Impact of Accounting Information System on Bank Performance: Case Study of Some Selected Bank in Bauchi Metropolis

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Abstract

This paper tends to look at the impact of accounting information system (AIS) on Bank performance. The key variables of AIS are information quality, System quantity and service quality, the independent variables is Accounting Information System and the dependent variable is Bank performance. The study area is the top banks in Bauchi metropolis. A sample size of 5 Banks was chosen. The study also made use of 108 survey questionnaire containing 31 relevant questions. Descriptive statistics were used to analyst the 71 retrieved responses with the help of statistical package for social science (SPSS). The study found that among the 3 independent variables system quality, information quality has significant impact with bank performance, while the other independent variables which is service quality did not. But the three dimensions of AIS have an explanatory power (coefficient of determination) on bank operational performance and has a significant influence on bank financial performance. Therefore, Banks should improve their system software, secure it and improve in their services rendered as it will enhance stakeholders' value, economic growth, employees ease and of use and customer satisfaction and prevent system security crime.

Keywords: Accounting information system, system quality, service quality, information quality, Bank performance.

1 Introduction

Information Systems are generally designed and implemented to enhance organizational impacts. The rapid changes in technology and the dynamic nature of the business environment, as well as increasing demand from customers, have transformed the activities of making business at both the technical level and strategic level of the organization (Abdallah, A. 2013). The success of organizations depends on their ability to respond to changes in the market environment they are operating. In this way, managers strive to ensure that their organizations successfully adapt to such changes

Accounting Information Systems have been recognized as an effective tool for achieving not only internal changes but also external organizational changes. As such, many organizations, but particularly banks, are left with no other option but to invest in the latest technology such as Accounting Information Systems (AIS) to satisfy the needs of their customers and compete favorably.

The Nigerian banking sector has witnessed a significant transformation over the last several decades with respect to the adoption and usage of technological innovations. Banks in Nigeria have increased their investments in information systems (IS) as a fundamental e-banking tool, capable of yielding significant contributions to their financial results especially in cost efficiency (Adewole, 2013).

Accounting Information Systems enable managers to have relevant and timely information for effective decision making from an operational point of view (AbdulRazzaq, 2003). Investment in IS is less effective when banks continue to struggle to identify the positive outcomes that they hope to achieve from their large investments in IS (DeLone & McLean, 2016). The utilization of IT and the quality of the information systems in the Banking sector have resulted in e-banking, which have strengthened their competitiveness. Bodnar and Hopwood (2012) indicated that Accounting Information System consist of reliability, flexibility, integration accessibility, and timeliness. The authors point out that Accounting Information System have direct effect on profitability and performance. Although factors such as reliability, flexibility, accessibility, integration, and timeliness have been investigated on firm performance (Acharya, Kagan & Lingam, 2008). Accounting Information Systems (AISs) can be defined as ''systems of people, data records and activities that process data and information in an organization, and they include the organization's manual and automated processes aimed at supporting managers (Inghirami, 2013). According to Abubakar and Rasmaini (2012), the application of Accounting information systems has several advantages. First, multiple authorized users can access these systems from anywhere at any time, consolidate account data across departments, offices or territories instantaneously, and generate the updated reports in real-time. Modern economies are highly reliant on the banking industry, a fact that is amply demonstrated by the 2008 world-wide financial crash, So the importance of maintaining effective information quality and service in Banks is critical.

Information Systems (IS) security has become a major concern for modern enterprises and organizations, as most organizational activities and nowadays that depend heavily on information and communication technologies. In response, a plethora of many tools and mechanisms have been developed, covering almost every aspect of IS security. System security is important for the development of confidence in banks, avoidance of financial crisis, and general economic growth and development (Adewole, 2013).

1.2 Statement of the problem

The banking sector have benefited substantially from the application of information technology and systems. The development of the electronic banking allows banks to be effective and efficient in their operations. Thus, Information Systems (IS) is an absolute necessity if Banks want to remain competitive (Acharya, Kagan & Lingam, 2008).

However, the application of IT and IS in banks do not come without problems and challenges. Some of the major challenges is how to maintain an improvement in the quality of information, system and services. The cost of maintaining the system is high especially in the short run. Lastly, absence of Accounting Information System tends to compound Bank challenges.

