

Bottom-Up Business Development: Empowering Low Income Societies through Microfinance and Mobile Technologies

Dr. Alice S. Etim

Department of Accounting and Management Information Systems

School of Business & Economics

Winston Salem State University, North Carolina

USA

Abstract

The literature overwhelmingly includes SSA both in the Base of the Pyramid (BOP) and the Bottom Billion population in all indices of development including telecommunications (Collier, 2007; Donner, 2008; Easterly, 2006; Hammond et al, 2007; Hart, 2005; Prahalad and Hart, 1999; Prahalad & Hammond, 2002; Prahalad, 2006; Sachs, 2005; U.N. Secretary-General Off the Cuff, 2008; World Bank, 2008; World Resources Institute, 2007). An average person in the BOP lives on less than two U.S. dollars (\$2.00) per day, have limited or no access to any form of banking services/credit and technology (Collier, 2007; Sachs, 2005; World Bank, 2008; World Resources Institute, 2007). This paper reports two studies. An earlier study on bank financing of small businesses is reported first; it was found that although small scale industrialists (SSIs) that participated in the study had great interest in First Bank of Nigeria loan programs (82%) they were not able to borrow funds from the Bank because of stringent lending policies. More than 76 percent of respondents indicated that First Bank lending policies were either difficult or very difficult to meet. These SSIs lacked the collateral that First Bank needed them to provide as guarantee for the loans and as such, the Bank considered them as being high risk for bank funds. A bottom up effort to overcome the credit crisis in the BOP of Sub Saharan Africa was uncovered in a case study of women entrepreneurs in 2009. Unlike the entrepreneurs or SSIs in the 1988 study, the contemporary entrepreneurs are using the banking system to their advantage. Individually, the women entrepreneurs that were interviewed had no bank loan. However, as members in a Cooperative Society nicknamed, “NkaIban”, they had access to bank funds through a pool of money in their Society; such pool of money from the women served as the much needed collateral by the bank. Mobile Technology was also found to be an enabler. With their basic mobile phones, the women were able to coordinate their Cooperative Society activities including meetings and fund distributions, made calls to schedule business appointments with clients, talked with the dealers ahead of time to order goods or even check the weather conditions before they embarked on trips to the markets.

INTRODUCTION

Low income communities have unsatisfied demand for financial services. Despite the fact that microfinance institutions (MFIs) are emerging in developing countries, many communities in these countries still have large unbanked populations that lack access to any form of microloan and other banking services. Sub Saharan Africa (SSA) is the hardest hit with the problem. Basu et al (2004), for example, report that only about five or six percent of the populations in parts of Ghana and Tanzania have access to bank services. The author of this paper embarked in an earlier study (Etim, 1988) on bank financing of small scale industries in Nigeria and found that banks were not willing to lend funds to low income borrowers despite the fact that they owned and managed small scale enterprises. This paper reports the study to serve as a historical review for a 2009 study that looked at mobile technology and impact on microfinance delivery. The main contribution of the paper is the report of both the quantitative and qualitative field research in the largest country in Sub Saharan Africa (SSA) that show how low income societies are using technology and informal social networks to find sustainable funding sources for their small enterprises. In discussing the topic of microfinance delivery in SSA, it is relevant to review the core characteristics of the population, particularly the issue of technology adoption and impact on service delivery. The literature section therefore includes an analysis of the core characteristics of the base of the pyramid (BOP) population of SSA and their ICT adoption.

