

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A
CASE STUDY OF ANCHOR BORROWERS PROGRAMME

**MOBILE PHONE FOR FINANCIAL
INCLUSIVENESS AND EMPOWERMENT: A
CASE STUDY OF ANCHOR BORROWERS
PROGRAMME**

Abdulhamid Aliyu Ardo
Efpraxia D. Zamani

Topic Area: - Ubiquitous and Mobile Information Systems

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A CASE STUDY OF ANCHOR BORROWERS PROGRAMME

Abstract

It is an unarguable fact that there exists a gender gap in access to financial services in developing countries. Lack of financial access leads to the inability of women to properly participate in both economic as well as social activities in their immediate societies. In this paper, we propose an investigation into how mobile phones can contribute towards financial inclusiveness and empowerment of female farmers in an insurgency-ravaged community in Nigeria. To this end, we propose an interpretive case study in order to understand the social context of mobile phone use by rural women who are engaged in farming activities, using Sen's Capability Approach as our theoretical lens.

Keywords: Empowerment, Financial inclusion, Interpretive research, Capability approach

1.0 Introduction

This research is focused on understanding how mobile phones contribute to the financial inclusiveness and empowerment of women farmers in a developing country like Nigeria. Financial inclusion in developing countries is a phenomenon that has been investigated by many researchers (e.g., Rhyne & Otero, 2006; Mayoux, 2010). An estimated 700 million unbanked people became account holders between 2011 and 2014 (Birochi & Pozzebon, 2016). Despite the increase in the number of banked people, rural dwellers, especially women, are still excluded from formal financial services (Kunt, Klapper, & Oudheusden, 2015).

In this research, financial inclusion is defined as the proportion of people having access to and using formal financial services (World Bank, 2014). This means that the people having access but not using financial services are equally financially excluded. Financial inclusion is proxied by account ownership, access to credit, and insurance penetration (Abor *et al.*, 2018). Thus, when people lack access to financial services, their ability to participate in economic as well as social activities are also reduced. This brings about financial hardship which ultimately increases the rate of poverty in the community. Lack of access to financial services especially in developing countries can be attributed to many factors, including high cost of service, poor infrastructure and religious or cultural factors (Lapukeni, 2015).

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A CASE STUDY OF ANCHOR BORROWERS PROGRAMME

Financial inclusion has been recognized as a vehicle for spurring economic activity especially in the developing regions of the world. It has the potential of reducing poverty, and increasing the productivity of small industries (Lapukeni, 2015). Despite the numerous benefits of financial inclusion, an estimated 2 billion adult population still remain without active bank accounts (Demirguc-Kunt *et. al.*, 2015). However, the ever increasing number of individuals who own mobile phones is expected to turn things around (Walsham, 2017).

In this research, we are particularly interested in studying the contribution of mobile phones in insurgency-ravaged communities of developing countries like Nigeria. In what follows, we discuss the motivation for this research, we introduce the research problem and unpack the proposed research design.

2.0 Motivation and Background

Mobile phones have impacted the world population more than any other technology (Rotberg & Aker, 2013; GSMA, 2013). About 3.2 billion people worldwide own a mobile phone (GSMA, 2013), and in Africa, East Asia and Latin America, it is estimated that 28.5%, 46% and 66% of the people own a mobile phone as of 2007, respectively (Andrianaivo & Kpodar, 2012). Even though developing countries are challenged by a huge lack in infrastructure, mobile phones are seen as a means to its impact. The increased ownership and usage of mobile phones may be due to its relative affordability, even by those living in the rural areas (Ouma *et. al.*, 2017). The mobile phone offers its users access to a wide range of services that were out of their reach in the recent past. The most important is access to financial services.

In order to increase productivity and decrease the numbers of financially excluded people, governments around the world are continuously introducing new ICT intervention programmes, targeted at these vulnerable populations. There has been a huge investment in ICT interventions in developing countries in the past few years aimed at empowering the poor (Dasuki & Abbott, 2015). In Nigeria in particular, these ICT interventions include licensing of mobile money operators (Adaba & Ayoung, 2017), introduction of the Growth Enhancement Scheme (GES) as well as the Central Bank of Nigeria (CBN) Anchor Borrower's Programme (ABP) (CBN, 2016), all of which are aimed at promoting financial inclusion through mobile phone technology.