Bodnar and Hopwood (2012) reports that financial services i.e companies encounter security incidents 300% more frequently than other industries. As such, a cyber-crisis at one or more banks could result in financial catastrophe, not only to customers and Banks, but to a country's financial system as a whole. It is hardly surprising, that 80 percent of leaders in the financial services sector cite cyber risks as a top concern.

Behery and Eldomiaty (2010) revealed that cyber-attackers targeted up to 100 banks, e-payment systems and other financial institutions in 30 countries stealing $1bn within two years. Consequently, a Bank which fails to protect i.e maintain and improve it Accounting Information Systems not only loses it competitive advantage, but also threatens its existence.

1.3 Research questions

Based on the problem statement, the following research questions were framed.

To what extent does System Quality influence Bank performance?

To what extent does Information Quality influences Bank performance?

To what extent does Service Quality influences Bank performance?

1.4 Objectives of the Study

The aim of this study was to determine the impact of accounting information system on Bank performance. This aim shall be achieved through the following specific objectives.

To assess the effect of system quality on Bank Performance.

To analyse the impact between Information Quality and Bank Performance.

   3   To examine the impact between Service Quality and Bank Performance

1.5 Hypotheses of the study

A hypothesis is a tentative statement, yet testable statement, which predicts the relationship between two or more variables. The following hypotheses were derived from the research framework of the study.

$H1_2$: There is no significant relationship between System Quality and Bank Performance.

Ho_2 : There is no significant relationship between Information Quality and Bank Performance.

Ho_3. There are is no significant impact between service Quality and Bank Performance.

2. Literature Review

 Literature on Accounting information system as information quality, system quality, service quality and operational performance and financial performance as Bank Performance were identified and reviewed.

2.   Conceptual Review

2.2.1 Accounting Information System, Accounting speaks the language of business as it records all transactions of an individual firm or other bodies that can be expressed in monetary terms. Accounting is the scheme and art of collecting, classifying, summarizing and communicating data of financial nature required to make economic decisions. Information system is known as "a set of components interconnected with each other on a regular basis in order to produce useful information. Accounting Information System (AIS) is a system that operate functions of data gathering, processing, categorizing, and reporting financial events with the aims of providing relevant information for the purpose of storing information keeping inventories records and decision making, and also provides financial report on a daily and weekly basis (Sealehi, 2011). Accounting Information Systems are designed to improve task performance and efficiency (Bruno, Iacoviello & Lazzini, 2015). Besides contributing satisfaction (Jeong & Stylianou, 2010)

Accounting information system should support the development and execution of strategies at various management levels Turban,shardan and Delen,.(2011).Bordan and Hopwood, (2012). AIS communicates information to users appropriately in a timely manner, in order to assist them in the performance of the functions assigned to them (Abdulrazzaq, 2003). Thus, firms should improve their systems and data processing capacity to match their information needs.

2.2.2 System Quality

Systems quality include Adaptability, Availability, Reliability, Response time, Usability

The system quality can influence use, user satisfaction and individual performance, and consequently effect organizational performance (DeLone & McLean, 1992). The most commonly used measures of system quality are security, ease of use, and efficiency (Hien et al., 2014). System quality is concerned with the technical efficiency of the system, regarding user interface consistency, ease of use, programming errors, and the maintainability of the system.

2.2.3 Service Quality

Service quality include Assurance, Empathy, Responsiveness

Service quality is a factor for business success that leads to loyalty and patronage of customer, larger profitability, lessen cost. Jeong and Stylianou (2010) increased customer satisfaction, long-term economic returns for the firm Josiah and Nancy (2012) and increased intensions of repurchase Service quality is concerned with issues such as responsiveness, assurance, and empathy of the bank. Lam, Than and Pham (2014) indicated that service quality has a strong positive influence on the loyalty of respondents to the company

2.2.4 Information quality

Information quality includes: Completeness, Ease of understanding

Relevance The information quality dimension has received greater attention among scholars in IS effectiveness studies and has been regarded as an important measure for the successful implementation of the systems in organizations (Kanakriyah, 2016).

