

An Evaluation of the Efficacy of Information Technology on the Performance of Selected Banks in Ogbomoso Area of Oyo State, Nigeria.

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Abstract

This paper evaluates the efficacy of information Technology on the performance of some selected banks in Ogbomoso area of Oyo State, Nigeria. Three operating banks were selected whereby 103 customers of Intercontinental Bank, Skye Bank and United Bank for Africa were selected using purposive sampling technique. Both descriptive and inferential statistics of a two tailed test were adopted.

The study revealed that customers' perception on promotion of promptness and efficiency in service delivery by IT does not differ significantly in the selected banks. It was also revealed that IT has been a source of increased productivity for the banks whose have deployed it. This is a direct result of the processing speed of computers and other IT infrastructures, which reduce the time spent in attending to each customer and create new ways through which customer can be served.

To this end, it was recommended that Nigerian banks should from time to time invest in IT infrastructure that will enhance their service delivery. This will further enhance productivity and create greater opportunities for profitability.

Key Words: Commercial Banks, Information Technology (IT), Performance, Efficacy.

1. Introduction

Since the advent of computers in the early twentieth century, and their application to various businesses, there has been significant and unarguable increase in man's efficiency and productivity. This translated to increase productivity in the businesses in which computers were used. Hence IT can be described as one of the driving forces of globalization (Somuyiwa, et al 2006).

In the past, processing of loans by banks used to be a tedious job, as it involved lots of paperwork. In recent times however, the adoption of IT has allowed for the use of workflow management systems application software which has contributed greatly to the automation of loan process thereby allowing credit officers to manage, prioritize, and measure new mortgage software files. Also documents creation has improved in such a way that multiple users can perform parallel activities on the same loan application making it easy to divide work between the loan processing team. IT also allows for a situation where the repayment schedule of loans could be applied without interference (Aigbiremolen and Aigbiremolen, 2004).

Vohra, et al (2002) argued that successful financial institutions must be able to make rapid, accurate and successful credit decisions. To do this, such institutions must embrace the technovation. This argument clearly underpins the relevance of IT to the processing of loans.

E-banking is the automated delivery of traditionally banking products and services directly to customers through electronic and interactive communication channels (Ovia, 2006). It is also the use of computer and telecommunication technologies for the execution of banking operations. Vohra et al (2002) contend that electronic banking has been around in the form of Automated Teller Machines (ATMs) and telephone transactions. However, today e-banking has addition of internet banking which has revolutionised the banking operations. Other forms in which e-banking is carried out include the use of Point of Sale (POS) devices, electronic bill payment, and electronic transfer of funds among others.

According to Awe (2007) the most visible face of e-banking in Nigeria has been the transformation of retail banking through ATMs. This was a direct consequence of the broad guidelines issued in 2004 by the Central Bank of Nigeria (CBN) on e-banking. Prior to 2004 there were just forty-one ATMs in the whole country (CBN,

2005). In the post-consolidation era, however the number has increased to thousands as a result of competition amongst the twenty-five commercial banks. ATM provides for the customers 24hours a day service, seven days week. This has enhanced service delivery as queues have reduced in the banking hall. As for the bank, the ATM relief staff from performing routine transactions so that more profitable sales-oriented work can be done; it provides a continuous service outside normal hours, and also prevents customers from withdrawing money that is not in their account.

The internet is a global computer network that links computer networks all over the world by satellite and telephone, connecting users with service networks such as e-mail and the World Wide Web (Encarta, 2008). Ovia (2006) observes that there is a marked increase in internet penetration in Nigeria, but he argues that there is room for growth if Nigerian banking customers are to take full advantage of the opportunities open to them via the internet, like bank customers in other countries. Vohra *et al* (2002) highlighting the benefit of IT stated that where a customer is faced with having to settle recurring bills such as insurance premiums, mortgages and other utility bills, can pre-authorize direct withdrawals to pay such bills automatically. This will save banks huge sum of money in making and processing paper cheques. For the customers it is convenient and safe, as it removes stress on the part of the bank, and can also serve as additional source of revenue.

The issue of security as it relates to the adoption and deployment of IT in banking operation in Nigeria is a crucial one as it borders on the integrity of banks and their continuous survival. Ovia (2006) stated that issues of cyber security are causes of major challenges as banks continue to contend with identify thieves, '419' fraudster, issue of data integrity and protection of customer information as well as threats from hackers, viruses and worms. This view explains the multidimensional nature of the problem of security.

It is against this background that this paper attempts to examine the efficacy of IT on the performance of selected banks in Ogbomoso area of Oyo state Nigeria.