ABP was launched in November 2015 with the aim of reducing poverty among rural farmers through increased access to financial services. The programme kick-started in all

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A CASE STUDY OF ANCHOR BORROWERS PROGRAMME

states of the federation with farmers forming cooperative groups of between 5 and 20 farmers (CBN, 2015). After harvest, Anchor companies are expected to buy the produce and give the farmers the cash equivalent. Similar agricultural schemes aimed at poverty reduction and empowerment in the past included the growth enhancement support scheme (GES). The GES scheme was aimed at rural farmers, facilitating the purchasing of farming implements, such as fertilizer, over a mobile phone directly from producers; thereby reducing corruption and middle men in the value chain (Nwalieji *et. al.*, 2015).

As agriculture continues to be the most dominant source of income for rural dwellers in developing countries like Nigeria, we consider farming as an important activity for studying the contribution of mobile phones towards financial inclusion initiatives (Ouma *et. al.*, 2017).

3.0 Research Problem

The number of people lacking access to financial services is on the increase in developing countries. It is therefore imperative to address the problem that financially excluded people face today, with the aim to identify ways to reduce the barriers for participating in economic and social activities. We specifically focus on female rural dwellers as they are those most impacted and denied access to formal financial services.

The extant Information Systems literature has shifted from discussing whether to how ICTs are empowering the poor (Walsham *et. al.*, 2007). Previous studies have looked at the contribution of ICTs such as the radio, television and fixed telephony (Andrianaivo & Kpodar, 2012). However, the contribution of mobile phones begun being discussed fairly recently. The explosion of mobile phone technology in African markets has effectively integrated a large proportion of the unbanked population into formal financial services (Ouma *et. al.*, 2017). Since the successes recorded by M-PESA in Kenya, mobile phones have been used as a tool for reducing the financial infrastructure gap, and have been shown to be a source of revenue and competitive advantage (Adaba & Ayoung, 2017). M-PESA has also led to a reduction in the cost of competing mobile money operators and increased banking penetration (Mbiti & Weil, 2011). Further, Jensen (2007) identified a positive impact of mobile phones in reducing price volatility in the fish markets. Similarly, there is evidence that mobile phones benefit farmers by helping them increase their income from the sale of farm produce (Wijeratne & Silva, 2014).

A number of studies have looked at the contribution of financial inclusion intervention projects on the economic growth of developing countries from the gender perspective (Abor

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A CASE STUDY OF ANCHOR BORROWERS PROGRAMME

et. al., 2018), however findings are inconsistent. For example, Swamy (2014) found that financial inclusion intervention projects in developing countries have led to an increase in income by 8.40% and 3.97% among women and men respectively. However, another study by Nanziri (2016) did not report any income variance between men and women in South African as a result of the introduction of a financial inclusion intervention project.

Within the IS literature specifically, the link between ICTs and gender has been documented since the mid-1990's (Walsham *et. al.*, 2017). However, early studies in the ICT4D domain have given very little or no attention to gender related issues. For example, Walsham and Sahay (2006) did not make any reference to gender differences. Over the recent years, there has been an increased attention towards these gender issues (e.g., Masika and Bailur, 2015), which is evidence of the criticality of gender issues for the ICT4D domain, where since women are important actors in most sectors where ICTs are introduced, including the agricultural, health and educational sectors. However, there is still a lack of clarity and consistency in the existing literature (Walsham, 2017).

To address this, the proposed study will analyse the mobile phones' role in promoting the financial inclusiveness of women within rural areas, where the majority of the populace is poor (Walsham, 2017). Our objective is to explore to what extent mobile phones promote development in a frail economy. We further focus on the development and empowerment of women farmers through mobile financial inclusion in a rural community ravaged by Boko Haram insurgency, particularly because insurgency impacts women disproportionately and fuels disparities.

Against this background, we follow the calls by different researchers (e.g., Orlikowski & Iacono, 2001; Chiasson & Davidson, 2005) for IS theory development within the ICT4D domain (Avgerou, 2010) and develop the following research questions:

How do mobile phones enhance women farmers' financial inclusiveness and empowerment in the rural areas affected by Boko Haram insurgency?

What are the factors that influence women farmers to use mobile phones for their own development in the rural areas affected by Boko Haram insurgency?

