

**Impact of Regulatory Concerns on Information Communications Technology (ICT)  
Usage in Microfinance Banks in Southwest Nigeria**

**ADESOKAN, Joseph Ayantoso**

Department of Accounting,  
Faculty of Management Sciences  
Ladoke Akintola University of Technology, Oyo State, Nigeria  
Email: [ajadesokan@lautech.edu.ng](mailto:ajadesokan@lautech.edu.ng)

**OYEWUMI, Hassan Kehinde**

Department of Accounting,  
Faculty of Management Sciences  
Ladoke Akintola University of Technology, Oyo State, Nigeria  
Email: [hkoyewumi @lautech.edu.ng](mailto:hkoyewumi@lautech.edu.ng)

*Email of Corresponding Author: [ajadesokan@lautech.edu.ng](mailto:ajadesokan@lautech.edu.ng)*

**Abstract**

The application of modern technological facilities for the purpose of enhancing effective communications in the society is referred to as Information Communications Technology (ICT). Through improvements in technology, banks have continued to change their way of operations and service delivery in line with changes in client's needs and sophistications. The paper assessed the effect of Regulatory Concern on the usage of Information Communications Technology products on microfinance banks operations in Southwest Nigeria. Copies of questionnaire were distributed to 187 employees of microfinance banks in Lagos and Oyo states to examine the study hypothesis. Descriptive statistics and ANOVA were employed as analytical tools for the study. The result showed that regulatory concern has a significant effect on ICT usage in microfinance banks in Southwest Nigeria. The study recommends that regulator's intervention should be sought by the Nigerian microfinance bank major stakeholders to support common software development, and to assist on capacity development of the staff of microfinance banks towards the applications, and usage of ICT.

**Key words:** *Regulatory concern; Information Communications Technology; Usage.*

## **Introduction**

Information and Communications Technology (ICT) has introduced new ways of rendering efficient and cost effective banking services and products to the clients, thereby having a positive effect on banking operations. The ICT products include automated teller machines (ATMs), point of sales (POS) and internet banking (Okoye *et al.* 2019; Sing, *et al* 2002). Consequently, banks have found themselves at the forefront of technology usage for the past three decades. Innovation and competition motivate banks to invest more on Technology and Information to attain huge returns, entice great number of customers, and take advantage of the positive effect that ICT usage offers business. Effective use of an ICT system could add value to an organization. Muteteri (2015), opined that Electronic banking system such as ATM, pay direct, electronic check conversion, mobile telephone banking and E transact has a huge impact on bank performance since they increase profitability, decrease bank cost of operations, and increase bank's asset and efficiency.

The Nigerian government has single out microfinance as an economic and social way out for ensuring improved contact of the poor, low income earners and the helpless groups, to access financial and social services, and all-encompassing economic growth. To that effect, the Microfinance Policy, Regulatory and Supervisory Framework for Nigeria was launched on the 15th December, 2005. In the established framework, it is required as a condition precedent to the commencement of operations of a newly licensed microfinance bank to have appropriate management information systems (MIS), internal controls and procedures, including manuals of operations (CBN,2005). Hence, the justification of Regulatory Concern as one of the environmental factors to be examined in this study.

## **Research Hypothesis**

**H<sub>01</sub>:** Regulatory concern has no significant effect of on ICT products usage in Microfinance banks in the Southwest Nigeria.

## **Conceptual clarifications**

### **Information Technology**

Technology was defined to be "systematic knowledge and action, usually of industrial processes but applicable to any recurrent activity". In offering channels and techniques for exploit, technology formerly enhances and pull from a resource base where theory and practical relate and compact. On a broad level, technology might be viewed as possibly as specified method of getting things done. Also, we might say that technology is a classified, transmissible process for resolving problems. According to Kochen (1981), Technology influences in three phases. First, it allows us to perform that which we are now performing, rather in a better, faster and inexpensive; second, it permits us to fix that which we cannot fix now; and third, it modifies our way of life. Information technology is a current and all-inclusive term that defines the entire range of procedures for gathering, storing, broadcast, recovery and dispensation of information. It might, be stated however, that communication systems are vital to information technology as well as computers. Consequently, there are a conjunction of three elements of technologies: computers, micro-electronics and communications. Differently put, diverse type of technologies, methods and products have joined together to offer new electronic scopes to information management. This variety is called new information technology (Goldberg, 2008). It is imperative to take notice that information technology is not only concerned with novel bits of product but with abundant wider range of information happenings. Information technology includes such diverse things as print, book, computers, reprography, broadcasting, and the telephone network.