2. Application of Information Technology to Banking Services

Application of IT to banking services has been made possible by the advent of technological breakthrough in IT, and it has become a major innovation in the practice of banking. This breakthrough and its wide range application areas have brought relief to the agitating mind of many bank executives.

Information Technology now allows banks to get closer to their customers, find out what they really want, and deliver a wider range of services at low costs (Gill, 1996). Patrick (1985) reports that technology in banking is used to:

- i. Permit greatly expanded customers' base services to be handled
- ii. Substantially reduce the real cost of handling payments
- iii. Free the banks from traditional constraints upon time and place
- iv. Introduce new products and services

This has led to what has been described as banking automation. Automation is the use of machines instead of people to do a job or an industrial process. The packages used take care of many detailed and time consuming processing activities in the banks. Agboola (2002) discussed the dimensions in which automation in the banking industry can manifest. They include:

- I. Bankers Automated Clearing Service: this involves the use of Magnetic Link Character Reader (MICR) for cheque processing. It is capable of encoding, reading and sorting cheques.
- II. Automated Payment Systems: Devices used here include Automatic Teller Machine (ATM), Plastic cards and Electronic Funds Transfer.
- III. Automated Delivery Channels: these include interactive television and the internet.

3. Information Technology and Management Services in Banks

When information is relevant, adequate, accurate and timely they aid decision making. Decision Support system (DSS) is a computer system that assists the management decision-making by combining data, sophisticated analytical models and tools, and user friendly software into a single powerful system that can support semi-structured or unstructured decision making (Laudon and Laudon, 2001).

Ibraheem (2000) identifies various areas in which the application of information technology to banking services has assisted management. These areas include corporate planning, control asset and liability management, legal services and manpower development. All these have assisted in boosting the value of payoff on IT-investments and invariably bank performance.

4. Methodology

The study was carried out in three (3) commercial banks in Ogbomoso area of Oyo state, Nigeria. Customers of Intercontinental Bank, Skye Bank, and United Bank for Africa constituted the population of the

study, whereby 103 IT beneficiary customers were selected using random sampling technique. Primary data were collected with the aid of structured questionnaire and were analyzed using descriptive statistics analysis such as percentage, frequency distributions and table presentations.

These methods were employed to analyze the impact of IT on reduction of time wasting in banking operations, cost of bank transaction, customer satisfaction and interaction between cashiers and customers using Likert scale to measure the parameters. In order to examine the association between impact of IT on banking operation in the study area, central tendency, measure of dispersion and Z-two tailed test were used.

5. Result and Discussion

The efficiency of IT on the performance of the selected banks was analysed in terms of reduction of time wasting in banking operation, cost effectiveness of IT and customers' satisfaction. The details of these identified variables are as follows.

Table 1 shows that 88.35% of the respondents in the study area agreed that Information Technology has indeed contributed to the reduction of time wastage in banking operation, while about 7.77% disagreed with the view. A mean of 4.26 derived from the table further gives credence to the assertion that IT has reduced time wasting in banking operations and this corroborate the earlier findings of Adeosun (2006) who established that introduction of ICT has in no small measure reduced the time wastage in banking transaction and has improve service delivery of Nigeria Bankers.

From table 2 52.42% of the respondents agreed that IT has significantly contributed to reduction in the costs of banking operations to customers, whereas, 30% of the respondents disagreed with this view and about 17% were undecided. A mean of 3.35 on the Likert scale is slightly above the position of indifference, which does not confirm unequivocally that IT actually reduces the costs of bank transactions to customers.

On the other hand, table 3 shows that about 76.7% of the respondent customers that IT has certainly contributed positively to the satisfaction derived from the services provided by their banks, 10.68% disagreed with the view and about 12.62% were undecided. A mean of 3.96 also is favourable to the assertion that IT has contributed positively to customer satisfaction.

In order to ascertain customers' perception on the efficiency of IT in the study are, Standard deviation technique was adopted whereby, frequency and mean distribution of the selected banks' customers were computed so as to construct the deviation table. Table 4 therefore shows the frequency distributions and the respective means for the response of the customers of the three banks.

$$S_i = \sqrt{11.1435/35} = 0.5643$$

$$S_s = \sqrt{10.9724/36} = 0.5521$$

$$S_u = \sqrt{18/32} = 0.75$$

S_i, S_s, S_u denote the standard deviations for the samples from Intercontinental bank, Skye bank and UBA respectively. The two tailed Z-test is based on the responses of the selected banks' customers using Likert scale of mean distribution as shown in table 4.

Table 5 revealed the distribution of the respondents' responses to the promptness and efficiency of service delivery in the three selected banks in the study area.