4.0 Research Approach

In order to address our two research questions, we adopt the interpretive research approach (Walsham, 2006). Interpretivism aims to explore and understand the social context of use of an IS, where reality is socially constructed due to the subjectivity of people's

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A CASE STUDY OF ANCHOR BORROWERS PROGRAMME

perceptions. For the context of this study, interpretivism seems to be the most suitable perspective because the social aspects of human life such as culture, politics and religion, which are integral for our understanding, can only be examined through assigning meaning to human actions.

The study will be carried out in Adamawa State, which lies in the North-Eastern part of Nigeria and is impacted by the Boko Haram insurgency. The North-Eastern part of Nigeria is an interesting region for studying women empowerment and financial inclusion through mobile phones for a number of reasons. First, the region is characterised by high levels of illiteracy and poverty (Usman, 2015). Second, the activities are only beginning to pick up with the recent reconstruction and rehabilitation of towns destroyed by the insurgents including mobile infrastructures and banking services.

5.0 Theoretical Lens

The choice of a theoretical framework in any research (ICT4D domain inclusive) depends on the aim of the study. It is key to any research endeavour as it aids the researcher to remain reflexive on what is being investigated (Gregor, 2006). In IS research, frameworks have been borrowed from psychology, anthropology, economics and computer science to mention a few.

For this study, we will be using Sen's Capability Approach (Sen 1984, 1992, 1993) as the preferred framework for this research. The Capability Approach is concerned with expanding human freedom in general and not narrowing it to just technological advancement or increase in personal income (Sen, 1999). In this respect, human freedom includes increased access to the web and the ability to increase ICT literacy levels (Sen, 2005). This approach is particularly valuable for our research because we seek to examine the contribution of an ICT4D intervention towards improving human well-being and supporting development through financial inclusion. The question that needs to be asked is if ICT4D initiatives are capable of empowering the rural population and what are they empowering the population to do (Dasuki *et. al.*, 2014).

The Capability Approach has been widely influential for the ICT4D research (Tshivhase *et. al.*, 2016). Many researchers have discussed its significance for looking beyond economic benefits and assessing the impact of ICT in promoting development in developing countries (Thapa & Saebo, 2014; Robeyns, 2006; Zheng & Walsham, 2008). For

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A CASE STUDY OF ANCHOR BORROWERS PROGRAMME

example, Smith *et al.* (2011), based on the Capability Approach, look into mobile phones and their contributions towards financial access through the expansion of their market boundaries, as a result of expanding citizens' functionings, such as increased access to government services. Similarly, Grunfeld (2014) studied how ICTs contribute to sustainable development through the lens of the Capability Approach, by expanding the capabilities of Cambodian farmers. Aricat (2015) adopted the same approach to investigate the use of mobile phones by migrants in Singapore, while Wahid & Furuholt (2012) investigated mobile phones in the Indonesian agricultural sector of Indonesia.

6.0 Method

The research design for the proposed study is that of a single case study (Yin, 2003), seeking to understand how mobile phones empower the women who are engaged in farming activities within Adamawa State, Nigeria. The case study method is an empirical inquiry into a contemporary phenomenon within its real-life context, where the boundaries between phenomenon and context become blurred and multiple sources of evidence are used (Yin, 1984). It is widely used for studying community-based problems (Johnson, 2006) and phenomena such as poverty, unemployment, and illiteracy, and allows their investigation from the participant's perspective.

The impact of Anchor Borrowers Programme as an ICT initiative has not been formally evaluated since its introduction in 2015 in an insurgency ravaged community. A recent study by Evbuomwan and Okoye (2018) tried to evaluate the prospects of the ABP scheme for small farmers in Nigeria and showed the impact of ABP on farmers with regards to improvement of yield per hectare of rice cultivation in Kebbi state. Another study by Zakaree *et al.* (2018) examined the impact of ABP on prices of agricultural commodity and employment generation in the same kebbi state. However, there is no other study in the authors' knowledge that have looked at the impacts of the programme with specific interest on women farmers within an insurgency ravaged community. Thus, an in-depth investigation through a single case study will allow us to understand its impact on women farmers in Adamawa State who participate in this programme (unit of analysis) and how mobile phones have contributed towards their financial inclusiveness and empowerment against the backdrop of insurgency.