2.2.5 Bank performance

Banking sector, being an integral part of the financial system, plays an important role of intermediation between savers and investors. This sector is also responsible for arranging funds for the investors for their ongoing and new projects along with providing savers an opportunity to earn profits on their sacrifice of the current consumption. Performance is deemed to be the fulfillment of an obligation. Bank performance is a combination of various aspects which cannot be observed directly but economically important. However, stockholders view performance in terms of the profits made on their behalf, whether or not adjusted for risks taken. Bank performance can be sub-divided into two operational performance and financial performance.

Operational performance which involves customer's satisfaction, service offered by banks, cost of managing the banks, Bank responsiveness and quality of Bank management.

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generates revenues. It can also be used as a general measure of a firms overall financial health over a given period of time (Josiah & Nancy, 2012).

Financial performance which include profitability, customer deposit, return on investment and opening of new branches. Financial performance can be measured in terms of profitability while operational performance can be measured in terms of services rendered.

2.3 Empirical Review

Many researchers such as (Abdallah, 2013) test the impact of the Accounting information systems on the quality of financial statements. They found there is a strong effect of using the accounting information systems on the quality of financial statements.

Zakaria et al. (2017) assess the impact of Accounting information system (AIS) on the users' tasks efficiency. The findings ascertain a significant impact of (AIS) on their task's efficiency related to budgeting, financial reporting, Auditing and financial controlling in the companies. While Wixom and Todd (2005) detect a significant impact of (AIS) on the organizational performance; they also discovered a strong relationship between AIS success and organizational performance

Whereas, Jeong and Stylianou (2010) found that Accounting Information System (AIS) enhance organizational effectiveness especially in global technology advancement, agree with Dameri, Garelli and Ricciardi (2013)., who detect the importance of Accounting information systems, that helps in facilitating decision making and amend organization's environment, structure and requirements of task,

2.4 Research Gap

Based on the review of the extent literature on the variable and the Delone and McLean model of information system, the following gabs have been identified. There are only few researches of IS in the banking sector. Hence this study intends to cover this gap. The model examined the three independent variables on net benefits. This study identified peak operations of the three variables to influence Bank performance.

3. Methodology

The methodology is about the method used in data collection and analysis. It contained the research design which were principally a quantitative design based on survey or cross-sectional survey strategy. The population of the study were determined in this section. Subsequently, the sample size was scientifically determined also. Afterward, the sampling technique which is a simple random were used. Instrument of measuring the variables were adapted from previous studies related to information system. In addition, Cronbach Alpha were employed to assess the reliability. The chapter will determine the validity of the variables through construct and content validity. The data were collected using personal method and lastly, method of data analysis were explained.

3.2 Research Design

This study employed the quantitative research design. The strategy used is a cross sectional method where the respondents were requested to fill a copy of questionnaire only once. The design then seeks perceptual information from the respondent. (Singhry, 2019).

3.3 Population of the study

The population of the study were 156 employees from 5 selected Banks in Bauchi. These Banks are Zenith Bank, Guarantee Trust Bank, Access Bank, Stanbic IBTC and First Bank. These Banks are also operating in Bauchi metropolis (refer to Table 1). The respondent or unit of analysis were all the bank staff excluding security men and cleaners.

3.4 Sample Size and Sampling Technique

The sample size is 108 obtained from the 5 selected Banks. The sample size was obtained from Krejcie and Morgan (1970) of sample size determination. The respondent or unit of analysis were be the employees in these banks as shown in table 1.

$S = X^2 NP (1-P) + d^2 (N-1) + X^2 P (1-P)$

Where,

S = required Sample Size

X^2 = the table value of chi-square for degree of freedom at the desired confidence level 3.841

N=the population size

P=the population proportion(assume to be.50)since this would provide the maximum sample size

d=the degree of accuracy expressed as a proportion (.05)

Table 1 Banks Name

S/N	BANKS	POPULATION: NO OF EMPLOYEES	SAMPLE SIZE BASED ON PERCENT
1	First Bank	33	23
2	Zenith Bank	35	24
3	Guarantee Trust Bank	38	26
4	Access Bank	36	26
5	Stanbic IBTC	14	10
	TOTAL	156	108

