

## Use of Mobile Phones among Informal Microenterprises in Katsina, Nigeria

Misbahu Na'Iya. Katsina and Abubakar Abdulkareem,

Umaru Musa Yar'adua University Katsina, Nigeria

[misbahukatsina@yahoo.com](mailto:misbahukatsina@yahoo.com)

### Abstract

*Businesses with one to five employees are called microenterprises (MEs) and they support households in developing nations around the world. They are a critical part of the economies of countries such as Nigeria. (Mead and Leidholm 1998; Santos1979). Large swathes of the population in Nigerian cities are engaged in microenterprises and are recognized by the larger society as well as the government for their contribution to the GDP. Mobile phone technologies are supporting the MEs to become more efficient. As an aspect of ICT, Mobile phone technology, from the number and level of people using it, emerge to be having a great impact on microenterprises. The role that mobile phones play in the remains largely unexplored. This study analyses the extent of mobile possession, and the impact of mobile phone usage on MEs in the in Katsina. The hypothesis that was tested and strongly rejected was that, mobile phone usage has no effect on business performance among MEs within the Katsina metropolitan area. Data for the study was collected from the 4 main administrative divisions of Katsina City. A regression model was used in analyzing these data. The main findings of the study are as follows: a) the sector is dominated by illiterate people, the majority of whom were male operators; b) many of the operators had mobile phones, and they used them for business transactions; c) mobile phone possession and usage of the phone for business transactions increases proficiency and earnings in the. It was recommended that policies that encourage mobile phone use be developed so as to increase the number of people using them and the advantages they gain in the sector. Enlightenment programs on mobile phone functions and uses ought to be conducted so as to explain to ME operators in the on money-saving and profit maximization opportunities.*

**Keywords:** MEs, ICTs, Mobile Phones,

### 1.0 BACKGROUND

The Nigerian economy has recently gone through significant opening up and changing economic opportunities. These have led many government and private agencies to either down-size or retrench their employees. Absence of employment options has led many people into the self-employment sector. It is these that largely form the microenterprises (ME) sector, which however is not clearly acknowledged or understood in Nigeria and in other developing countries. According to Stevenson and St-Onge (2005), a micro enterprise is one having not more than ten employees including the owner, while a small enterprise is the one having eleven to fifty employees.

The Nigerian Government recognizes the contribution of the microenterprises to the economy, and therefore came up with an agency and a bank for micro and small enterprise development. These departments are responsible for the formulation and implementation of policies and strategies for the development of the ME sector. Although huge amounts of money have been spent on MEs through projects and programs in recent years, their impact on survival and development of the enterprises has been low, as their mortality rate remained high.

#### 1.1 INFORMATION AND COMMUNICATION TECHNOLOGIES

The ICT is an all-encompassing term for communication devices and applications. These include print media, radio, television, mobile phone, computer hardware, computer software and network systems. ICT includes both traditional and new technologies which together provide effectiveness in information processing and communication. The appropriate ICT application for the microenterprises is the mobile phone (Litondo, 2010). The remarkable thing about the mobile phone as a popular ICT in Nigeria is that it is used by both the poor and the rich. The poor use them for convenience and to cut costs on transportation, such as by using short messaging services (SMS). Some of the benefits of a mobile phone as listed by Silarszky et al (2008) are as follows:

- a) GDP growth – an increase of mobile phones increases GDP
- b) Job creation – employment is generated through sale of handsets, SIM cards, and air time,
- c) Productivity – assist in reduction of transaction costs, starting new businesses, employment search, entrepreneurialism, e.t.c.
- d) Tax revenue – direct taxation on users; and
- e) Market efficiencies through up to date information sharing (in real-time).

Mobile technology in the Nigerian society is advancing at a fast rate, meaning that policy makers must keep up with these developments, especially in the business sector. The government has recognized this and is formulating policies to cover mobile phone usage in all sectors of the economy. Computer literacy is good for the society because this is the platform for mobile phone applications, and therefore for any ME to exploit the enormous capabilities of mobile usage, the operators must be computer literate. However, it should be noted many mobile phone operations used by MEs to transact business do not require one to be computer literate (The Ministry of Information and Communications, 2004).