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A CASE STUDY OF ANCHOR BORROWERS PROGRAMME

7.0 Data Collection Methods

Data will be collected through the usual approaches employed by IS interpretive studies, namely semi-structured interviews and field observations. In addition, we will use secondary material as well, such as previously published material regarding the topic and context under investigation, in conjunction with press and media reports. A significant practical problem with data collection is gaining access to women in a region of Nigeria where religion and cultural factors play a significant role in their lives. It is possible that some women may be somewhat unwilling to engage in conversation with men, other than their husbands and relatives. To address this challenge, these interviews will be conducted by the first author, who will identify himself first as a Muslim and as a native of the region. It is hoped that this will make many of the women to feel more relaxed and open to discussion. We will also engage as surrogates the few educated women among the farmers for the collection of data and information from their colleagues in order to approach those who may still be unwilling to participate. The collated material will be transcribed and analysed through thematic analysis (Braun and Clarke, 2006).

8.0 Expected Study Contributions

This study aims to make a theoretical as well as practical contribution to the ICT4D research domain in developing countries as explained below. With respect to our contribution to the existing literature, through the application of the Capability Approach, we will provide a rich description of the factors supporting female rural farmers in becoming empowered and financially included, focusing on an area impacted by insurgency. While there are IS studies that explore women empowerment through mobile phones, to date and to the authors' knowledge, research has not yet focused on the negative impact of insurgency and how it may counteract empowerment and financial inclusion.

The study's practical implications will be along the lines of providing empirical evidence to government and policy makers with respect to the impact of mobile phones and government-led ICT initiatives on women farmers in insurgent-afflicted regions to ensure financial inclusiveness. In light of the 2013 GSM mobile phone shutdown as a counterinsurgency measure, we consider that our findings will be of increased value, as they will highlight the unintended consequences (Jacob and Akpan, 2015).

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A
CASE STUDY OF ANCHOR BORROWERS PROGRAMME

References

- Abor, J. Y., Amidu, M., Issahaku, H. (2018). *Mobile Telephony, Financial Inclusion and Inclusive Growth*. Journal of African Business,
- Adaba, G. B., & Ayoung, D. A. (2017) “*The Development of a Mobile Money Service: An Exploratory Actor-Network Study*”, Information Technology for Development, vol. 23, No. 4, 668-686. <https://doi.org/10.1080/02681102.2017.1357525>
- Andrianaivo, M., & Kpodar, K. (2012) “*Mobile Phones, Financial Inclusion, and Growth*”, Review of Economics and Institutions, ISSN 2038-1379 DOI 10.5202/rei.v3i2.75. Vol. 3 – No. 2, Spring 2012 – Article 4
- Aricat, R. G. (2015) “*Mobile Ecosystem among Low-Skilled Migrants in Singapore: An Investigation into Mobile Usage Practices*”, Electronic Journal of Information Systems in Developing Countries, (68)4, pp. 1 – 15.
- Avgerou, C. (2003) ‘*The link between ICT and economic growth in the discourse of development.*’, in Mikko, K., Ramiro, M. and Angeliki, P. Organizational information systems in the context of globalization, New York: Springer.
- Birochi, R & Pozzebon, M. (2016) “*Improving Financial Inclusion: Towards a Critical Financial Education Framework*”, Revista de Administracao de Empresas, vol. 56 no.3 Sao Paulo May/June 2016. <http://dx.doi.org/10.1590/S0034-759020160302>
- Benbasat, I., Goldstein, D.K. and Mead, M. (1987) “*The Case Research Strategy in Studies of Information Systems*”, MIS Quarterly, pp. 369-386.
- CBN (2015). *Anchor Borrowers’ Programme Guidelines*, Development Finance Department, Central Bank of Nigeria, December, 2016
- CBN (2016). *Financial Inclusion Newsletter*, A Quarterly Publication of the Financial Inclusion Secretariat. April 2016, Volume 1 Issue 2
- Dasuki SI, Abbott P & Azerikatoa D (2014) *ICT and Empowerment to Participate: A Capability Approach*. Information Development, 30(4), 321-331.
- Dasuki SI & Abbott P (2015) *A socio-technical analysis of ICT investments in developing countries: A capability perspective*. Electronic Journal of Information Systems in Developing Countries, 67(1)
- Demirguc-Kunt, A., Klapper, L., Singer, D., Van Oudheusden, O. (2015). “*The Global Findex Database 2014: Measuring Financial Inclusion around the World.*” Policy Research Working Paper 7255, World Bank Group, Washington, DC
- Demirgüç-Kunt, L. Klapper, S. Dorothe, Peter Van Oudheusden. (2014) “*The Global Findex Database 2014: Measuring Financial Inclusion around the World.*” World Bank Policy Research Working Paper 7255, The World Bank, Washington, DC (2014)