Source: Survey, 2019

3.5   Instrument for Data Collection

The instrument that is the questionnaire of the three variables in the study were adopted from previous studies of (2003) related to information system and Bank performance. The instrument for information quality and service quality were adapted from Delone and Mclean (2003) as also use by (Bruno, Iacoviello, & Lazzini, 2015: Dameri, Garelli & Ricciardi, 2013). Jeong, and Stylianou (2010) The measures of Bank performance were adopted and selected from Chaluvadi , Raut and Gardas (2018). Behery, and Eldomiaty, (2010) and Callaway (2011)

3.6   Reliability and Validity

Reliability is the internal consistency of an instrument. This means that the items in the quesionaires was good enough to measure the variables being studied. In this research, the Cronchback alpha method for measuring reliability were used, because the instrument were adopted from established sources. The threshold or cut off mark will be 0.7. Content and construct validity were employed to test whether the items on the questionaire were measured and belong to the variables. The content validity will define whether the variables will measure Accounting information system in banks.

3.7   Method of Data Collection

The data were personally collected by the researcher and possibly with help of research assistant. The research assistant were employed among the bank staff. These enable ease of distribution and collection as well as the confidence of the staff to fill the questionaire.

3.8 Method of Data Analysis

Data collected were analysed by descriptive and inferencial statistic, The descriptive statistic were peformed through the analysis of frequency percent, mean and standard deviation. Similarly, reliability test and factor loading would be done. The inferencial statistic were through linear regression of the three independent variables (IV) and one dependent variables (DV) . All analysis were perform with aid of the Statistical Package for the Social Sciences (SPSS).

4. Data Presentation and Analysis

This chapter discussed the result of the study, the result was on 71 usable questionnaires collected from 156 permanent staff of the 5 Bank selected i.e. Access Bank, GT Bank, Stanbic IBTC Bank, First Bank and Zenith Banks. The data was analyzed quantitatively using SPSS, version 23.0. SPSS was used for statistical analysis including descriptive statistic, correlation and multiple regression. Assessment of the raw data before the data entry, questionnaires were examined one by one and checked whether they were completed correctly

Table 2: Descriptive statistics of the Variables

	N	Mean	Std. Deviation
System quality	71	3.2230	.82252
Information quality	71	3.6401	1.18857
Service quality	71	3.5822	1.08548
Bank Performance	71	3.588	1.12418

4. Descriptive Statistics

The mean, standard deviation factor loading and reliability of construct are presented in the table. The mean value of the construct range between 3.2, 3.6 and 3.5. This means that, the mean score and satisfactory as they are above the cut off mark of 2.5. Similarly, the score of standard deviation are acceptable as they are below 1.5 threshold value. The score of both the factor loading and reliability (using crouchback's alpha) are satisfactory as they are all above the 5 cut off point

Table 3 Reliability

	Cronbach's Alpha
System quality	.961

Information quality	.897
Service quality	.904
Bank Performance	.894

. From the reliability table 3, system quality had a reliability construct of .961 which is above the .50, information quality had .897 which is also above .50 service quality had .904 also above .50 and Bank performance had a reliability construct of .894 which is also above the Cronbach's Alpha of the above .50. Reliability was assessed based on crouchback alpha of 0.7 for an existence variables and measurement. Based on the table 3, all items for the 5 variables have reliability value of above 0.7. therefore, they have satisfied the requirement for reliability test.

All the variables are reliable. This is because they have a Cronbach alpha of above .50

Table 4: Factor loading Component Matrix

	Component 1
System quality	.821
Information quality	.954
Service quality	.931
Bank Performance	.956

Table 5   KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.915
Bartlett's Test of Sphericity	Approx. Chi-Square	1570.575
	Df	351
	Sig.	.000

Table 5 shows that the sample number of 71 respondents is adequate for this study with a value of .915 representing 91.5 per cent. It is also significant at .000

4.2 Normality test

Normality test is one of the basic assumptions for testing a regression model and in these studies, result from skewness and kurtosis analysis were used the test the normality of data. The result of skewness ranges between -.146 to -1.098 while the result of countess's ranges between -0.3 to.123 Dameri and Ricciardi (2013) argue that skilled value of + or – 2.58 is acceptable for a

normality test based on the table 2, the skewness and kurtosis value are within the +_ 2.58 threshold. Therefore, the data have satisfied the normality test.