### **Information Communications Technology**

Information has been considered the most important asset of an establishment or a society. Without proper and sufficient amount of information, an organisation or a society will not be able to make the right decision. ICT enables an organisation or a society to access large amount of information as well as to communicate and transfer information from one place to another at very rapid rate. The internet has created a global marketplace and a global competition between businesses. The success of any business bodies today and in the future depends on their ability to operate in this global marketplace. ICT provides the ability for an establishment to manage and use information, as well as to communicate with various parties, customers,

suppliers and distributors all over the world, 24 hours a day. ICT also enables business outfits to buy and sell their products online, which allows trading to be done more efficiently.

Business in the twenty-first century operates in knowledge economy or digital economy. In this economy, knowledge and information intense products and services are becoming key ingredients in creating wealth. In developed countries, for example the United States of America, knowledge and information intense products and services now contribute 60% of the Gross Domestic Product (GDP) and employ nearly 55% of the work force. In order to be successful in this knowledge economy, business concerns must be able to optimise the flow of information and knowledge within the establishment as well as to exploit the institutional knowledge resources.

### **Concept of Microfinance Bank**

The Regulatory and Supervisory Framework for the Nigerian microfinance banks (Mfbs) was launched by CBN (Microfinance Policy), to give power to the weak and underprivileged persons by improving their right to use factors of production, typically capital. In realizing the objectives of this stage of its financial improvements programmes, the CBN attempts to reform and review the capital status of the previously community banks, to originate underneath three units of microfinance banks. The apex bank lately reviewed the least capital desires for Microfinance banks in Nigeria via a circular dated march 7, 2019. The central bank has reviewed the classes of microfinance banks desiring to ensure sustained operations of microfinance banks in the remote, unserved and underserved zones of the economy. Accordingly, unit microfinance banks shall comprises two Tiers: Tier 1 unit microfinance bank, saddled to operate in the city and high density bankable areas; and Tier 2 unit microfinance bank, viewed to operate lonely in the less city, unserved and underserved zones (CBN, 2019). Arising from the aforementioned, the smallest start-up capital requirements in respect of the classes of microfinance banks were reviewed as follows:

1. Tier 1 unit microfinance bank ₦200, 000,000 (Two Hundred Million Naira).
2. Tier 2 unit microfinance bank ₦50, 000,000 (Fifty Million Naira).
3. State microfinance bank ₦1, 000, 000,000 (One billion Naira).
4. National microfinance bank ₦5, 000, 000,000 (Five billion Naira).

## **Regulatory Authorities**

The two bodies saddled with the regulatory authorities over banking service in Nigeria are the central bank of Nigeria (CBN) and the Nigeria deposit insurance corporation (NDIC). Thus, they both oversees the microfinance bank. While the CBN issues the operational license upon satisfaction of some pre- operational conditions, the NDIC insures deposit among other oversight functions. On account of supervisory activities, the CBN/NDIC during bank supervision and examination focus on the main aspects of banking operations. These include capital requirement, loan concentration, liquidity ratio, provisioning, internal control and management among others.

However, it is mandatory for an operational license seeking microfinance bank, to have in place, some appropriate management information systems, internal controls, enterprise risk management framework and procedures including manuals of operations, before an approval in principle license can be issued by CBN to such a microfinance bank to commence business.

## **Central Bank of Nigeria (CBN)**

Arising from the release of the framework for regulation and supervision of microfinance banks' otherwise known as the policy document of the government by the CBN on the 15<sup>th</sup> December, 2005, regulatory roles and supervisory duty of the banks by the CBN and NDIC became an integral share of the mechanism for ensuring safe and sound banking practices.

### **(i) Licensing and Supervision of Microfinance Banks'**

Issuance of license of microfinance banks' shall be the duty of the CBN. A registered bank shall be obligatory to include "microfinance bank", after its name. The totality of such designations shall be listed by the Corporate Affairs Commission (CAC), in agreement by means of the Companies and Allied Matters Act (CAMA) 1990.

