



IMPACT OF COMPUTER- BASED OFFICE TECHNOLOGIES ON COMMERCIAL BANKING OPERATIONS IN RURAL AREAS OF OSUN STATE

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Abstract

The focus of this study was to determine the effect of application of computer-based office technologies on commercial banking operations in Osun State rural areas. Sixty managers and 120 supervisors were randomly sampled as respondents from population of 162 managers and 324 supervisors of these banks. Data collected by means of a seventeen - item questionnaire were analyzed using, mean scores and standard deviations to answer the three research questions. T - test statistic was employed to test the null hypothesis at 05 level of significance. The findings revealed that computer - based office technologies have enhanced current and savings account operations; improved the handling of payments and withdrawals and facilitated the cleaning house operations of commercial banks. However, the statement of accounts production and electronic money transactions were still lowly enhanced in the rural areas. Conclusion was drawn and recommendations were made to the effect that the computerization of banking operations should be intensified in the rural areas and that banking staffers should be retrained for greater efficiency in ICT operations.

Key words: *computer-based office technologies, banking operations, rural areas, Osun State.*

Introduction

Banking as a key sector of the economy provides the community with money balance and payments arrangements. The banking laws of each economy provide the operational definitions and functional classifications which govern banking practices in that economy. Banking therefore means whatever the operating banking law in an economy defines it to be. Aderibigbe (2013) asserted that banking is a business of receiving deposits on current, savings or other accounts, paying or collecting cheques drawn or paid in by customers, provision of finance, consultancy and advisory services relating to corporate and investment matter; making or managing investment on behalf of any person; and the provision of insurance marketing services and capital market business or such other services as the governor of the Central Bank of Nigeria, may by gazette designate as banking business.



According to Ogwuma (2013), the fundamental role of commercial banks in the economy has been to intermediate funds between surplus and deficit economic units. In the process of carrying out this primary task, banks, have found themselves performing a number of functions which include, the mobilization of savings, stimulation of investment and economic growth, assistance in resource allocation, boosting of international trade and promotion of the payment system. The conventional commercial banking functions, as highlighted by Aderibigbe (2012) include:

- i) Receiving deposits on current, savings or other accounts;
- ii) Paying or collecting cheques drawn by paid in by customer;
- iii) Provision of finance or credit facilities;
- iv) Cleaning house activities through the Nigeria interbank settlement system;
- v) Capital market issuing house activities like underwriting and;
- vi) Insurance services.

Igweike (2011) and Ibitoye and Ajayi (2011) reported that, in Nigeria, Commercial banking started in 1891 and the modern banking system in 1893 with the establishment of the British Bank of West Africa (BBWA), subsequently renamed Standard Bank of Nigeria (SBN) and recently First Bank of Nigeria (FBN) Plc. Ndekwu (2012) affirmed that commercial banking started in Osun State, particularly in Osogbo, which is now the State headquarters in 1926 with the Bank of British West Africa (BBWA). He asserted that, there was a brief closure during the second World War for one reason or the other and later reopened in 1945. As at now, according to the Central Economic Planning office (CEPO 2012) of Osun State, there are one hundred and eleven branches of the different types of commercial banks in the State. Most of these banks employ computer - based office technologies in their operations. Twenty five of them are located in areas officially classified as rural. Many of these areas are challenged by poor supply of electricity and internet availability. Usage of computer-based office technologies are therefore still at rudimentary levels in these areas.

Kolawole (2015) and Sunmonu (2016) variously see technology as a branch of knowledge that deals with the industrial arts and sciences and the utilization of that knowledge in the production of the material necessities of a society. Computer which the British Computer Society (2016) described as a machine which is under the control of a stored programme, automatically accepts data, processes data and supplies the result of that processing, is one of the technological development products. It always accepts data from an input device either for further processing later, or for documents schedules or management report (Anderson, 2016). Several electrical equipment developments of recent technologies are computer - based. They deal with the introduction and application of new automation in offices like personal computer, Automatic System note processing system,



internet service, electronic fund transfer system, automatic clearing system, magnetic link character recognition (MICR) System, among others. Ogwuma (2016) asserted that the increasing volume, complexity, competitiveness, customer sophistication and globalization of financial services have induce a number of technological development in the Nigeria banking industry and Osun is not left out. However the extent to which these technologies have permeated the rural areas of Osun state in unknown,

Statement of the Problem

Banking operations throughout Nigeria have been considerably influenced by the development and deployment of new computer-based office technologies and ICT applications, resulting in greater operational speed, efficiency and security. While the new technologies do have some disadvantages especially in the area of security, there is no doubt that ICT hardware and applications have had salutary effects on the operations of commercial banks especially in the urban centres. However, it is claimed that over 70 percent of Nigerians live in rural areas (Olasore. 1988). Even in Osun state, which is ranked as the most urbanized state in Nigeria, 55 per cent of the residents live in rural areas, most of which have little access to electricity, pipe-borne water and internet. The extent to which ICT-enabled banking has permeated these communities is therefore in serious doubt.