Normality test is a basic requirement for regression analysis based on the suggestion Josiah A. and Nancy (2012) Normality test are evaluated from skewness and kurtosis. According to the Author, the threshold should be between + or _ 2.58 to achieve an acceptable level of normality. Based on the result on the table 11, all skewness value and kurtosis value are within -1.46 and .360 this also indicated that the data is normal and therefor satisfactory for further analysis.

Similarly, the mean of 5 point scale is 2.5 while the mean of all variables range from 3.1831 to 3.8169. This also show that the mean result is acceptable across all items.

Table 6   AIS and Bank performance

Model	R	Adjusted R Square	Std. Error of the Estimate
	.921	.846	.44131

Table 7 ANOVA[1]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	75.026	1	75.026	385.235	.000[b]
	Residual	13.438	69	.195		
	Total	88.464	70			

a. Dependent Variable: Bank Performance

Predictors: (Constant), Accounting information system.

The Anova tested the significant of the regression model i.e. the relationship between AIS and can be deduct from the table that AIS explains a significant amount of the variance in BP essential information in the Anova table are DF (differences), the F value and probabilities v can be seen from the table 7 (1,69) is equal to 385.235, P is < 0.001 therefore, it can be con that the regression is statistically significant.

Table : 8 coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

		-.213	.201		-1.063	.291
1	(Constant)					
	Accounting information system	1.092	.056	.921	19.627	.000

The unstandardized coefficient (B Column) gives the value of the intercept (for constant row) and the shop of the regression line from the AIS Row. This gives us the FF regression equation BP = -.213 + 1.092 =AIS the standardize coefficient columns gives the contribution of AIS to BP from the table 8, if can be seen that AIS contributed .921 to BP the E- value (-1.063 19.627, p<0.01) shows that the intersect of AIS and BP is signicantlly difference from zero furthermore, the T- value for AIS (t=19.627, P< 0.001) show the regression is significant.

SQ, IQ, SERQ and Bank performance

TABLE :9   Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.932[a]	.869	.863	.41649

a. Predictors: (Constant), Service quality, System quality, Information quality

The R square of .932 indicates that as SQ, IQ and SERQ increases and this is a positive correlation r = .932 based on person correlation . this is statistically significant.

The adjusted R2 of .869 the R2 is sensitive to the three variables SQ 1Q, SERQ. the standard error of the estimate of .41649 measures the variability in the relationship between SQ, 1Q , SERQ and Bank performance.

Table .10   ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	76.842	3	25.614	147.661	.000[b]
	Residual	11.622	67	.173		
	Total	88.464	70			

a. Dependent Variable: Bank Performance

b. Predictors: (Constant), Service quality, System quality, Information quality

The Anova tested the significant of regression model i.e the relationship between SQ,SERQ,1Q and Bank performance can be deduct from the table 21 that AIS explain a significant amount of the variance in Bank performance. So that essential information in the Anova table and DF (differences) the F Value and probability value. It can be seen from the table 17(3,67) is equal to 147.661 P is < 0.001 therefore, it can be concluded that the regression is statistically significant

Table :11   coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.021	.206		.102	.919
	System quality	.181	.084	.132	2.150	.035
	Information quality	.628	.094	.664	6.665	.000
	Service quality	.194	.103	.188	1.879	.065

a. Dependent Variable: Bank Performance

The unstandardized coefficient (B Column) gives the value of the intercept (for constant row) and the shop of the regression line from the AIS Row. This gives us the FF regression equation BP = -.021 + .181+ 628+194 =AIS. the standardize coefficient columns gives the contribution of SQ,SERQ,1Q to BP from the tables above, if can be seen that AIS contributed .932 to BP the T- value (.1.02, 2.150, 6.665,1.897 p<0.01) shows that the intersect of SQ,SERQ,1Q and BP is significantly different from zero. 23 Summary of hypotheses tests

Table 12

SN	Hypothesis	Alternate hypothesis
HO1	There is no significant relationship between Accounting Information System and Bank Performance	Supported
HO2	There is no significant relationship between System Quality and Bank Performance	Supported
HO3	There is no significant relationship between Information Quality and Bank Performance	Supported
HO4	There is no significant relationship between Service Quality and Bank Performance	Not supported

4. Discussion of Findings

The aim of this study was to test the impact of Accounting Information System on Bank Performance. The study employed the Delone and Mcclean theory of Information System success based on three variables which explained the Accounting Information System such as System Quality, Information Quality and Service Quality. Based on the result of hypothesis test in Table. and, the following findings were discussed

1.The finding shows that accounting information system has significant impact on Bank Performance, this finding is consistent with the study conducted by Kanakriyah (2016) who indicated that Accounting Information can be used to improve Bank Performance, especially financial decisions.