There are also policies and strategies for fast tracking ICTs in the Nigerian economy. The mobile phone companies are in the process of laying out Optical Fiber broad bandwidth cables throughout the country. The broad bandwidth is an important infrastructure to mobile users, as it can open up avenues for many transactions, including downloading business information from the internet using a mobile phone. This is where computer literacy plays an important role. The technology of third generation mobile phones (3Gs) that are

currently on the Nigeria market is very similar to that of a computer and they require broad bandwidth for many applications, such as access to the internet, watching television, working with spreadsheets and transmitting pictures of merchandise via the mobile phone.

## **1.2 MOBILE PHONES IN THE**

Banks (2008) argues that many books do not touch the MEs, in which development growth is made possible by the use of mobile phones. However, the phone has made Nigerian and African businesses to start finding their way in the changing economy without having to rely on foreign agencies. He further states that as many people become connected, future studies of Sub-Saharan Africa and its economies will find it harder to ignore the growing influence of mobile technology and the power and spirit of African businesses to capitalize on it by growing an efficient economy.

## **1.3 RESEARCH PROBLEM**

Mobile phones, once a toy for the well-to-do, have now evolved in a few short years to become tools of economic empowerment for the world's poorest people. They compensate for inadequate infrastructure, such as bad roads and slow postal services by allowing information to move more freely, making markets efficient and accelerating businesses. Further, this has direct impact on economic growth; more than 4 billion handsets are now in use worldwide and three-quarters of them are in the developing world (The Economist, 2009). According to Diga (2008) mobile phones are not clearly identified by most international agencies as tools for development, while they have become long term economic investment for the disadvantaged. She further states that many people across Africa are investing in mobile telephony before meeting the needs of improved sanitation, water, health, housing and education. Hence, households are choosing to address communication needs instead of basic needs.

According to Donner and Escabari (2009), there is significant potential for a mobile phone to increase productivity of MEs. However, current supporting evidence is scarce, methodologically heterogeneous, and economically unreliable. For example, there is a difference between using a mobile phone to checkout market situations and using it to by-pass middlemen. It is thus important to rigorously examine patterns of mobile use by MEs.

## **1.4 OBJECTIVES OF THE STUDY**

The overall objective of this study was to establish the uses of mobile phones in the running of daily business among MEs in Katsina. Specifically the study intended to cover the following objectives:

1. Determine the degree of use, problems and concerns of mobile possession within microenterprise operators in Katsina
2. To analyze the impact of mobile phone usage on business transactions, as well as for personal/social purposes in the ME sector in Katsina

## **1.5 IMPORTANCE OF THE STUDY**

This study is important to mobile phone companies, academicians and policy makers because it presents an understanding of ICTs and it also gives a degree of the influence the usage of mobile phones has on microenterprises. The Nigerian Government can use the findings of this study to formulate policies that would enhance the performance of the MEs and by extension job creation within the. Academicians can use the study to identify areas of further research.

## **1.6 STUDY HYPOTHESIS**

One hypothesis was tested in this study, namely:

Mobile phone usage for business transactions has no effect among microenterprises in Katsina.

## **2.0 LITERATURE REVIEW**

The formal sector is recognized by the state and, therefore, continues to yield privileges and preferences that the MEs sector cannot afford to take for granted, and has had to fight for recognition as a sector that is making positive contribution to the economy. Mitullah (2006) notes that many attempts at addressing the have tried to formalize the sector, and therefore failed to recognize the fact that those operating within the sector have their own dynamics that require policy, legal, infrastructure and service support.

Macharia (2007) argues that among the traders in the, there are individuals who are well-off economically, mostly professionals and civil servants who have businesses in the, or businesses that have been forced by a changing political climate to exit the formal sector. Despite its limitations, the MEs have become increasingly important in the Nigerian economy as a source of employment and income according to Jagun, Heeks & Halley, (2008). It is widely perceived that the MEs activities in Katsina (a typical Nigeria state capital) such as street vending provide nourishment for urban families and contribute substantially to the economy, and therefore, it is necessary to understand how the government, formal businesses and street vendors can work together.