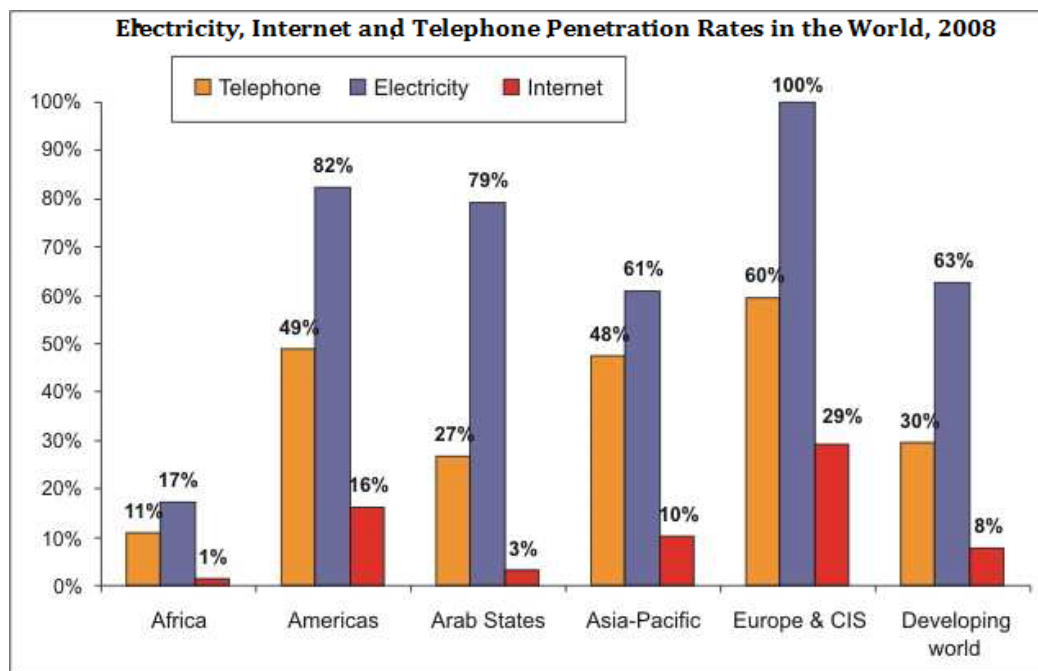
LITERATURE

Three questions guide the literature review. What are the characteristics of the SSA population? What ICT tools/services have diffused for microfinance delivery? Can mobile technologies sustain service delivery, including microfinance delivery?

Castells (1996, 1997 & 1998) posits that information technology has combined with capitalistic market structures to create an Information Society. The paradox is that the transition to the new paradigm of the Information Society has created the world of the BOP or the “Fourth World”. According to Donner (2008), the Fourth World is a world of marginalized peoples and regions that have been bypassed by information technologies. The people and the regions are not integrated nor are they able to participate effectively in information networks and exchanges, as well as the advanced production and consumption of the Information Age. It is therefore important to examine ICT tools and services in SSA, particularly when discussing issues of development or the integration of the region into the Information Age and service delivery.

A major challenge that all SSA countries face is bringing all forms of ICT, including electricity to the rural areas (Conradie et al, 2003; Lagmia, 2005; and Ekanem, 2008; ITU, 2008). Many rural villages are yet to be connected to their nation’s electricity grid (Conradie et al, 2003; Ekanem, 2008; Sachs, 2005). Figure 1 is ITU (International Telecommunications Union), 2008 statistics on the world electricity, Internet and telephone penetration rates and Africa remains the lowest in electricity, telephone and Internet penetration.

Figure 1: Electricity, Internet and Telephone Penetration Rates in the World, 2008



Source: ITU Research, <http://www.itu.int/ITU-D/ict/statistics/ict/index.html>

A typical SSA BOP village is inherently poor, lack electricity, illiterate and preoccupied with the basic needs of food, health and shelter. When the local government’s rural electrification project has not extended the electricity grid to a rural village, people use paraffin lanterns for their household lighting (Ekanem, 2008). In an interview with Ekanem (2nd January, 2009), he explained that as a former United Nation Economic Commission for Africa (UN ECA) official, he lived in Ethiopia and traveled the regions of Africa. He had observed rural living and how people made daily trips to have their cell phones charged at the houses of a few other co-inhabitants of the village who could afford to power their homes with generators. For the rural poor, the issue of access to an electricity grid or other forms of ICT assumes great urgency.