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A
CASE STUDY OF ANCHOR BORROWERS PROGRAMME

- Evbuomwan, G., O. and Okoye, L., U. “*Evaluating the Prospects of the Anchor Borrowers’ Programme for Small Scale Farmers in Nigeria*”. 21st International Farm Management, McIntyre Conference Centre, Edinburgh, Scotland, United Kingdom
- Grace, J., Kenny, C., & Qiang, Z. (2003) *Information and Communication Technologies and Broad Based Development: a partial Review of the Evidence*. World Bank Working Paper, Technical Report 12. Washington: World Bank.
- Gregor, S. (2006) “*The Nature of Theory in Information Systems*”, MIS Quarterly Vol. 30 No. 3, pp. 611-642/September 2006
- Grunfeld, H. (2014) “*ICT for Sustainable Development: An Example from Cambodia*”, Journal of Community Informatics, (10)2.
- GSMA. (2013) *The Mobile Economy 2013*. Available:
<http://www.gsamobileeconomy.com/GSMA%20Mobile%20Economy%202013.pdf>
Last accessed 12th November 2017.
- Jacob, J., & Akpan, I. (2015). *Silencing Boko Haram: Mobile Phone Blackout and Counterinsurgency in Nigeria’s Northeast region*. Stability: International Journal of Security and Development, 4(1),: 1-17.
- Jensen, R. (2007). *The Digital Divide: Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector*. The Quarterly Journal of Economics, 122(3), 879-924. doi: [http:// dx.doi.org/10.1162/qjec.122.3.879](http://dx.doi.org/10.1162/qjec.122.3.879)
- Kunt, A. D., Klapper, L., Singer, D., & Oudheusden, P. V. (2015) *The global index database 2014: Measuring financial inclusion around the world*. The World Bank, Development Research Group. Finance and Private Sector Team, Washington, D.C, USA
- Lapukeni, A, F. (2015) “*Financial Inclusion and the Impact of ICT: An Overview*”, American Journal of Economics. p-ISSN: 2166-4951 e-ISSN: 2166-496X 2015; 5(5): 495-500. doi: 10.5923/j.economics.20150505.09
- Masika, R., & Bailur, S. (2015). *Negotiating women’s agency through ICTs: A comparative study of Uganda and India*. Gender, Technology and Development, 19(1), 43-69.
- Mayoux, L. (2010). *Reaching and empowering women: Towards a gender justice protocol for a diversified, inclusive, and sustainable financial sector*. Perspectives on Global Development and Technology, 9(3-4), 581-600. doi:10.1163/156914910x499822
- Mbiti, I. and Weil, D. N. (2011): “*Mobile Banking: The Impact of M-Pesa in Kenya*”. NBER Working Paper No.17129, Cambridge.
- Nanziri, E, L. (2016) “*Financial Inclusion and Welfare in South Africa: Is there a Gender Gap?*” Journal of African Development 2016, 18(2):109-134