A summary of the urban climate analysis in developing countries asserts that informal employment contributes to approximately 34% of GNP in many countries, and is increasing ten times that of the formal economy at just over 16% (World Bank, 2006). According to Duncombe et al. (2006) there are many small and micro enterprises in developing countries, and more than 90% of all firms in developing countries are microenterprises and contribute 80-90% of all employment.

## **2.2 MOBILE PHONE USAGE IN DEVELOPING COUNTRIES**

The report by United Nations Economic and Social Council (2009) recognize mobile phones are an important part of development in poor countries because of their ability to bypass the infrastructure barriers in remote rural areas in Africa. Additionally, the rapid advancements in technologies and the simplicity of the phones in addition to the falling prices of mobile handsets, present the mobile phone as an appropriate and

adaptable tool to bridge the digital divide. The Information Economy Report 2007-2009 states that in the past 2 years, mobile telephony has emerged as the most important ICT for low-income countries, and its increased circulation identify the mobile phone as a 'digital bridge'. McCoy and Smith (2007) opine that people in developing countries are welcoming mobile phones as indispensable, even if costly, devices. They cite examples of fishermen in India who use the mobile phone to call different markets to inquire about prices; and a hairstylist in Cote d'Ivoire whom the phone provides immediate contact with customers and simplifies the scheduling of customers. In both cases, sales went up and the customer base and profits increased.

According to Mendes et al. (2007), much focus of the role of ICTs in development was traditionally on people's increasing access to computers and fixed lines through IT-centres. However, the explosive growth of mobile telephony has overridden these efforts, as the phones are the primary form of telecommunication in developing countries. Further, the phones play the same role that fixed-phone networks did in facilitating growth in Europe and North America in the twentieth century. Moreover, increased access to mobile phones drives the economic growth in developing countries. Millions of poor people are engaging in tasks normally associated with the internet, using relatively simple mobile phones. For example, information retrieval, electronic payments, and remote computing such as inquiring the account balance from a bank database. Therefore, understanding the beginnings of more than voice applications over the mobile phones is important as it would serve as a basis for coherent and effective policy and regulatory response (OECD, 2002).

There are several innovations in mobile telephony that are assisting MEs. Across the developing world, there are corner shops whereby people buy vouchers to top up their airtime, mobile-money services also allow these small retailers to act like bank branches. They can take your cash, and (by sending a special kind of text message) credit it to a mobile phone. Mobile phone airtime credit can then be transferred (again, via text message) to other registered users, who can withdraw it as money by visiting their own local corner shops.

In contrast to the developed world, mobile phones in the are used for a wide variety of tasks, from sending money to family members to buying goods from the market. Further, Nigerian business persons and farmers and labourers are finding new uses for the mobile phone, thought of by the west as a tool for voice communication; and are coming up with innovative methods of solving their own problems. For example, contract workers such as casual workers at building sites can now give potential employers their mobile numbers instead of making long trips to the construction site only to find out that no work is available on that particular day (EPROM, 2009).

### **3.0 RESEARCH METHODOLOGY**

The data collected covered different locations in Katsina, to ensure variability in characteristics of businesses and the environment under which they operated. The fieldwork for this research was based on a survey design because the information that was gathered was not available from other sources. The observation units were selected in a way that ensured unbiased representation of the population of interest. This was a cross-sectional survey as the data collected was from a sample chosen to represent a larger population.

The population of the study was the 1-5 person owned microenterprises in the in Katsina. MEs in the play a unique role in developing nations where they form the largest economic sector, engaging the most number of employees. They are regularly the only employment prospect for millions of poor people. Apart from traditional factors that have marginalized this sector in Nigeria, businesses recognize its further marginalization - if it is bypassed by modern and sophisticated business technologies (Moyi, 2003).

#### **4.0 DISCUSSIONS AND RECOMMENDATIONS**

Studies that have been done so far on information and communication technologies (ICTs) in the have focused on the internet and computer usage rather than on applications of a mobile phone, and yet the mobile phones are wide used in the for business transactions.