A Focus in Nigeria

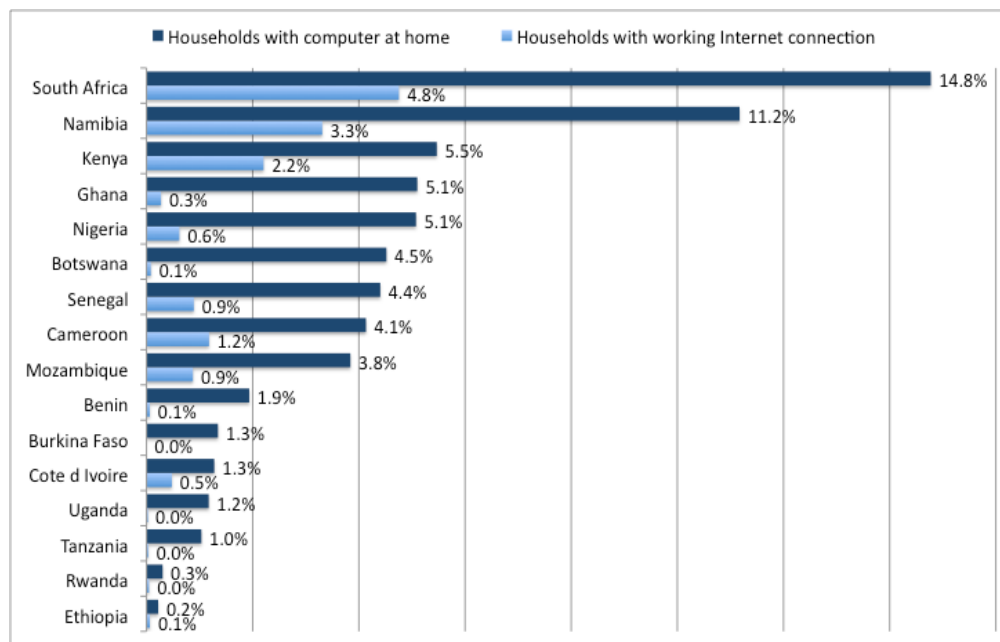
Nigeria, the largest country in Africa with a population of 133.5 million and a gross domestic product (GDP) of 188.5 billion crafted its ICT policy in 2001. The goal was to have ICT policies in place to aid with national development. The sub-goals were to use ICT for education, creation of wealth, poverty reduction, job creation and global competitiveness (Nigerian National Policy for Information Technology, “USE IT”, 2001). The National Policy on Information Technology envisioned making “Nigeria an IT capable country in Africa and a key player in the Information Society by the year 2005, using IT as an engine for sustainable development and global competitiveness.” The Policy specified many broad objectives, including the following:

- To ensure that Information Technology resources are readily available to promote efficient national development
- To guarantee that each state benefits maximally, and contributes meaningfully by providing the global solutions to the challenges of the Information Age.
- To empower the youth with IT skills and prepare them for global competitiveness
- To integrate IT into the mainstream of education and training.

The IT Policy, USE IT, had broad goals but lacked specific guidelines or strategies for supporting policy implementation in different sectors including the finance sector. The strategy for implementing the Policy in the educational sector was also lacking; in fact it was discussed under human resources development. It is therefore not surprising to see that in the nine years after the formulation of USE IT Policy in Nigeria, universities in the country still lack computer laboratories or libraries that are equipped with media services or computers that can be used to access the Internet. According to Oyelekan (2008), “Perhaps, it would not be out of place to say that Nigeria has no national policy in the integration of ICT into her educational system” (p. 8). Five years after the target date of 2005, Nigeria is still a very late starter in terms of overall implementation of its ICT policies. There is inadequate number of computers and skilled personnel in government offices, universities, and the private sector.

In the case of telecommunication, the Center for Rural Development Cooperatives (2006) reported on an opinion poll about the Nigerian National Communications Commission (NCC). The NCC is a government agency that was created by Government Decree Number 75 in 1992 to regulate the Nigerian telecommunications industry after its privatization in the same year. The 2006 Opinion Poll gathered data on the perception of stakeholders such as consumers, vendors, and service providers on NCC. The 2066 respondents were drawn from all states in the country; the polling was done to obtain data about the NCC’s effectiveness and transparency in regulating the telecommunications industry. Among the many findings, a large proportion of the participants in the survey (29.8% of individual consumers, 29.5% of corporate consumers, and 30.7% of service agents) considered NCC ineffective in performing its job. A significant number of participants (14.2% individual consumers, 9.9% of corporate consumers, and 19.8% service agents) did not indicate their opinion in the survey. The good news is that the academic communities are embarking on evidence-based ICT research that are getting both government and private sector attention and adding to knowledge. Some African countries are involved in such studies and projects. One of such studies is edited by Gillwald (2008), and the study is: *Towards evidence-based policy in Africa: ICT access and usage across 17 countries*. The results of both demand and supply sides of ICT researches in several Africa countries can be found at researchICTafrica.net. Figure 2 is adapted from Gillwald’s study; it shows ownership of computers and Internet connection in study participants’ homes across 16 SSA countries.