### **(ii) Constitution of a Nation-wide Microfinance Advice-giving Committee**

A committee to be known as National Microfinance Consultative Committee (NMFCC) will be established by the CBN to provide direction aimed at the execution and overseeing of

Microfinance policy. The committee membership will be determined through the CBN as time runs out. The Microfinance Care agency of the CBN will function as the Committee Secretariat.

**(iii) Loan Reference Bureau**

Owing to the unique features of microfinance business, a loan reference bureau, which mean to deliver information upon microfinance customers and assist decision making, is needed. Along this line, the present Credit Risk Management System of the CBN will be enlarged to oblige the requirements of the microfinance sector.

**(iv) Rating Agency**

The launch of private rating agencies for the microfinance sub-sector is intended by the CBN for rating microfinance institutions, particularly the likes of NGO-MFIs that propose to convert to microfinance banks.

**(v) Creation of a Microfinance Development Fund**

So as to encourage the growth of the sub-sector and make available for the extensive funding desires of microfinance banks', a Micro Finance Sector Development Fund will be established. The Deposit shall make available needed support intended for the growth of the sub-sector in areas of refinancing loan, human resource building, and additional publicity activities. The Fund would be obtained through governments and from soft loans through the global development funding institutions, along with multifaceted and mutual development Foundations.

**(vi) Prudential Requirements**

The CBN identifies the uniqueness of microfinance business and shall accordingly positioned a suitable regulatory and prudential thresholds to monitor the operations and actions of the microfinance banks'.

**(vii) Management Certification Process**

Also to fill the practical skills gap, particularly in the midst of operators of microfinance banks', the strategy identifies the necessity to established a suitable capacity building programme for

Mfbs. Along this line, the CBN intends to effect a microfinance bank' management certification programme to add to the attainment of suitable operational skills for the management team of microfinance banks'. An evolution time of twenty-four (24) months will be permitted in lieu of the kick-off of the study, taking effect on or after the date of the policy launch.

#### **(viii) Saving Insurance Scheme**

Meanwhile Mfbs remains deposit-money banks, then to be able to strengthen public confidence upon them, Mfbs intends to qualify for the deposit insurance arrangement of the Nigeria Deposit Insurance Corporation.

#### **Nigeria Deposit Insurance Corporation (NDIC)**

Risk Minimisation was the centre focus of the Deposit Insurance Scheme (DIS) designed, and being executed by the NDIC by means of the below listed mandate:

##### **Deposit Guarantee**

Perhaps the most important and peculiar function of the corporation is the deposit guarantee. By way of an insurer, NDIC secures the set off of deposits up and around the maximum limit in agreement with its statute on the occasion of collapse of an insured bank.

##### **Banking Supervision**

The sole aim of the corporation supervision on banks is to protect depositors; ensure monetary stability; encourage an effective and well-organized payment system; and to encourage competitive and innovative financial system. Institutional supervision is an important component of the Nigeria deposit insurance structure as it strives to lessen the possible risk of collapse and ensures the dangerous and unreliable financial practices do not go unrestrained.

##### **Failure Resolution**

Another important role of the NDIC is to make sure that failing and liquidated banks are set on within the time and in a well-organized way.



## **Bank Liquidation**

Bank liquidation is an option of the last result through the corporation for financial institutions that refuse to answer to failure resolution controls. Liquidation procedure includes arranged and well-organized closure of the collapsed banks' with minimum disturbance to the financial system, profitable realisation of resources and payment of claims to savers, creditors and possibly, investors.

## **Roles**

The Nigeria Deposit Insurance Corporation Act 2006, stipulates in Section 2 of the roles for the Corporation as follows:

- i. Covering all taking liabilities of approved banks' and any other financial institutions (hereinafter referred to as "insured institutions") doing business in Nigeria contained by the meaning of Sections 16 and 20 of this Act in an attempt to bring about confidence in the Nigerian financial system;
- ii. Offering support to insured banks' in the interest of savers, in the event of looming or real financial problems of banks mostly wherever postponement of payments is endangered, and avoiding impairment to public confidence in the financial system;
- iii. Insuring disbursements to savers, in the event of about to happen or real suspension of disbursements by insured banks' equal to the maximum as catered for in section 20 of this Act;
- iv. Supporting financial establishments in the preparation and application of guidelines so as to safeguard sound financial practice and healthy competition in the midst of guaranteed banks' in the nation; and
- v. Following some other methods essential to attain the purposes of the corporation on condition that such methods and actions runs in tandem with the mandates of the corporation.