Mobile phones create jobs among the MEs that were repairing phones, selling airtime, selling mobile phone handset covers, and charging phone batteries for customers. The mobile phones have become a launch pad for MEs to be entrepreneurial; they are helping operators in the to come up with solutions to their specific problems, as compared to those forced on them by outside organizations. Some level of education is essential for mobile phone innovations, and according to the results of the study, the average education in the in Katsina is 13 years, i.e., senior secondary school. This sector is not dominated by illiterate people and unskilled workers as some of the studies have claimed.

The Nigerian Economic Report has shown, the ME sector is important to the Nigerian economy. It receives special attention in Nigerian Vision 2020, but where regrettably, it gets mixed up with the youth sector or the manufacturing sector. The operators in this sector are hard working and creative and should be made aware of the enormous opportunities that are availed by the use of mobile phones for business. This can greatly enhance job creation in the sector. Appropriate premises would also ensure that the MEs have access to electricity, which is crucial for the possession and usage of mobile phones.

Mobile phones in the have been shown to increase the size of customers, business, and also number of employees. Since the sector has many literate people, operators should be made aware of new applications of mobile phones. Most of these applications are advertised on television, or an alert is sent on the mobile handset. But thorough explanation of how these new tools can assist an ME improve its e-commerce transactions are necessary for maximum benefit.

There are many training schools on computer usage in Nigeria, but none on mobile phone usage, even though it is a technology that is impacting more lives and in more profound ways in the , than computers and the internet. Nigerian government should also assist in bringing down the cost of airtime. Airtime is one of the constraints to using a mobile phone, and during the interviews, many operators expresses the discontent with the cost of airtime.

Internet enabled mobile phones are by now available in Nigerian, and the only constraint in using them is training. The internet is important for the import or export of goods and e-business in general. The important

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goal of Globalization, as one of the aims of internationally adopted Millennium Development Goals (MDGs) cannot be achieved without extensive acceptance of high-capacity mobile phones in the MEs sector of the economy. Further, deeper, research on the use of mobile phones in the MEs sector and the type of jobs created by the phones should be conducted all over Nigeria.

## REFERENCES

1. Banks, K. (2008, April 14). "Under the Radar? African's Informal Development". Computerworld Kenya News. Retrieved on November 23, 2009 from <http://www.computerworld.co.ke/articles/2008/04/23/under-radar-african-informal-development>
2. Diga, K. (2008). "Mobile Cell Phones and Poverty Reduction: Technology Spending Patterns and Poverty Level Change among Households in Uganda". (A paper presented at a workshop on the Role of Mobile Technologies in Fostering Social Development, June 2-3, 2008, Sao Paulo, Brazil) Retrieved December 10, 2009 from [http://www.w3.org/2008/02/MS4D\\_WS/papers/position\\_paper-diga-2008pdf.pdf](http://www.w3.org/2008/02/MS4D_WS/papers/position_paper-diga-2008pdf.pdf)
3. Donner, J. and Escobari (2009). A Review of the Research on Mobile Use by Micro and Small-Scale Enterprises (MEs)". A paper presented at international conference on Information Communication Technologies And Development, IEEE, Doha Qatar. Retrieved on December 12, 2009 from <http://ictd2009.org/>
4. Duncombe R, Kintu R and Nakangu B, (2006). E-Commerce for Small Enterprise Development A Handbook for Businesses in Developing Countries. Retrieved May 5, 2007 from <http://www.sed.manchester.ac.uk/idpm/research/is/ictsme/index.htm>
5. Entrepreneurial Programming and Research on Mobiles (EPROM) (2009) "Why Africa?" Massachusetts Institute of Technology. Retrieved November 4th 2009 from <http://eprom.mit.edu/whyafrica.html>
6. Litondo K. (2010). "Mobile Phones and E-Commerce in Microenterprises: An Empirical Investigation of Businesses in Nairobi". A Doctoral thesis submitted in fulfillment of the Degree of Doctor of Philosophy in the School of Business – University of Nairobi.
7. McCoy, J. and Smith, G. (2007). "Mobile Phone Use in Developing World,". Direct E-Bay Related work. Retrieved January 2, 2010.
8. Mendes S., Alampay E., Soriano E. and Sariano C. (2007). "The Innovative Use of Mobile Application in the Philippines Lessons for Africa." SIDA. Retrieved October 14, 2009 from [http://www.siteresources.worldbank.org/EXT/DEVELOPMENT/Resources/2007112-mobiles\\_PH\\_Lessons\\_for\\_Africa.pdf](http://www.siteresources.worldbank.org/EXT/DEVELOPMENT/Resources/2007112-mobiles_PH_Lessons_for_Africa.pdf)
9. Jagun, Heeks and Halley (2006) The Impact of Mobile Communications on Informal Micro-Businesses: A Nigerian Case Study. Information Technology & International Development (4:4) 2008.
10. <https://pure.strath.ac.uk/portal/en/publications/the-impact-of-mobile-communications-on-informal-microbusinesses-a-nigerian-case-study%28e5cb5bed-de27-40f9-8d2f-872a6885b500%29.html>

