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The Effect of Information Communication Technology in Ensuring Financial Inclusion in Cameroon

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The effect of Information Communication Technology in ensuring Financial Inclusion in Cameroon

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ABSTRACT

With the advent of globalization and the development of ICT which affect every human activity. Presently we are living in the world of highly advanced technologies which gives various economic opportunities and contribute to create values for any business organization. The development of information and communication technology (ICT) shaped the lifestyle of many enterprises especially the banking industries. This actually help both the banked and the unbanked segment of the population to enjoy appropriate financial services at an affordable price. This paper identifies the factors that determine the usage of ICT by Cameroonians in the rural areas and its effect on accessing appropriate and affordable financial services by all members of the population especially the vulnerable. Data was collected from both primary and secondary sources and analyze and interpreted. A conceptual model is developed that measures the effect of Information and Communication technology on financial inclusion. The main finding indicates that the development in ICT has a significant effect in fostering financial inclusion in Cameroon.

KEY WORDS: Information and Communication Technology (ICT), Financial Inclusion, Banks

1. INTRODUCTION

Information and communication technology is the integration of hardware, software, networks and database and telecommunication devices. So, the applications developed by the information and communication technology any business organization to design their products or services based on the needs of their customers. According to Sarma (2012) financial inclusion refer to a process that ensures easy access, availability, and use of the formal financial services for all economic actors. Financial inclusion focuses on providing formal, accessible financial services to all persons and enterprises. Leeadhar (2005) reveals that financial inclusion is defined as the delivering banking facilities to the vast sections of low-income group people at a very low affordable cost. According to World Bank Global Findex Database 2014, Cameroon has 31% of adults are unbanked and only 53% of adults in the country have an account in a formal financial institution. Several initiatives are taken by the government for delivering the financial products and services at an affordable cost especially for the people from the vulnerable groups in the society through various technologies like biometric ATMs, smart cards, mobile money, debit cards and credit cards. This system of approach basically reduces the stepping of customers at the bank branches thereby reduces the workload of bank officials.

Objectives:

1. To identify the factors that determines the usage of ICT in rural areas in Cameroon.

2. To review the effect of Information and communication technologies on accessing financial services by rural people in Cameroon.

3. To develop a conceptual model that measures the impact of ICT on financial inclusion.

Factors determining the usage of ICT in rural areas in Cameroon: the Cameroon Government has considered Financial Inclusion and the add-on financial services as an important priority to unlock the growth potential of the country. The role of technology has a greater contribution in achieving the objective of financial inclusion. Infrastructure of ICT plays an important role for increasing the outreach of financial services in rural and unbanked areas through ATMs, internet and mobile banking technologies. Vaniki Joshi Lohani (2015) treats education as a moderating variable between the usage of ICT and online banking services. Ali Vosough, 2015 analyzed three different factors for the adoption of ICT in rural areas namely 1) Individual Factor – Age, Gender,

Level of Education, Household's knowledge level of computer, Amount of land under cultivation, Distance of ICT centers, Ownership of farmland, Number of pieces of agricultural land and experience in cultivation. 2) Environmental factor – Attitude of Households towards ICT, use of agricultural communicational channels, Contact with agricultural extension agent. 3) Technological Factors – Relative advantage, Compatibility, Observe ability and Trial ability.

Effect of ICT in Financial Inclusion: In Cameroon there exist high dormancy rates reflected in the recently opened bank accounts that have not been operated regularly by the bank customers. One of the priority objectives listed in the new national development strategy 2020-2030 (NDS30) is to promote financial inclusion with fetching features such as zero balance accounts, overdraft facilities and free life insurance coverage. Under this scheme nearly 97% of new accounts were in micro finance sector s in which 72% of the account contains zero balances.

Technological advancements for Financial Inclusion: BEAC have directed the commercial banks to avail a basic savings account known as no-frills account for the people which a minimum amount of zero balance can be maintained with minimum charges to make access by the people from the vulnerable groups in the society.