2.The findings show that System Quality has significant impact on Bank Performance and the finding is consistent with the study conducted (Hsieh & Wang, 2007). Although numerous studies had suggested significant relationship e.g (Hsieh & Wang (2007) and Gorla et al. (2010).

3. The finding shows that Information Quality has significant impact on Bank Performance and is consistent with the study conducted by Hien, Nguyen and Cuong (2014). However, high Information Quality in information content context (accuracy, completeness, relevance to decision making) can cause high organizational impact in terms of market information support (i.e., anticipating customer needs) and internal organizational efficiency (high-quality decision making).

4. The findings that Service Quality has no significant impact on Bank Performance is surprising. This is because studies such as khan and fasih (2014) suggested a significant impact of Service Quality on Bank Performance. Therefore, the study is suggested a further investigation in this relationship.

5. Conclusions

The paper tests the Impact of Accounting Information System on Bank Performance in Bauchi Metropolis. To achieve this purpose, the paper employed the Delone and Mclean theory of information success. Based on research problems and research questions, the research study predicted that only Information Quality and system Quality has significant impact on the Bank Performance while Service Quality did not.

6. Recommendations

Based on the research problems, research objectives, study findings as well as conclusion of this research, the researcher therefore recommended that;

Bank should improve their systems software i.e. their software should be upgraded. This will enhance shareholders value and economic growth. Bank should secure their system software so as to prevent system security crime. The service providers in the Banks should be friendly with customer in order to enhance employee ease of use and customer satisfaction. The information in the bank Bank should be up to date.

7. Limitations of the Study

Some of the constraint the researcher faced when conducting the study at area the area as follows; Although there are numerous literature on factors and motivation on Accounting information system on bank performance. Most of them were from countries other than Nigeria. There was difficulty customizing the factors in Nigerian perspective. The study is limited by the sample size due to the small numbers of employees in the Banks. Further research should

investigate all the banks in the study area. There was difficulty in convincing the staff to fill in the questionnaire. This was because they were too busy.

8. Contributions to Knowledge

The study made the following contribution to knowledge:

The study shows how the theory of information system can be applied to improve the Bank performance. Theoretically, the study improves the Delone and McLean Model of Information System Success by introducing Bank performance. Similarly, the model which was used to determine the use of accounting information system in universities is now extended to the banking sector. Practically the study brings to light that Information Quality and System Quality are important factor for improving bank performance by identifying the strategies to make their Accounting information system more efficient, effective and secured. This will increase their performance. Increase in Bank performance shall positively enhance employee welfare, shareholder value. The study also shows that Banks should enhance their operations to influence Bank Performance as this will develop customers confidence in the banking sector knowing that their funds will be secured. Customers will also accept the use of information technology and engage in e-banking

Reference

Abdallah, A. (2013). "The Impact of Using Accounting Information Systems on the Quality of Financial Statements Submitted to the Income and Sales Tax Department in Jordan" European Scientific Journal, Special/Edition 1, 41-48.

AbdulRazzaq, M. Q. (2003). Accounting information systems, computerized house international scientific publishing and distribution, the House of Culture for Publishing and Distribution. Journal of Money, Credit, Banking, 35(2).