Banking is an important factor in entrepreneurship, economic and national development. National efforts to return the youths to village-based agriculture cannot hope to succeed if basic elements of commerce are unavailable in quality or quantum. National efforts to promote the development of rural areas have unfortunately rarely factored in the need to provide banking facilities. With the introduction of on line banking facilities, the gap between urban and rural areas may be expanding beyond easy repairs unless attention is paid to the e-banking needs of the rural areas in Osun State, hence the need to investigate the impact of new technologies on commercial banking operations in rural areas of osun state

Purpose of the Study

The main purpose of this study was to determine the effect of application of computer - based office technologies on commercial banking operations in Osun State and specifically to determine how:

1. computer-based office technologies have enhanced current and savings operations of commercial banks in rural areas of Osun State;.
2. computer-based office technologies have improved the Handling of payments and withdrawals in commercial banks in rural areas of Osun State, and;
3. computer-based office technologies have facilitated the Clearing House Operation of Commercial Banks in rural areas of Osun State.



Research Questions

The following research questions were formulated to guide this study, based on the specific purposes:

1. How have computer-based office technologies enhanced the current and savings operations of commercial banks in rural areas of Osun State?
2. How have computer-based office technologies improved the Handling of payments and Withdrawals in commercial banks in rural areas of Osun State.
3. How have computer-based office technologies facilitated Clearing House operations of commercial banks in rural areas of Osun State?

Hypothesis

The following null hypothesis will be tested at 0.05 level of significance:

- H0: There is no significant difference between the mean ratings of commercial bank managers and supervisors in relation to how computer - based office technologies have enhanced current and saving account operations of commercial banks in rural areas of Osun state.

Methodology

A descriptive survey research design was used for this study. The sample consisted of 180 respondents made up of 60 managers and 120 supervisors drawn from the population of 162 managers and 324 supervisors currently working in the Commercial Bank in Osun State. The instrument used for gathering the data was a 17-item questionnaire developed from intensive literature reviewed on the topic.

The instrument was scrutinized for face validity by three specialists in the field of study. The test - retest method was used to determine the reliability of the instrument. The responses obtained from the first and second administration of the questionnaire were analyzed using Pearson Product-Moment Correlation Coefficient. The computation yielded a reliability co-efficient value of 0.92.

The instrument was administered and collected by the researcher with the help of trained research assistants. The data were collected on 5 point Likert - type scale and analyzed using mean and standard deviation to find answers to the three research questions. The scale was graduated as follows: 0.00-1.49, 1 point, very low extent; 1.50-2.49, 2 points, low extent; 2.5-3.49, 3 points, fair extent; 3.50-4.49, 4 points, high extent, and 4.50-5.00, 5 points, Very high extent. One null hypothesis was tested using *t* - test statistics to ascertain the degree of relationship between the mean score rating of bank managers and those of the supervisors at 0.05 probability level of significance.



Data Analysis and Discussions of Findings

The following scale was used for analysis.

Research Question 1

How have computer - based office technologies enhanced the Current and Savings account operations of the commercial banks.

Table 1: Extent of Current and Savings Operations Enhancement N =180

No	Items Statement	X	Sd	Remark
1.	Accurate deposit interest rate calculations	2.73	1.12	Fair extent
2.	Statement of Account Production	2.91	0.90	Fair extent
3.	Simplicity of Current Account Operation	2.83	0.91	Fair extent
4.	Automated Saving System	2.63	0.87	Fair extent
5.	Electronic Ledger Posting	2.72	0.93	Fair extent
6.	Electronic money as alternative to cash and other payment instrument.	2.62	0.86	Fair extent

Results as could be seen from table 1 show that items I - 6 received mean scores between 2.62- 2.91. The current and savings account operations of commercial banks could therefore be said to be influenced to a fair extent by the application of the computer - based office technologies on banking operations in the rural areas of Osun State. The low standard deviation ranges (0.66 to 1.12) indicate that the responses cluster around the mean, suggesting no serious divergence in respondents perceptions.

Research Question 2

How have computer-based office technologies improved the handling of payments and withdrawals in commercial banks in the rural areas of Osun State?

Table 2: The Extent of Improvement on Handling of Payments and Withdrawals Operations. N=180

No	Items Statement	X	SD	Remark
1.	Reduction in customers' waiting hours	2.88	0.93	High Extent
2.	Reduction in the number of payment cashiers	2.83	0.86	High Extent
3.	Effective fund transfer	2.88	0.71	High Extent
4.	Prevention against fraud and forgeries during withdrawals.	2.92	0.88	High Extent
5.	Eliminating risk associated with physical cash during withdrawals.	2.71	1.01	High Extent
6.	Obtaining a quick up to date bank balances before making withdrawals,	3.12	0.93	High Extent



The result on table 2 shows that the items received mean scores ranging between 2.71 and 3.12 which indicates that the application of computer - based office technologies has improved the handling of payment and withdrawals in commercial banks in the rural areas of Osun State only to a fair extent. The standard deviation of the responses range between 0.71 and 1.01 which indicates a high degree of agreement among the respondents.