Mobile Banking: the government has intended to implement various innovative ideas to strengthen Financial Inclusion by ensuring the provision of financial services using the mobile phones. Mobile banking is considered as a delivery channels for an effective implementation of financial services in rural areas. Mobile banking acts as a bridge between financial institutions like banking sectors and financial excluded regions. Mobile money loans are been granted base on past dealings

Point of Sale (POS) and Automated Teller Machine (ATM): the ATM which is an electronic machine that enable customers to conduct banking transactions without meeting the physical banker.

Credit Card: It is the credit card that provides reasonable credit facilities to the citizens in which repayment can be rescheduled and extended time period is up to four years.

Unique Identification Number (UID): It is a 12-digit unique number which enables bank accounts at a very low cost for all Indian residents for the purpose of facilitating social security benefits.

Real Time Gross Settlement (RTGS): It allows transfer of fund at a real time that is the instruction will be processed at the time they receive the cash.

Electronic Clearance Service (ECS): It is an electronic process of payments or approval of transactions used by the financial institutions to make mass payment of money from one bank account to many bank accounts for distributing salary, interest amount, monthly pension and payment of dividend.

National Electronic Fund Transfer (NEFT): It permits bank customers to transfer their money to any operative bank accounts in the country.

G2P Payments: Government-to-Person payments can be done through Mobile banking technologies. Digitalizing these G2P payments has a greater impact on the entire economy which enrolls transparency, security, safety and efficiency.

Core Banking Systems: It is said to be anywhere and anytime banking. The customers can utilize the banking services at any branches of the bank.

Automated Teller Machines (ATM): It is the cash withdrawal computerized technology which can be operated by the customers without any help of bank officials. It has been designed in such a way to facilitate banking services for a rural people of unbanked areas in a very simplest way. It includes Biometric ATM, Mobile ATM, and Micro ATM.

Biometric ATM: It is an ATM machine designed for an illiterate rural people to withdraw cash. In which need for PIN number has been eliminated. Only thumb impression of the customer is required for authentication.

Mobile ATM: ATM services are facilitated to the rural people through van for those customers who own biometric cards.

Micro ATM in fuel stations: It is an alternative of ATM service at low card. It will be located at areas were rural people used to visit frequently like petrol bunks, markets etc., for the sake of withdrawal of cash and balance enquiry.

Biometric Handled Device: BC uses this handled device for the thumb impression or detecting the retina of the customers for identification. It facilitates audio confirmations and makes receipt for the transactions. Smart cards and POS: Smart card contain all the details of the customer

including finger print and photograph. The customer can swipe the smart card to deposit or withdraw cash whenever necessary at point-of- service terminal.

Monitoring Business Correspondents (BC): Bank uses General Packet Radio Services (GPRS), Geographical Information systems (GIS) and Global Positioning system (GPS) to scan the place of BCs and connect with them. GIS is a web-based technology it has all the details of existing bank branches, Automated Teller Machines (ATMs), business correspondents (BCs) and state-cooperatives.

Conceptual framework:

Perceived Risk: Beck & Brown (2011) have analyzed the advantages and risks factors of internet banking for commercial banks. The perceived risk of internet banking was disclosed due to the bottom level of computer literacy, lesser security, lack of access to internet, for the major part of populations and operational issues related with the computers for many of the banks. The findings of the study suggested that banks should endow more to improve the awareness of customer about internet banking products and to perception of risk in internet banking. Shahina &Qureshi (2013), states that using ICT and Business Correspondent model the banks capture customer data and ensuring compliance to know your customer norms. Banks faces several challenges through this model. BC is generally a third party appointed by the banks by BEAC regulations and working with a third party generates reputation of risk. Therefore, evolution of Management information system is necessary for monitoring and capacity building of BCs, thereby achieving reduction in risk mitigation and to perform monitoring process by the banks. To avoid risk of frauds features smart cards should be enhanced by using cryptographic smart cards that contains digital signature algorithm that can be used for digital signature and secure authentication. Global Findex survey (2014) narrated that people could manage their risk factors, not only when they find a safest place for retaining their money, but also to have an access of timely credit facilities from the formal financial institutions to fulfill their basic and emergency needs. Rahmath Safeena et.al, (2011) in his study he analyzed the factors that has a greater influence on customer's adoption of internet banking in Cameroon and the authors opine that perceived usefulness, Perceived ease of use and perceived risk has higher impact on usage of internet banking among customers. Nganga et.al, (2013) has addressed the internal and external factors that hamper mobile and agency banking in Kenya. The authors have stated that capabilities of an organization, perceived benefits and