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A
CASE STUDY OF ANCHOR BORROWERS PROGRAMME

- Nwalieji, H, U. Uzuegbunam, C, O. and Okeke, M, N. (2015) *Assessment of Growth Enhancement Support Scheme among Rice Farmers in Anambra State, Nigeria*. Journal of Agricultural Extension Vol, 19 (2) December, 2015; ISSN(e): 24086851
- Ouma, S., A. Odongo, T., M. & Were, M. (2017). *Mobile financial services and financial inclusion: Is it a boon for savings mobilization?* Review of Development Finance 7 (2017) 29-35.
- Rhyne, E., & Otero, M. (2006) *Microfinance through the next decade: Visioning the who, what, where, when and how*. The Global Microcredit Summit. Retrieved from www.microcreditsummit.org/papers/Plenaries/RhyneOtero.pdf
- Robeyns, I. (2006). "The Capability Approach in Practice", Journal of Political Philosophy (14)3, pp. 351-376.
- Rotberg, R. I., & Aker, J. C. (2013) *Mobile phones: Uplifting Weak and Failed States*. The Washington Quarterly, 36(1), 111-125.
- Sen, A. (1992) *Inequality Re-examined*, New York: Russel Sage Foundation.
- Sen, Amartya K. (1993), *Capability and Well-being in Martha C. Nussbaum and Amartya K. Sen (eds)*, The Quality of Life, Oxford: Clarendon Press, pp. 30-53.
- Sen, A. (1999) *Development As Freedom*, Oxford: Oxford Press.
- Sen, A. (2005) "Human rights and capabilities", Journal of Human Development, vol. 6, no. 2, pp. 151-166
- Sen, Amartya K. (1984), *Resources, Values and Development*, Oxford: Basil Blackwell.
- Smith, M. L., R. Spence, A. Rashid (2011) "Mobile Phones and Exanpanding Human Capabilities", Information Technologies & International Development, (7)3, pp. 77 - 78
- Swamy, V, (2014). *Financial Inclusion, Gender Dimension, and Economic Impact on Poor Households*. World development, 56, 1-15
- Thapa, D. and O. Saebo (2014) "Exploring the Link between ICT and Development in the Context of Developing Countries: A Literature Review", Electronic Journal of Information Systems in Developing Countries, (64)1, pp. 1 – 15.
- Tshivhase, M, Turpin, M, Matthee, M. (2016) "The Use of Sen's Capability Approach in ICT4D: An Exploratory Review." Association of Information Systems 2016 Proceedings
- Usman, S, A. (2015) "Unemployment and Poverty as Sources and Consequences of insecurity in Nigeria: The Boko Haram insurgency revisited", African Journal of Political Science and International Relations, Vol. 9(3), pp. 90-99, March 2015, DOI:10.5897/AJPSIR2014.0719

MOBILE PHONE FOR FINANCIAL INCLUSIVENESS AND EMPOWERMENT: A
CASE STUDY OF ANCHOR BORROWERS PROGRAMME

- Wahid, F, & Furuholt, B. (2012) “*Understanding the Use of Mobile Phones in Agricultural Sector in Rural Indonesia: Using the Capability Approach as Lens*”, International Journal of Information and Communication Technology.
<https://doi.org/10.1504/IJICT.2012.048761>
- Walsham, G. (2017). *ICT4D Research: reflections on History and Future Agenda*. Information Technology for development, DOI: 10.1080/02681102.2016.1246406
- Walsham, G. (2010) ‘*ICTs for the broad development of India: An analysis of the literature*’, Electronic Journal of Information Systems in Developing countries, vol. 41, no. 4, pp. 1-20.
- Walsham, G., Robey, D. and Sahay, S. (2007) ‘*Foreward: Special Issue on Information Systems in Developing Countries*’, MIS Quarterly, vol. 2, pp. 317-326
- Walsham, G. and Sahay, S. (2006). ‘*Research on Information Systems in Developing Countries: Current Landscape and Future Prospects*’, Information Technology for Development, vol. 12, no. 1, pp. 7-24.
- Waverman, L., Meschi, M., & Fuss, M. (2005) “*The Impact of Telecoms on Economic Growth in Developing Countries*. The Vodafone Policy Paper Series, 2, 10-23. doi: <http://dx.doi.org/10.1016/j.jeconom.2004.02.005>”
- Wijeratne, M., & Silva, N. D. (2014). *Mobile Phone Intervention for Sri Lankan Mushroom Producers*. Asian Association of Open Universities Journal, 9(1), 57-63.
- Yin, R.K. (2003) *Case Study Research: Design and Methods*, London: Sage
- Zakaree, S. S., Alexander, A. A., Abdulmumin, A. I., Adeneye, O, A. “Anchor Borrowers Programme on Agricultural Commodity Price and Employment Generation in Kebbi State, Nigeria”, European Scientific Journal May 2018 edition Vol. 14, No. 13 ISSN: 1857 – 7881 (Print) e-ISSN 1857 - 7431
- Zheng, Y and G. Walsham (2008) “*Inequality of what? Social exclusion in the e-society as capability deprivation*”, Information Technology & People (21) 3, pp. 222 - 243