The Z-value of the three scenarios are shown below

Inter – Skye

$$Z_{i-s} = \frac{|4.47-4.29|}{\sqrt{\left(\frac{0.5643}{35}\right) + \left(\frac{0.5521}{36}\right)}} = 1.0148$$

Inter - UBA

$$Z_{i-u} = \frac{|4.47-4.00|}{\sqrt{\left(\frac{0.5643}{35}\right) + \left(\frac{0.75}{32}\right)}} = 2.3630$$

Skye - UBA

$$Z_{s-u} = \frac{|4.29-4.00|}{\sqrt{\left(\frac{0.5521}{36}\right) + \left(\frac{0.75}{32}\right)}} = 1.4728$$

The critical Z-value for a two-tailed test at 0.01 is ± 2.575 from the normal distribution table. Hence, the calculated Z values of the three selected banks as shown above are less than the critical value at 0.01 level. Thus, the differences between the means in all cases are not significant at 0.01 level of significant.

Therefore, the result revealed that customer's perception on IT as regards promptness and efficiency in

service delivery does not differ significantly from one bank to the other. Since promptness and efficiency in service delivery are at the core of customer service, the implication of this is that the perception of customers' on IT is the same in all the banks in the study area. Hence, IT may not be a source of competitive edge on its own.

6. Conclusion

The study established that Information Technology has increased the pace at which banks process customers' enquiries and transaction, thereby contributing to promptness in service delivery. It also revealed that IT has been a source of increased productivity for the banks that have deployed it. This is a direct result of the processing speed of computers and other IT infrastructures, which reduce the time spent in attending to each customer and create new ways through which customers can be served. The implication of this is that IT empowered banks end up in serving more customers per time.

It is against this background that these recommendation were made that Nigerian banks should from time to time invest in IT infrastructures that can be used to better serve their customers. This will further enhance customer services, productivity and create greater opportunities for profitability,

More so, banks in Nigeria should as well put in place appropriate IT policies which should among other things ensure that bank employees are carried along (through training and development) adequately with every decision on IT so that the technology may be handled properly to achieve competitive edge and other expected results.

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Table 1: Distribution of impact of IT on reduction of time wasting in banking operations

Score (x)	Frequency (f)	fx	Mean	Percentage (%)
SA: 5	48	240	4.26	46.60
A:4	43	172	4.26	41.75
U:3	4	12	4.26	3.88
D:2	6	12	4.26	5.83
SD:1	2	2	4.26	1.94
TOTAL	103	439	4.26	100

Source: Research survey, 2010

Table 2: Distribution of effect of IT on the cost of bank transaction

Score (x)	Frequency (f)	fx	Mean	Percentage (%)
SA: 5	19	95	3.35	18.44
A:4	35	140	3.35	33.98
U:3	18	54	3.35	17.47
D:2	25	50	3.35	24.27
SD:1	6	6	3.35	5.83
TOTAL	103	345	3.35	100

Source: Research survey, 2010

Table 3: Distribution of effect of IT on customer satisfaction

Score (x)	Frequency (f)	fx	Mean	Percentage (%)
SA: 5	32	160	3.96	31.07
A:4	47	188	3.96	45.63
U:3	13	39	3.96	12.62
D:2	10	20	3.96	9.71
SD:1	1	1	3.96	0.97
TOTAL	103	408	3.96	100

Source: Research survey, 2010

Table 4: Distribution of means of customers responses

Score (x)	INTER		SKYE		UBA	
	F	Fx	F	Fx	f	Fx
5	12	60	18	90	8	40
4	21	84	17	68	17	68
3	2	6	1	3	6	18
2	0	0	0	0	1	2
1	0	0	0	0	0	0
	35	150	36	161	32	128
Mean	4.29		4.47		4.00	

Source: Research survey, 2010

Table 5: Table of Deviations

Score (x)	INTER			SKYE			UBA		
	f	(x-x) ²	f(x-x) ²	f	(x-x) ²	f(x-x) ²	f	(x-x) ²	f(x-x) ²
5	12	0.5041	6.0492	18	0.2809	5.0562	18	1.00	8.00
4	21	0.0841	1.7661	17	0.2209	3.7553	17	0.00	0.00
3	2	1.6641	3.3282	1	2.1609	2.1609	6	1.00	6.00
2	0	5.2241	0.0000	0	6.1009	0.0000	1	4.00	4.00
1	2	10.8241	0.0000	0	12.0409	0.0000	0	9.00	0.00
	35		11.1435	36		109724	32		18.00

Source: Research Survey, 2010