Figure 2: Computer Ownership and Internet Connection at Study Participants’ Homes in 2008



Based on the statistics in Figure 2, South Africa and Namibia are the only two African countries that show above ten percent computer ownership at home with at least three percent connectivity to the Internet. Several other countries (Ghana, Kenya, Nigeria, Botswana, Cameroon and Mozambique) record between three and five percent computer ownership at home with only about one percent connectivity to the Internet. Etim (2009) in a related ICT study confirmed this statistics for Nigeria; the connectivity to the Internet was mostly by dial-up access at less than 100kbps. Fixed land lines have also seen stagnated growth in SSA. ITU Research (2008) records that although mobile phones have great prospect for Africa, fixed telephone lines remain the exception and penetration is at 3 per 100 inhabitants and it is, by far, the lowest in the world.

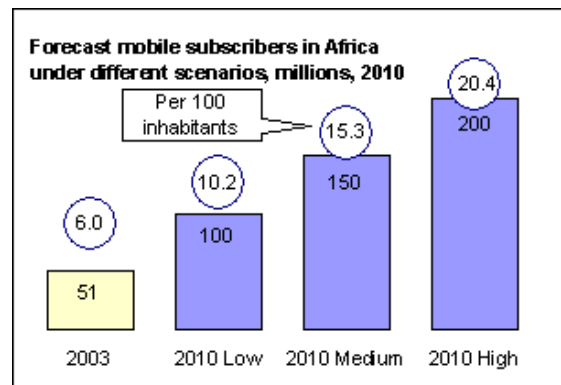
Trend in Mobile Phone Adoption

The limited availability of computers and fixed land lines have posed significant barriers in the take off of fixed broadband in SSA, whereas both fixed and mobile broadband have reached significant levels in Europe and the Americas (ITU Research, 2008). Despite these limitations, there is a growing need to use ICT for service delivery including microfinance delivery in all regions of SSA. A few of several reasons are to help eradicate extreme economic poverty, tackle unemployment and support sustainable development in the region. A starting point is to look at ways to use ICT that has diffused successfully in the region and mobile phones have diffused (Butler, 2005; Business Week, September 2007; cellular.co.za, 2004, Etim, 2010; ITU Research, 2008). New studies are however needed to understand the rate of diffusion in different segments of the populations and regions like the urban and rural areas.

As further research is conducted, it will be possible to better predict mobile phone innovation, particularly diffusion and usage impact in Africa. An attempt at earlier predictions was made by ITU Research in 2004 (see Figure 3). ITU Research predicted that there will be between 100 million to 200 million mobile subscribers in Africa by 2010. The current report for mobile technology subscribers for Nigeria and South Africa is over 80 million. Nigeria has more than 46 million cellular subscribers (Nigeria, 2007 at http://www.ncc.gov.ng/index1_e.htm). South Africa had 42.4 million mobile subscribers in 2007 and that number is expected to grow to 48.5 million by the end of 2010 (ResearchANDMarkets, 2008).

Since many people are adopting mobile phones, it can serve as the ICT tool for service delivery. An important factor that has helped to support the recent trend of mobile phone adoption and use in SSA region has been in the formulation and implementation of ICT policy by each of the African countries. Many country-owned telecommunication services have been privatized and the leaders of most of the countries have crafted ICT policies (Poodts, 2006; Rezaian, 2007). The countries are now looking at ways to use ICT to support business & economic development, education, infrastructure, and governmental services (Negroponte, 1998; Ifinedo, 2007; NEPAD, 2007). Relaxed regulations, favorable government policies, reduced ICT costs, and the usefulness of the technology to enhance lives are also factors that have helped the diffusion of mobile technology over the fixed (wired) lines or the personal computer (Etim, 2009; Butler, 2005; Business Week, September 2007).

Figure3: Mobile Technology Diffusion in Africa (ITU Predictions in 2003)



(Source: http://www.cellular.co.za/news_2004/may/0501004-itu_says_africa_is_the_world.htm)

In the next section, I discuss the 1988 study on bank financing of small businesses in Plateau State, Nigeria in order to provide a historical perspective in microfinance delivery.

A Past Approach to Microfinance Delivery in Nigeria (based on an earlier study)

The Nigerian economy has been agro-based before and immediately following the 1960 independence from Great Britain. However, beginning from the 1970s, the oil boom illusion diminished the progress in this sector. The State of the Nigeria economy started deteriorating in the mid 1980s. Nigerians started returning to agrarian way of life and small scale industrialization for their survival. Very early studies like those of Akeredolu-Ale, 1975 & Orsaah, 1977 showed that small scale industries can stimulate entrepreneurship and if properly managed and funded, can grow into large business concerns.