11. <http://bizcovering.com/history/the-history-of-entrepreneurship-in-nigeria/>
12. <http://nigeria.smetoolkit.org/nigeria/en?gclid=CPam4-Wk3K8CFQrf4AodqCITiQ>
13. Moyi, E. D. (2003). "Networks, Information and Microenterprises: New Technologies and the Ambiguity of Businesses", *Information Technology for Development*, Vol. 10, No. 4, pp. 221 - 232.
14. <http://www.google.com.ng/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0CEoQFjAC&url=http%3A%2F%2Fwww.newsafrika.net%2Fen%2Fnews%2F1332%2Fupwardly-mobile.html&ei=cV-eT9XoAdHsggfYlvzvDg&usg=AFQjCNEYwF9pG05hPkloRRKPoXAYKd6rVQ>
15. Peterside, C. S. (2003) Small and Medium Enterprises (SME) as Critical Growth Engines: Actualizing Their Potentials in Nigeria. from <http://nigeriaworld.com/articles/2003/dec/192.html>
16. Silarszky P. Bhavnani, A, Chui, R. and Janakiram S. (2008) The Role of Mobile Phones in Sustainable Rural Poverty Reduction", ICT Policy Division Global Information and Communications Department (GICT). Retrieved December 15, 2009 from [http://siteresources.worldbank.org/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/Resources/The\\_Role\\_of\\_Mobile\\_Phones\\_in\\_Sustainable\\_Rural\\_Poverty\\_Reduction\\_June\\_2008.pdf](http://siteresources.worldbank.org/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/Resources/The_Role_of_Mobile_Phones_in_Sustainable_Rural_Poverty_Reduction_June_2008.pdf)
17. United Nations Economic and Social Council (2009). "Mobile Commerce in Africa: An Overview with Specific Reference to South Africa, Kenya, Senegal", Economic Commission for Africa. Addis Ababa 28 April – May 2009. Retrieved September 15, 2009 from <http://www.uneca.org/codist1/content/E-ECA-CODIST-1-23-EN.pdf>
18. World Bank Group African Region, Private Sector Unit (2006). "A Summary of Urban Investment Climate Analysis in Kenya". Note No. 35. Retrieved November 1, 2009, from 11
19. [www.siteresources.worldbank.org/INTAFRsuma/FTPS/.../aftpnote35E0610-17.pdf](http://www.siteresources.worldbank.org/INTAFRsuma/FTPS/.../aftpnote35E0610-17.pdf)
20. The Economist (2009). "The Power of Money". September 24 2009, retrieved November 9, 2009 from [http://www.economist.com/opinion/display/org.cfm?story\\_id=14505519](http://www.economist.com/opinion/display/org.cfm?story_id=14505519)
21. Warah, R. (2009, November, 9). "Mobile Telephony: Kenya No-So-Silent Revolution". *Daily Nation*, pp. 12