## **Empirical Review**

Nabilah *et al.*, (2013) worked on Applying Technology: Issues in Microfinance Operations in Malaysia. The work identified and examined the matters involving the current workings of the MFIs. Past literatures were reviewed; finding showed that issues like information flow and security, right to use of credit, in addition to cost were inhibiting the microfinance institutions from rightly deploying technology to run their operations. It was recommended that, appropriate configuring of both basic and supplementary system of technology is ensured by the application of MIS, customer centered technology, as well as procedure automation technology. Although their findings revealed that the gaps occasioned by many issues around the Islamic microfinance operations might be resolved with the improvement of innovation, great number of MFIs were refusing the application of technology owing to the awareness of the huge cost and absence of contribution from customers, which, sequentially, tell on the request and source in the market.

Joseph (2009) carried out a study on ICT usage in MFIs in Uganda. Both quantitative survey and descriptive research approaches were used, the paper established the extent to which ICT has been used in the microfinance institutions in Uganda. The barriers notwithstanding, the ICT usage in MFIs has remained on the increase; and various tools and technologies were deployed by some MFIs to manage costs, ensure competence and efficiency in their operations, improve productivity, and enhancement of outreach to the poor. The paper concluded that available ICT policies such as tax exemption on computer hardware are not sufficient to achieve the desired growth. Consequently, a necessity for progressive policies, that relate to ICT-based services and software to speed up ICT usage particularly in MFIs.

Based on the review of the previous works, it will be safe to infer that no scholar has worked on the effect of regulatory concern on ICT usage in microfinance banks' as far as my knowledge can carry, either in the developed or developing economies of the world. This constitute a research gap that was adequately filled by this study.

## **Methodology**

Three local government areas with the largest concentration of the total microfinance banks from Lagos -West senatorial district (Agege, Alimosho, and Ikeja), and three agrarian local

government areas (Orire, Orelope, and Saki west) from Oyo- North senatorial districts were purposively selected for the study. Systematic random sampling was used to select, 7 microfinance banks in Lagos west senatorial district, and 3 microfinance banks in Oyo North senatorial district. The locations of the microfinance banks in each of the local government areas were determined using convenience sampling, 20 copies of questionnaire were distributed to each of the 10 banks, out of which 187 copies were filled and returned. The existence of cash centers and retail outlets were considered in choosing the selected banks.

The adapted model for the study was as shown below;

$$Y_{it} = \alpha_0 + \beta_1 \text{ATM}_{it} + \beta_2 \text{BVN}_{it} + \beta_3 \text{CCTV}_{it} + \beta_4 \text{POS} + \beta_5 \text{SMS} + e_{it} \dots\dots\dots 1$$

$Y_{it}$  = Mfbs Operations; proxy by customers patronage

ATM = Used for payments, transfer, deposit and air time purchase.

BVN= Offers protection for Mfbs customer accounts against unauthorized access

CCTV= Coordinating information, keeping of records, and preventing check fraud.

POS = Cementing values of retail banking, and helped track Mfbs personnel.

$\alpha_0$  is the Base Constant

$e_{it}$  is the error term which account for other possible factor that could be affected by Y that are not factored in the model.

## **Result and Discussion**

### **Perception of respondents on the effect of regulatory concern on the usage of ICT products**

The result in table 1 revealed that 100 percent of the sample respondents were of the opinion that regulatory concern has a peculiar effect on ICT products usage in microfinance banks in Southwest Nigeria. This could be said to occur due to total compliance by the banks with the requirement of the CBN that, regulatory and supervisory guidelines for microfinance banks requires that a suitable MIS be put in place to complement risk assessment ranking standards of these institutions in an ongoing basis(CBN, 2006). The finding thus makes it safe to affirm that regulatory concern was an integral part of the mechanism for ensuring safe and sound banking practices through the usage of ICT for microfinance banks operations in Southwest Nigeria.

**Table 1: Distribution of respondents on relationship between regulatory concern and ICT Usage**

Regulatory concern has a peculiar influence on ICT usage	Frequency	Percentage
Total	187	100

Source: Researcher's Field Survey 2021.