It was in this era of the 1980s that small scale industrialization was emerging in Nigeria that the author embarked on a study (1988) to investigate bank financing of these small businesses. There were few studies that preceded mine; one of such studies was conducted by Ihyiambe (1986). He found that commercial banks regarded small scale industrialists as being high risk for their funds when compared to large enterprises. Banks imposed stringent conditions on small scale industrialists and these lending practices did not favor the people; many of the people could not meet the banks' lending requirements. They either resorted to other less stringent sources of funds such as family members, friends, cooperative societies like *Etibe* (Ibibio) or *Esusu* (Igbo), government loan scheme program (where it was available) or they abandoned the business idea completely. Plateau State had a microloan scheme that rendered financial assistance to SSIs. The microloan scheme could be traced back to the Northern Credit Scheme that was established in 1966. The former Benue-Plateau State took over the Scheme when the Northern region was split into additional new states. The present Plateau State had its own microloan scheme in 1976 and it became Small Scale Industries Credit Scheme (SSICS), under the management of the Plateau State Ministry of Industries (Agyina, 1986).

The main objective of the microloan scheme or SSICS was the development and promotion of small scale industries (SSI) in the State through provision of lines of credit or small loans to entrepreneurs and industrialists. Other objectives of SSICS were to create employment opportunities, utilize local resources for industrial production, develop through workshops entrepreneurs who had the potential of setting up modern SSIs and encourage establishment of small enterprises in rural areas in order to reduce rural-urban migration. The funds for the loan scheme came from the State's annual budget allocation, the Federal Government allocation, returns on earlier years' investments (3 percent interest was charged at the time of the study) and the World Bank (Plateau State was one of the few states in Nigeria that benefited by the World Bank pilot financing of SSIs in Nigeria in the 1980s). As at the time of the study, SSICS had a capitalization value of ₦3,588,131.37 (naira) and had disbursed a total of 191 microloans to SSIs in the State (Lektu, 1987). Table 1 shows a sample of the projects and the loan amounts that were disbursed by SSICS.

Table 1: Projects and Microloans Disbursed under SSICS, 1985

Name of Project	Number of Projects	Amount (Naira)
Corn mill	36	194,800.00
Cement block	20	521,889.00
Bakery	16	276,256.00
Mechanic workshop	12	77,203.00
Rice Mill	10	183,225.00
Garri processing	10	233,000.00
Poultry farm	8	36,120.00
Mining	6	60,000.00
Printing press	6	278,000.00
Saw mill and timber	5	222,770.00
Black smith	4	41,092.00
Livestock feeds	4	260,000.00
Stone crushing	3	138,950.00
Bus services	1	315,945.20

Source: Lektu, J. D. (1987). The role of small scale industries in transforming Plateau State (1976 – 1985), *Unpublished thesis*, University of Jos, Nigeria, 43 – 45.

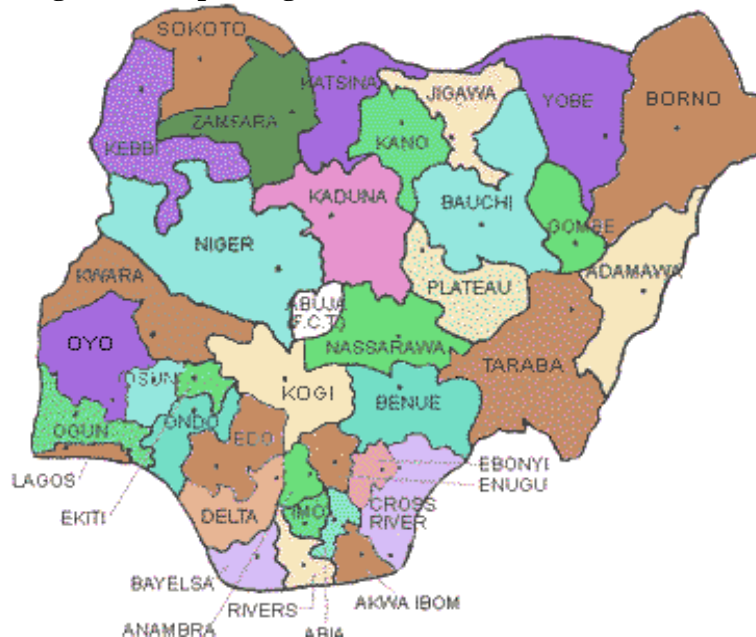
Motivated by the findings in the studies reviewed and the fact that there was no study that clearly outlined the impact of bank policies on financing of SSIs, I set out to answer the following questions in my study:

- Are the lending policies of banks inhibitor to small scale industrialists' interest in seeking bank loans?

