean value is 3.74 which means that most respondents strongly agreed since the mean value >3.00.

For the question on whether information computed on the system enhances quality of information dissemination 61 (33.15%) strongly agreed, 48 (26.09%) agreed, 44 of the respondents (23.9%) were undecided, 12 of the respondents (6.52%) disagreed while 19 (10.33%) strongly disagreed. This implies that most of the respondents agreed since the mean value 3.65 justify mean > 3.00.

The question on whether the computerized accounting system is user friendly 70 respondents representing (30.04%) strongly agreed, 37 (20.11%) agreed, 31 of the respondents (16.85%) were undecided, 19 respondents (10.33%) disagreed while 27 respondents (14.67%) strongly disagreed. Thus it means that most of the respondents agreed since the mean shows 3.57 justifying > 3.00.

More so, for the question on whether the bank uses other non financial information to complement their services, 84 respondents representing 45.65% strongly agreed, 32 respondents (17.39%) agreed, 26 respondents (14.13%) were undecided, 29 respondents (15.76%) disagreed while 13 respondents (7.07%) strongly disagreed. Thus it means that most of the respondents agreed since the mean shows 3.79 justifying > 3.00.

Finally, for the question on whether there are specific guidelines on the application of computerized accounting system, 100 respondents representing 54. 35% strongly agreed, 40 respondents (21.74%) agreed, 15 respondents (8.15%) were undecided, 14 respondents representing 7.61% disagreed while 15 respondents representing 8.15% strongly disagreed. This implies that most of the respondents agreed since the mean value 4.28 justify mean > 3.00.

Table 2: Performance of the Banking Sector

S/N	Statement	SA	A	V	D	SD	Mean
1	The customers and other stakeholders ate received to be satisfied	68(36.96%)	38(20.65%)	32(17.39%)	18(9.78%)	37(14.67%	3.54
2	I prefer the pattern of my operations than the manual technique	101(54.89%)	42(22.83%)	14(7.61%)	13(7.067%)	14(7.61%)	4.10
3	I do meet up with my tasks on time without feature	86(46.74%)	30(16.30%)	28(15.22%)	25(13.59%)	15(8.15%)	3.80
4	Information reliability is enhanced by my operations	71(38.59%)	36(19.57%)	26(14.13%)	29(15.56%)	19(10.33%)	3.55
5	The level of revenue and patronage is enhanced through CAS application	69(37.5%)	40(21.74%)	33(17.39%)	22(11.96%)	20(10.9%)	3.63

Source: Research Survey, 2021

Table 2 shows the responses to likert-scale questions, the mean. For the question on whether customers and other stakeholders are perceived to be satisfied the responses show that 68 respondents representing 36.96% strongly agreed, 38(20.6%) agreed, 32 (17.39%) were undecided, 18 (9.78%) disagreed and 27 (14.67%) strongly disagreed. The mean value is 3.54 which means that most respondents agreed since the mean value >3.00.

For the question on whether the respondents preferred the computerized pattern of operations than manual approach 101 (54.89%) strongly agreed, 42 (22.83%) agreed, 14 of the respondents (7.6%) were undecided, 12 of the respondents (7.06%) disagreed while 14 (7.6%) strongly disagreed. This implies that most of the respondents agreed since the mean value 4.10 justify mean > 3.00.

The question on whether the respondents do meet up with their tasks without fatigue 86 respondents representing (46.74%) strongly agreed, 30 (16.30%) agreed, 28 of the respondents (15.22%) were undecided, 25 respondents (13.59%) disagreed while 15 respondents (8.15%) strongly disagreed. Thus it means that most of the respondents agreed since the mean shows 3.80 justifying > 3.00.

More so, for the question on whether information reliability is enhanced through their operations, 71 respondents representing 38.59% strongly agreed, 36 respondents (19.59%) agreed, 26 respondents (14.13%) were undecided, 29 respondents (15.76%) disagreed while 19 respondents (10.39%) strongly disagreed. Thus it means that most of the respondents agreed since the mean shows 3.55 justifying > 3.00.

Finally, for the question on whether the level of revenue and patronage is enhanced through computerized accounting system operations, 69 respondents representing 37. 5% strongly agreed, 40 respondents (21.74%) agreed, 33 respondents (17.31%) were undecided, 22 respondents representing 11.96% disagreed while 20 respondents representing 10.9% strongly disagreed. This implies that most of the respondents agreed since the mean value 3.63 justify mean > 3.00.

Data Analysis and Results

Test of Hypothesis

Hypothesis 1

There is no significant relationship between computerized accounting system and performance of banking sector in Nigeria.

Table 3. Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.721[a]	763	.743	.11932	.222

a. Predictors: (Constant), CAS
b. Dependent Variable: Performance

Table 3 shows that the dependent variable (performance) affect independent variable (CAS) as indicated by R of 0.721. The coefficient of determination R^2 (R square) which measures the percentage of the total change in dependent variable that can be explained by independent variable indicating that CAS increase 0.763 which means that computerized accounting system is affected about 76% of performance.

This also implies that a 1% increase in computerized accounting system will lead to about 76% effect on performance. However, this could be overstated so the adjusted estimate for the whole result was explored and it also gives 0.743.

Table 4.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.141	.022		2.314	.000
	CAS	.414	.014	.522	32.62	.000

a. Dependent Variable: Performance

To test the significance of the regression for the two variables computerized accounting system (independent variable) and performance (Dependent variable) the P-value was considered. The result shows that the average performance is 0.141 when computerized accounting system is zero. Again, the t-test value is 2.314 and its sig-value is 0.000 which is less than alpha value of 0.05 hence, it means that it is statistically significant. This implies that without the influence of computerized accounting system the average performance is 0.14. The average rate of performance resulting from computerized accounting system is 0.522. The computerized accounting system value of 32.62 and its sig-value is 0.000 which is less than alpha value of 0.05. It means that it is statistically significant. Hence, single unit change in computerized accounting system is influenced by performance which means that the null hypothesis that there is no significant relationship between computerized accounting system and performance of banking sector in Nigeria is rejected.

Conclusion

Based on the findings from this study the research concluded that application computerized accounting system has been able to improve bank efficiency, speed, accuracy, data security, facilitate meeting of immediate and strategic objectives of the critical stakeholders in the banking industry.

Recommendations

The study therefore recommends that computerized accounting system should be sustained in the banking sector while periodic review is carried out towards improving such operations considering the dynamics of business environment which attracts stiff competitiveness. Again, training of personnel in terms of keeping them abreast of modern trends in computerized accounting is sustained while their motivation is given adequate priority. Though this approach the application of CAS will be sustained.

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