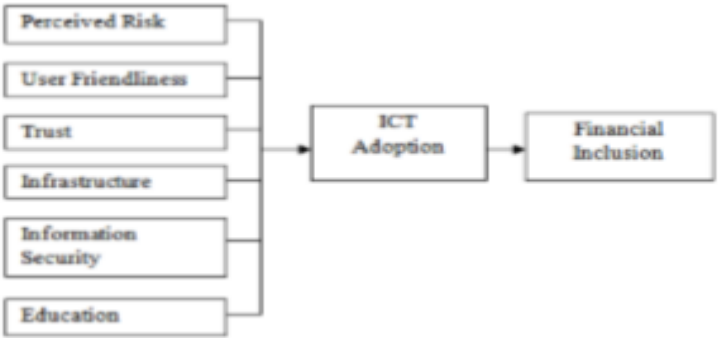
perceived risk are the internal factors that has a higher influence for mobile banking adoption by small and medium enterprises. Muhammad Ali Nasir et.al, (2015) has done an investigation on the factors which has a greater influence towards internet banking adoption in Britain. The authors opine that perceived risk is said to be one of the psychological barriers that has a negative impact of customers towards internet banking adoption.

Infrastructure: Sarma & Pais (2011) made an empirical study focusing on the association between financial inclusion and growth potential by considering specific factors that are highly related with the measure of financial inclusion. In this study they pointed out the socio-economic components like income, inequality, literacy, urbanization and out of which physical infrastructure matters a lot. Chakrabarty (2012) stated out that in recent survey conducted by banks for international settlements about 55% of the financial market infrastructure surveyed indicated that cyber-attacks are increasing on account of phishing, weaker passwords, trusted insiders and denial of service attacks. Therefore, the genuine customers have to be protected in the electronic banking scenario against the fraudulences. Gadamsetty Sai Arun (2013), reveals that ICT has not just helped to reduce the transaction costs but it is acting as a tool to facilitate financial inclusion overcoming the barriers such as limitations of physical infrastructure and high cost of maintaining setup. Chamberlin et al., (2010) stated that Financial Infrastructure gap has to be filled through branchless banking services such as mobile financial services, ATM and internet are seen as a promissory way to increase financial inclusion. Sheahan & Barrett, (2011) stated that poorness, lack of technology literacy and language hurdles are the factors that impends access to ICT infrastructure, especially in developing countries.

Education: Sreedevi and Meena (2011) stated that education and counseling should be provided for the customers for enabling multimedia and multi-language for dissemination of information and advice. Cohen and Nelson (2011), states that with ICT the rural consumers would be able to get access about the information about various things such as health, education, business and employment. Rural people could be easily misled because of their lack in education and alarms about their rights and welfare. Arijit Ghosh (2011) analyzed that ICT application gives an effective way to accelerate information and communication technology in the rural estate. Through the advancement in ICT rural farmers can be well informed with the present-day way of making cultivation. Sobel (2004) stated that in Cameroon especially in rural areas straight ownership and

utilization of ICT through personal computers with internet access applies only to the small snatch of the population living in rural areas. Even though government applications like content in local languages and utilization of graphical and voice interfaces are more accessible, illiteracy and lower level of education are said to be a major obstacle of using ICT tools. Sarma, (2015) opine that education acts as a mediating variable between usage of ICT and banking services. He stated out that to increase in the level of financial inclusion can be achieved only when the level of education system is highly penetrated and digitalfinancial literacy programs are encourage.

figure 1: Conceptual Framework for factors determining the usage of ICT in Rural Areas in Cameroon



Source: drawn by author (2024)