- b) For those small scale industrialists that have availed themselves of bank funds, are their borrowing capacities limited by these lending policies?

The study was conducted in Plateau State. Figure 4 shows the map of Nigeria and the location of Plateau State (or State for short).

Figure 4: Map of Nigeria and the location of Plateau State



Source: http://www.waado.org/nigerdelta/Maps/Nigeria_States.html

Methodology

The questionnaire technique was used for the study. The questionnaire contained 24 items and was administered to small scale industrialists in the State. The questionnaire sought information from the respondents in five categories: owner/partner profile including managerial training, respondents' perception of commercial bank lending policies, their success or failure in getting bank loans, their opinion on the interest charged for bank loans and study participants' opinion about the general effect of the loan (if loan was received) on their business. An Area Sampling technique was used. Small scale industrialists that visited First Bank of Nigeria branches in Jos (State capital) and the surrounding communities like Bukurru were requested to complete the questionnaires. With First Bank's permission, respondents were given time to complete the questionnaires during their bank visits except for cases where they preferred to complete and return later. However, it was difficult to get back those questionnaires that were not completed during the bank visits. In the rural areas, about 95 percent of the SSI lacked the ability to read and write English language. The researcher lacked skill in the local dialects or Hausa language and resorted to using an interpreter wherever possible. Out of the 250 copies of the questionnaire that were distributed, 80 usable copies (32 percent) were returned. This was considered sufficient for the purpose of the research because respondents represented the various units of the population in the study.

Important Findings

Finding #1: Although SSIs that participated in the study had great interest in First Bank loan programs (82%); they were not able to borrow funds from the Bank because of stringent lending policies. More than seventy six (76) percent of respondents indicated that First Bank lending policies were either difficult or very difficult to meet. These SSIs lacked the collateral that First Bank needed them to provide as guarantee for the loan and as such, they were considered to be high risk loan applicants. Table 2 shows a cross-tabulation of lending policies and participants' interest in bank loans. From Table 2, sixty one percent (61%) of the respondents who had very high or high interest in bank funds responded that bank policies were either very difficult or difficult to meet. Further analysis was done via hypothesis testing with a null hypothesis (H_0) that stated that bank policies were not inhibitors to SSIs borrowing from First Bank of Nigeria. A Chi-Square (X^2) Statistical analysis led to the rejection of H_0 at .05 confidence level ($p = .05$); leading to a conclusion that the lending policies of First bank were inhibitors to SSIs borrowing from the bank.

Table 2: Cross-tabulation of Perception about Bank Lending Policies and Interest in Seeking Bank Loan

Interest in Bank Loans	VeryHigh Interest	High Interest	No Interest	
Lending Policies				Total
Very difficult to meet	8	7	9	24
Difficult to meet	12	22	3	37
Not difficult to meet	12	5	2	19
Total	32	34	14	80

Finding #2: The small scale industrialists that succeeded in borrowing from First Bank had their borrowing capacities significantly reduced because of the bank lending policies. Respondents were asked if their initial loan amount request was reduced by a very small amount, half or significantly larger amount (includes those who were not given loans). More than 71% of the study participants indicated that the initial loan amount they requested from First Bank was reduced by half or more than half that amount. The reasons for this action by First Bank as provided by the respondents are shown in Table 3 and more than 50 percent of the respondents indicated that inadequate collateral or combination of it with another factor such as unsatisfactory accounting records caused the loan reduction or disqualification.