Abubakar, A. and Rasmaini B. T. (2012). The impact of ICT on banks' performance and customer service delivery in the banking industry. International Journal for Latest Trends Finance Economic Science, 2, 1

Acharya, R. N., Kagan, A., & Lingam, S. R. (2008). Online banking applications and community bank performance. International Journal of Bank Marketing, 26(6), 418–439. doi:10.1108/02652320810902442

Adewole, J. O. (2013). The impact of automatic teller machines on the cost efficiency of Nigeria. Journal of Internet Banking and Commerce, 18(3), 1–21

Behery, M. H & Eldomiaty, T. I (2010)." Stakeholders oriented banks and bank performance" International journal of commerce and management 20 (2) pp120-150

Bodnar, G.H. Hopwood, W. S (2012).: Accounting information systems, 11th edn. Prentice Hall,

Bruno, E., Iacoviello, G., & Lazzini, A. (2015). The adequacy of information systems for supporting the asset quality review process in banks. Evidence from an Italian Case Study.

Lecture Notes in Information Systems and Organisation, 59-75. https://doi.org/10.1007/978-3-319-26488-2_5

Callaway, S.K (2011) Internet banking and performance: The relationship of website traffic rank and bank performance, American Journal of business, 26 (1) 12- 25.

Chaluvadi, S. Raut, R and Gardas B.B (2018) '' measuring the performance efficiency of Banks in a developing economy" The case study of Indian Public Sector VS Private Sector Bench making: An International Journal 25 (2) 575 –568

DeLone, W. H., & McLean, E. (2016). Information systems success measurement. Foundations and Trends® In Information Systems, 2(1), 1-116. https://doi.org/10.1561/2900000005

DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. Information Systems Research, 3(1), 60-95. https://doi.org/10.1287/isre.3.1.60

DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. Journal of Management Information Systems, 19(4), 9-30. https://doi.org/10.1080/07421222.2003.11045748

Dameri, R., Garelli, R., & Ricciardi, F. (2013). The didactic challenge of accounting information systems and ERPs for business schools: A proposal for the Italian universities. Lecture Notes in Information Systems and Organisation, 337-349. https://doi.org/10.1007/978-3-642-35761-9_21

Hien, L. T., Nguyen, T. L., & Cuong, P. H. (2014). Key determinants of information system effectiveness – An empirical case in Lac Hong University. International Journal of Information Technology and Business Management, 32(1), 1-14. Retrieved from www.jitbm.com

Hsiao, H.C., Chang, H., Cianci, A.M., Huang, L.H., 2010. First financial restructuring and operating efficiency: Evidence from Taiwanese commercial banks. Journal of Banking and Finance 34(7), 1461-1471

Hsieh, J. P.-A. & Wang, W. (2007). Explaining employees' extended use of complex information

Jeong, B. K., & Stylianou, A. C. (2010). Market reaction to appAn empirical investigation. Information & Management. pp. 47(3), 176-187.

Josiah A. and Nancy K (2012). The relationship between electronic banking and financial performance among commercial banks in Kenya. Journal of finance and investment analysis. 1 (3) 99-103

Kanakriyah, R. (2016). "The Effect of Using Accounting Information Systems on The Quality of Accounting Information According to Users Perspective In Jordan" European Journal of Accounting, Auditing and Finance Research, 4 (11) 58-75.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30, 607-610. https://doi.org/10.1177/001316447003000308

Lam, T. H., Than, L. N., & Pham, H. C. (2014). Key determinants of information system effectiveness: An empirical case in Lac Hong University. International Journal of Information Technology and Business Management, 32(1),1-14

Odero, A. (2012). "The Effect of Accounting Information System Quality on Financial Performance of SMEs in Nairobi County" Master Degree, University o Nairobi School of Business.

Rahman, I. (2008.). The role of information technology on banking industry. Nigeria Time Book Review, July 12.

Sealehi, M. & Abdipour, A. 2011. A study of the barrier of implementation of accounting information systems. Journal of Economic and Behavioral Studies, 2 (2) 76-85 [17]

Singhry, B.H (2019) Research method made essay second edition 31-46.

Turban, E., Sharda, R., Delen, D. (2011): Decision support systems and intelligent systems, 9th edn. Prentice Hall, Saddle River

Wixom, B. H., & Todd, P. A. (2005). A theoretical integration of user satisfaction and technology acceptance. Information Systems Research, 16(1), 85-102. https://doi.org/10.1287/isre.1050.0042

Zakaria, W., Ilias, N. and Wahab, N. (2003). "A Survey on the Impact of Accounting Information System on Tasks Efficiency: Evidence from Malaysian Public Sector Agencies", International Review of Management and Marketing, 7 (1) 183-190.