Information Security: Chakrabarty (2012) stated out that the as the banking and payment space become increasing everywhere, the biggest challenge is to maintain the quality of security at the highest level in the financial sectors. Therefore, the banks need to work on this regard in order to protect customers against hackers and fraud. Vimala (2015) reveals that banks can diverse services to customers with less man power through the introduction of IT related products in internet banking, electronic payments, security investments and information exchanges. Sabatini & Kpodar (2010) stated that in order to improve the access to financial services for the households in rural areas in Cameroon and promote greater financial inclusion an appropriate framework and business environment should support a greater interaction between ICT and financial sector for addressing the challenges posed by mobile banking such as security concerns and compliance with Anti Money laundering rules. Arun (2013) opine that ensuring financial inclusion through the use of ICT faces security challenges such as SMS spoofing attack, in which the aggressor send messages on network through handling sender's number. Virus attack through software's like Trojan Horses

and Zeus are used to thieve authentication number and Password of mobile transaction. Trust: Galadima, 2014, examined the impact of Technology Acceptance Model with Knowledge-based Trust on the adoption and acceptance of economy. He has developed a conceptual model which includes external variables such as knowledge-based trust with perceived risk. He recognized that an integration of technology adoption model with knowledge-based trust has a greater impact on the behavioral intention in the adoption and acceptability of cashless economy. According to Global Findex Database (2014), People may tend to save their money neither in a formal financial institutions nor semiformal givers only when they offer some savings products based on their needs and income level. People will also borrow money from informal financial providers only when they lack their trust on the formal financial institutions. Thouraya Triki and Issa Faya (2013) analyzed that financial institution gets collapsed due to the lack of product intake and repeated bankruptcies in a financial institution leads to lack of trust among the customers and therefore they develop their preference towards informal borrowings. Purvi Shah and Babaei et al., (2015) stated that technical deficiency on ICT leads to the lack of trust among the rural people about the financial institutions.

User friendliness: Saputra & Dewi (2015) has done an exploratory study on five factors such as accessibility, acceptability, user friendliness, safety and availability that affects the perception of customers about banking technologies. The authors has examined that user friendliness of the technologies in banks has a greater impact on customer perception towards the innovative delivery channels of public sector banks. Saputra & Dewi, (2015) stated that technology can be called as an important tool for facilitating access for the banking products in the isolated areas in the society. Moreover, the Automated Teller Machine (ATMs) a cash dispensing machine should be designed or modified in a user-friendly manner since people at remote areas are very illiterate and has language barriers use those devices. Six et al., (2012) stated that the latest technology should be a user-friendly application to financial inclusion of farmers. He highlighted the best examples that have user friendly features such as smart card, credit card and mobile banking and money services. Chamberlin et al., (2013) narrated that banks have an idea of creating a new product providing a cost-effective mechanism, thereby offering an integrated combination of product and delivery features which includes user friendliness, convenience and by leveraging on technology for the customers. IMF (2012), highlighted that banks should gear up their machinery for conducting financial literacy programs and provide affordable and user-friendly access for their customers.

Implications of the model: From the model it is clear that the financial products that are developed by the banks are facilitated to get to rural people at a very affordable cost through Information and communication technology (ICT) by the business correspondent models. The main factors that are determining the usage of ICT in rural areas by many authors are risk involved in accessing financial services through ICT, People's trust on financial Institutions, Infrastructure of ICT centers, Information security and to cultivate education about ICT among rural people. Since the financial products and services are delivered through Business correspondents they need to be trained in a proper way regarding the usage of technologies by the Cameroonian rural people. The technologies like POS device and smart cards has many faults in accessing. Another issue is that once account is opened, banks take nearly more than one month to supply smart card for the customers. Therefore, the customers cannot do execute immediate transactions from their account. Due to these bad experiences' customers unwilling accept Business Correspondent as their deposit acceptors and they hesitate to operate their account in an active manner.

4. CONCLUSION: For the past few decades technology has seen a rapid growth for connecting people around the world. Government has taken several initiatives regarding the renovation of technologies to get a user-friendly access for the customer. But the relaxation of Know Your Customer (KYC) norms and PIN numbers for the smart cards would enable obstacles like fraudulences, anti-money laundering, Bankruptcies and security issues which in turn reduces the trust level of rural consumers about the financial institutions. Therefore, bank officials should educate the rural consumers to use ICT applications and also ICT infrastructure should be revamped in order to protect rural customers in the electronic banking scenario against fraud.

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