Table 3: Reasons for Loan Reduction

Lending Policies	Not Met by	Number of Responses	Percentage (%)
Borrower			
Collateral requirement not adequate (A)	not	20	28.57*
Accounting records of business not satisfactory (B)		10	14.29
Poor business proposal (C)		6	8.60
A + B		18	25.70
A + C		12	17.14
B + C		4	5.70
Total		70	100

Further statistical analysis using One-Way ANOVA led to the rejection of the null hypothesis - First Bank lending policies had no significant effect on the borrowing capacity of small scale industrialists, $p=0.05$. A conclusion was made that First Bank lending policies significantly impacted the borrowing capacities of SSIs. The 1988 study is reviewed primarily to highlight a significant historical flaw on bank financing of SSIs not only in Nigeria but in other SSA countries. The Federal Government of Nigeria had at the time instituted penalties against banks who were not lending to SSIs, however many of the banks preferred paying the penalties rather than offer microloan to SSIs. The current events in microfinance delivery have been made possible because of the failure of banks to serve SSI. In the next and final section of this paper, I discuss a case study of contemporary microfinance delivery in Nigeria that is being enabled by mobile technologies.

Contemporary Microfinance Delivery– A Case Study

Many countries in SSA have very similar characteristics (NEPAD, 2002) and therefore, inference can be drawn for other SSA countries based on a study conducted in one country. This case study is likely a common story in the different countries in SSA and there is a great need to document the progress in microfinance delivery using these different approaches. I report about one of the women organizations in AkwaIbom State of Nigeria (refer to Figure 4 for the location of AkwaIbom State in the map of Nigeria), “NkaIban”, meaning *Women Society*. I prefer to call them AkwaIbom Women Cooperative Society (or Cooperative Society for short) in this paper. I was introduced to the Cooperative Society by one of the members during an ICT study in Nigeria in 2009 where I investigated mobile technology adoption/diffusion among students in the country. As at 2009, the Cooperative Society that was founded in 2007 by less than ten women who were in need of funds for business ventures had grown to 180 women members. Although the members had different profiles, they all had a common need, a sustainable method of financing their small scale businesses. Significantly, it was their level of connectivity and networking enabled by mobile phones that led to my hearing about them. The women were from different villages that surround Uyo, the capital city of AkwaIbom State. Some of them had grade school and college education while some did not know how to read or write the English language.

They were a mixed group with diverse skills/occupation - crafts, sewing, sculpting, petty trading, children day care, fashion designers, hair dressers, funeral/wedding planners and gardeners. Some of the women ventured out on a part time basis in order to supplement the income from another job like teaching. I interviewed five of the women in the Cooperative Society.

Method of Investigation

Informal interviews were conducted and each lasted for about 30 minutes. The women interviewed were teacher/part-time trader, hair dresser, seamstress, mobile telephone shop operator or “hand-set lady” and gardener. Except for the gardener whom I interviewed during her delivery of vegetables to a client, each interview was conducted informally at the interviewee’s business location. The following five open-ended questions were asked to each person in effort to gather information about sources of financing and uses of mobile phones to enable sustainable access to financing and effective business operations.

Interview Questions

1. What type of small business are you in?
2. What circumstances or needs led to the start of your small business?
3. How did you get initial startup money and subsequent funds to operate your business? Did you borrow from the bank?
4. Has your mobile phone enabled you to get access to short or long-term loans and to carry out everyday business operations?
5. What social networks are you affiliated with that have helped you to find funds or build clientele for your business?

I discuss the key information gathered particularly with reference to the first woman (teacher/trader). The first person interviewed, an elementary school teacher, had introduced me to the other four women that I also interviewed. They were all members in the Cooperative Society. The teacher, at the time of meeting in 2009 had taught at the same school for about 15 years. As a teacher with many years of experience, she had networked well with other teachers in her school district and found that some of the other teachers would prefer to buy and share full bags of stockfish (smoked Norwegian fish that is one of Nigerian imported delicacies for different kinds of soups), locally caught and smoked fish and Cray fish (shrimp) among themselves because these items were very expensive in the local open market (there are many middle men between the main distributors and the final buyers). She participated and later became the lead person or the “contractor” to supply the other teachers with the goods. This business opportunity was what she had hoped for since the economy went downhill in the late 1990s. She narrated how salaries were paid two to three months late, her family’s lack of basic necessities of food and how she resorted to borrowing from friends/family members until her salary was paid.

This business venture therefore helped immensely to supplement the income from her teaching job. Becoming a contractor that others depended on required that she had to come up with enough money to buy five to eight bags of stock fish and other goods every two weeks when she traveled by public bus transport to *Ibeno* or *Oron* (trading towns at the gulf of Atlantic Ocean in Akwa Ibom State). She joined the Cooperative Society to get funding from a pool of funds that she and the other members of the Cooperative Society contribute to and held in a bank. The funds support the Cooperative Society’s microloan scheme and the bank manages the funds based on a fee. The Cooperative Society was also an entity that the bank can advance loans to periodically when the members need such funds.