**ANOVA result showing Effect of Regulatory Concern on ICT Usage in Microfinance Banks in South-western Nigeria.**

Analysis of variance statistical techniques was used to examine the effect of regulatory concern on ICT products been used in Microfinance banks' operations in Southwest Nigeria. The findings in table 2 below revealed that POS ( $F=147.96$ ); BVN ( $F=39.14$ ); ATM ( $F=29.32$ ); SMS ( $F=2.34$ ); CCTV ( $F=1.34$ ); were significant at  $p<0.05$ , save CCTV ( $F=1.34$ ). The result implies that regulatory concern has a positive impact on ICT usage in microfinance banks in Southwest Nigeria, and the positive effect has a significant trend. The finding shows that the usage of POS, BVN, ATM and SMS by microfinance banks' for their operations has the enforcement of regulatory bodies. The null hypothesis, stated that regulatory concern has no significant effect on ICT products in Southwest Nigeria is therefore rejected.

**Table: 2. ANOVA showing Effect of Regulatory Concern on ICT products usage**

Source	Partial SS	df	MS	F	Prob > F
<b>Model</b>	89.5439836	9	9.94933151	62.38	0.0000
CCTV	.214308542	1	0.214308542	1.34	0.2480
POS	47.1991532	2	23.5995766	147.96	0.0000
SMS	0.74630509	2	0.373152545	2.34	0.0493
BVN	12.4862387	2	6.24311933	39.14	0.0000
ATM	9.35147547	2	4.67573773	29.32	0.0000
<b>Residual</b>	28.2314175	177	0.159499534		
<b>Total</b>	<b>117.775401</b>	<b>186</b>	<b>.633201081</b>	<b>R-squared = 0.7603</b>	<b>Adj R-squared = 0.7481</b>

Source: Researcher's Field Survey 2021.

## **Conclusion**

From the results of the analysis it was established that Regulatory concern has a positive significant effect on the usage of Short messaging services, Automated teller machine; Bank verification number, and Point of sales, but the Close circuit television effect was not significant for Mfbs operations in Southwest Nigeria. BVN as one of the ICT products is enforced by microfinance banks on accounts holders for compliance on the instructions of the regulators-CBN and NDIC. Banks verification number imparts Mfbs operations by offering a unique identity that can be verified across the Nigerian banking industry to individual bank account holder, as it provides protection for microfinance banks customer so as to safeguard their asset, and also reduce queue in banking hall against unauthorized access. The study recommended that regulator's intervention must be sought by the Nigerian microfinance bank major stakeholders to support common software development, and to assist on capacity development of the staff of microfinance banks towards the applications, and usage of ICT.

## **References**

- CBN (2005) Circular on Microfinance Policy, Regulatory and Supervisory Framework for Nigeria. Available online @ [www.cenbank.org/out/Publications/.../microfinance%20policy](http://www.cenbank.org/out/Publications/.../microfinance%20policy). PDF. Retrieved on 30/01/2019, from the website.
- CBN (2006), Minimum Requirements and Standards for a Suitable Management Information System (MIS) in Microfinance Banks (MFBs). ofid/do/cir./vol.1/482. Abuja.
- CBN (2019) Re; Review of minimum Capital requirement for Microfinance Banks in Nigeria. (March 7, 2019). FPRID/DIR/GEN/CIR/07/024.
- Goldberg, (2008). System analysis and technology. William C .Brown publishing Dubuque.
- Joseph K.S (2009). ICT Usage in Microfinance Institutions in Uganda. The African Journal of Information Systems. Vol.1, issue 3.
- Nabilah Rozzani and Abdul Rahman (2013). Technology: Issues in Applying Microfinance Operations, Middle-East Journal of Scientific Research 17 (3): 374-381, 2013.
- Kochen, M. (1981). Technology and Communication in Future. JARS. 148-157.
- Okoye, L.U; Omankhanlen, A.E.; Okoh, J.I.; Ezeji, F.N. and Achugamonu, U.B. (2019), Imperatives for deepening customer service delivery in the Nigerian banking sector through engineering and technology-based channels, International Journal of Civil Engineering and Technology, 10(1), 2156-2169.

Sing, S., Chhatwal, S.S., Yahyabhoy, T.N., and Yeo, C.H., (2002). Dynamics of innovation in E-banking, in 10th European Conference on Information Systems, Gdansk, Poland, university of Gdansk. International Journal of Academic Research in Business and Social Sciences. February 2013, Vol. 3, No.2.