Research Question 3

In what ways have computer - based office technologies facilitated Clearing House Operations of commercial banks?

Table 3: Extent to Which Clearing House Operations are Facilitated by Office technologies

N = 180

No	Items Statement	X	SD	Remark
1.	Transfer of funds	4.34	0.69	High Extent
2.	Automated clearing of financial instruments	4.41	0.73	High Extent
3.	Reduction in the clearing cycle through Automated Clearing System.	4.42	0.81	High Extent
4.	The use of Magnetic Ink Character Reader (MICR) for effective clearing of cheques	3.58	0.96	High Extent
5.	Processing large volume of bank document.	4.05	0.90	High Extent

From table 3, all the five items statements received mean scores between 3.58-4.42 and were therefore accepted that the computer - based office technologies have facilitated the clearing house operation of commercial banks in rural areas to a high extent. The low standard deviation ranges (0.69 to 0.90) indicate that the responses cluster around the mean, suggesting no serious divergence in respondents perceptions.

Hypothesis

There is no significant different between the mean rating of commercial bank managers and supervisors on how computer - based office technologies have enhanced Current and Savings Operations of commercial banks.

To test this hypothesis, the t - statistical test two was used. The result of the test is shown in table 4.



Table 4: Summary of Data from Test of Hypothesis

Item No.	Item Statement	Managers		Supervisors		t-cal	t-crit	Decision
		X ₁	S ₁	X ₂	S ₂			
1.	Accurate deposit interest rate calculations.	2.71	0.8	2.74	1.1	1.33	1.96	Accepted
2.	Statement of Account production.	2.90	0.8	2.93	1.1	1.81	1.96	Accepted
3.	Simplicity of current account operations.	2.83	1.03	2.82	1.01	0.24	1.96	Accepted
4.	Automated saving system.	2.61	1.05	2.66	1.00	1.2	1.96	Accepted
5.	Electronic ledger posting.	2.62	1.01	2.65	1.03	0.41	1.96	Accepted
6.	Electronic money as alternative to cash and other payment instruments.	2.62	1.2	2.63	0.8	0.62	1.96	Accepted

N1 = 60, N2 = 120; df178; t = tab 1.96 at P < .50

The result from the test of null hypothesis shows that for all the listed items, the calculated t was less than the table t at 0.05 level of significance. The null hypothesis that there is no significant difference between the mean rating of commercial bank managers and supervisors on how computer - based office technologies have enhanced Current and Savings Operations of commercial banks in rural areas of Osun state is supported.

Summary of Findings and Discussion

The result of the study clearly shows that computer based technologies have had minimal influence on the operation of commercial banks in the rural areas. The research reveals that computer - based office technologies have modestly enhanced the current and savings operations of commercial banks, improved the handling of payments and withdrawals in commercial banks and facilitated the clearinghouse operation of commercial banks. This is not very surprising as numerous authors have highlighted the extraordinary impact of computers on business operations. The opinion of managers and supervisors as regards the impact of computer - based office technologies on current and savings operations of commercial banks were not significantly different. Anderson (2017) and many other writers have described the use of electronic money as a sure sign of sophistication in any economy. The study's finding is however at variance with that of Okeke (2011) who found that the influence of technology on modern banking operations has been overwhelming. In respect of rural banking in Osun State, the influence of ICT has been modest, not overwhelming. This suggests that there remains a wide room for improvement. Makeson (2016) asserts that in developing African countries, national development will have to be driven by dwellers in the rural areas who account for a large proportion of the population and are responsible for a large chunk of the GDP. In Nigeria, agriculture is responsible for the



preponderant portion of the Gross Domestic Product. If the contributions of farmers and other dwellers in the rural area are to be optimized, greater attention may have to be paid to the provision of state of the art banking facilities and services in rural areas.

Conclusion

The results of the study indicates that the operations of commercial banks in rural areas of Osun State have been influenced only to a moderate extent. Current and savings account operations have been influenced by computer based office technology to a fair extent, while payment and deposit operations have been influenced to a high extent. The operations of clearing house operations have also been influenced to a high extent.

Recommendations

For banks to optimize the impact of computer technology, the following suggestions are proffered:

1. Appropriate computer - based office technologies should be utilized to expedite the production of statements of account in rural areas of Osun State
2. Managers and supervisors of commercial banks in rural areas of Osun State should encourage electronic money as alternative means of payment other than cash and other payment instruments
3. The commercial banks in Osun State should endeavour to send their managers and supervisors on regular retraining and retraining especially in the aspects of computer - based office technologies' application on banking operations.
4. Government should adopt creative means of ensuring electricity supply in rural areas so that they can also enjoy the benefits of the e world
5. Internet connectivity should be improved in Nigeria's rural areas. Government should find means of developing internet connectivity in rural areas.

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