Information and communication technologies and in this case, mobile phones enabled the people. The teacher/trader that can rightfully be called a business entrepreneur and the other four women that were interviewed had basic mobile phones and they used them effectively. The women did not have land lines or computers. The mobile phones that they could afford to buy were Nokia basic phones for voice communication and SMS (short message service or texting). None of the women that were interviewed could text with their phones; it was voice contact or face-to-face interactions. These basic mobile phones lacked advanced feature support as well as the smartness capability for accessing data, including Internet data. The women had heard about the Internet but had no knowledge of how it could relate to them or how they could use it. With their phones, the women were able to coordinate their Cooperative Society activities including meetings and fund distributions, made calls to schedule business appointments with clients, talked with the dealers ahead of time to order/negotiate price before their trip, and in fact, the teacher/trader reported that she would call to check the weather condition, particularly during rainy seasons before her trip to *Oron* or *Ibeno* to purchase goods.

Another power to the people that was uncovered in this case study is the fact that unlike the entrepreneurs or SSIs in the 1988 study, these contemporary entrepreneurs are using the banking system to their advantage. None of the women individually had a bank loan; however, as members in the Cooperative Society, they had access to bank funds that was a pool of money held by the bank for them through their Cooperative Society.

CONCLUSION

In this 21st Century, people, particularly entrepreneurs, enterprising college graduates, SSIs and women should no longer be concerned with how to get money to fund a business idea or a small enterprise because they should be able to access microloans from banks or MFIs. The focus should be how to empower the people through innovations and cooperative societies including social networks for effective business operations and service delivery. If ICT is to play a significant role in the next five to ten years in SSA development, service delivery and nation building, African leaders will need to learn from the examples in several Asian countries like Bangladesh, China, India, Malaysia and Singapore on the use of ICT tools like mobile phones for service delivery (Sullivan, 2007). Taking the case of Yunus (1999), Grameen Bank provided microloans to women, including the “phone ladies” in Bangladesh for a total amount of about six billion dollars. More than five million families that live in rural Bangladesh can engage effectively in social networks and cooperative societies. As the case study shows, mobile phones can be used as tools for effective microfinance and service delivery for the people of SSA.

A cooperative society like *Nka Iban* of Akwa Ibom State of Nigeria that was discussed in this paper is a social network that adds extra power to the people. Entrepreneurs and other SSIs no longer have to feel powerless when it comes to requesting for bank loans or other attractive bank products to support their business ventures. The women in *Nka Iban* were able to network and team effectively through an organization or cooperative society. There is the trust element that helped to strengthen this network. The cooperative society became an entity that could borrow from banks without the stringent lending policies because the women’s pool of funds served as the much needed collateral for loans. Since mobile phones enabled the women, it is significant to continue to study the future delivery of microfinance using various forms of ICT tools and services. Parikh et al (2006) argue that there is an increasing demand for the integration of management information systems (MIS) tools and services in the delivery of business services. Additional studies are therefore needed on the use of different forms of ICT tools to deliver services in various sectors and for empowering different BOP groups - entrepreneurs, students and women for bottom-up development.

AUTHORS BACKGROUND

Dr. Alice S. Etim research focus is information and communication technology (ICT) use to support organizational systems and project management. She also researches ICT acceptance/adoption in extremely poor world regions or the Bottom of the Pyramid (BOP) populations and ways to use ICT tools and services to enable the populations. Alice has a PhD in Information and Library Science from the University of North Carolina at Chapel Hill, MSBA in Business Information Systems from Mississippi State University and MBA from Delta State University. She is a faculty member in the School of Business and Economics at Winston Salem State University (WSSU) and a research collaborator on the Provider Patient-centeredness and Disparities Outcome Measurement Initiative in North Carolina. Prior to joining the School of Business and Economics (SBE) in August, 2010, Alice worked for IBM Software Group for twelve years and left in 2009 at the position of a Staff Software Engineer with IBM Software Group. Alice is a certified project management professional (PMP), and has managed medium to large scale as well as international projects. Alice’s research interests also include the application of ICT in overcoming health disparities, mobile technologies, cloud computing impact on business and microfinance delivery.

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