ACCESSIBILITY TO MICROFINANCE AND ITS IMPACTS ON POVERTY ALLEVIATION IN SOUTH-WEST NIGERIA

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DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
January 2016

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Thesis Submitted to
School of Economics, Finance and Banking
Universiti Utara Malaysia,
in Fulfillment of the Requirement for the Degree of Doctor of Philosophy

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ABSTRACT

Poverty is a world phenomenon. Its consequences are traumatic and dehumanizing. Several measures and strategies have been used to alleviate poverty and enhance economic empowerment. One of the economic measures is the Microfinance programme. In Nigeria, government had made efforts to alleviate poverty by creating economic opportunities in various forms and empowering the poor through education and financial resources. But the efforts proved elusive and poverty still remains pervasive and widespread especially in the rural communities in Nigeria. The objective of this study is to estimate the determinants of the accessibility to microfinance and its impacts on poverty alleviation in Nigeria particularly in the South-West Zone of the country. A total sum of 1,134 microfinance loan beneficiaries and non-beneficiaries were sampled from three out of the six states in the zone. Applied econometric techniques for development economics like logit and ordered logit regression models; with difference-in differences estimation approach were employed to analyse the data; and the Propensity Score Matching estimators were used to evaluate the potential selection bias. The results identified factors like age, business worth, health status and living standard as germane to microfinance accessibility by the rural poor. The impacts of microfinance loan are positive on poverty alleviation and income, but there is need for improvement; while the programme did not have substantial improvement on the living standard, consumption and health status of the poor in the study area. Government is implored to provide enabling environment for the MFIs and monitor the activities of the latter for better service delivery. MFIs are also advised to create more awareness on their operations and make less stringent conditions for the loan accessibility. The study is significant for academic research, policy formulation and economic planning.

Keywords: economic development, poverty, microfinance, survey, Nigeria

ABSTRAK

Kemiskinan merupakan suatu fenomena dunia. Akibat kemiskinan adalah trauma dan menyebabkan kehilangan sifat-sifat perikemanusiaan. Beberapa langkah dan strategi telah digunakan untuk membasmi kemiskinan serta meningkatkan aspek pengupayaan ekonomi. Salah satu daripadanya adalah program pembiayaan mikro (*Microfinance*). Dalam konteks Nigeria, kerajaan telah melaksanakan usaha untuk membasmi kemiskinan dengan menyediakan peluang ekonomi dalam pelbagai bentuk dan memberi peluang kepada golongan miskin melalui pendidikan dan sumber kewangan. Namun, usaha ini terbukti tidak berhasil dan kemiskinan masih berleluasa dan meluas terutamanya di kawasan luar bandar di Nigeria. Objektif kajian ini adalah untuk menganggar penentu-penentu kepada akses pembiayaian mikro dan kesan pembiayaan mikro terhadap pembasmian kemiskinan di Nigeria terutamanya dalam Zon Selatan-Barat. Data telah dikumpulkan daripada 1,134 penerima serta bukan penerima pembiayaan mikro di tiga daripada enam negeri dalam zon tersebut. Teknik ekonometrik gunaan untuk ekonomi pembangunan seperti model regresi *Logit* dan *Ordered Logit*; dengan pendekatan penganggaran *difference-in-difference* telah digunakan untuk menganalisis data; dan penganggar *Propensity Score Matching* telah digunakan untuk menilai kewujudan bias *selection*. Hasil kajian telah mengenal pasti faktor-faktor seperti umur, nilai perniagaan, status kesihatan dan taraf hidup sebagai faktor yang relevan untuk akses pembiayaan mikro oleh golongan miskin luar bandar. Kesan pembiayaan mikro ke atas pembasmian kemiskinan dan pendapatan adalah positif, tetapi masih ada ruang untuk penambahbaikan; manakala, program ini tidak menunjukkan peningkatan yang besar kepada taraf hidup, penggunaan dan status kesihatan golongan miskin di kawasan kajian. Kerajaan berjanji untuk menyediakan persekitaran yang membolehkan kejayaan MFI dan mengawal aktiviti-aktiviti MFI untuk memberi perkhidmatan yang lebih baik. MFI juga dinasihatkan supaya meningkatkan kesedaran tentang operasi mereka dan mengurangkan syarat-syarat ketat ke atas akses pinjaman. Kajian ini adalah penting untuk penyelidikan akademik, penggubalan dasar dan perancangan ekonomi.

Kata kunci: pembangunan ekonomi, kemiskinan, pembiayaan mikro, tinjauan, Nigeria

ACKNOWLEDGEMENT

All praise and adoration are due to Allah, without Whose mercy and guidance nothing can be achieved. My special thanks go to my supervisors- Dr. Siti Aznor Bt Hj Ahmad and Associate Professor Dr. Lim, Hock Eam for their motivation, kindness, care, generosity, constructive criticisms, and continued assistance accorded me throughout the course of my programme. Thank you very much for your invaluable suggestions that have assisted me to achieve this feat.

My gratitude is extended to Associate Professor Dr. Siti Hadijah Che Mat, Dr. Muhammad Azam and Dr Nor Azam Abdul Razak for their comments and suggestions during my Proposal Defense session. The magnanimity and encouragement of Associate Professor Dr. Salahuddin Hassan for PhD students sitting-in for Applied Econometrics course is also appreciated. To my friends both UUM faculty members and students too numerous to mention their names one after the other, I say BIG thank you for your association and unflinching support throughout my stay in Malaysia.

The efforts of the staff and customers of microfinance institutions contacted during my pilot study and field survey are also commendable. Without their cooperation, it would not be possible to collect data for this study. Thank you so much.

Finally, and the first on the list are the members of my household. To my better half, Rhadhya, I would always appreciate your love and efforts in managing the home front relentlessly during my studies. To my gracious gifts from Allah- Dr. Ibrahim, Yusuf; Mohammad and Aishat (twins), Abdullah and Aminat; my nephew Abdul Quadri; and my aged mother Alhaja Mariam, am grateful for your prayers, endurance and patience during my absence from home. I thank you all.

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ABBREVIATIONS

AIM	- Amanah Ikhtiar Malaysia
AIMS	- Assessing the Impact of Microenterprise Services
ATT	- Average Treatment effect on the Treated
BRAC	- Bangladesh Rural Advancement Committee
BTI	- Bertelsmann Stiftung's Transformation Index
CA	- Capability Approach
CBN	- Central Bank of Nigeria
DCT	- Discrete Choice Theory
DID	- Difference-in-Differences
EFInA	- Enhancing Financial Innovation and Access
EPH	- Expenditure per Head
FAO	- Food and Agricultural Organisation
GDP	- Gross Domestic Product
HDI	- Human Development Index
HEPM	- Household Economic Portfolio Model
HPI	- Human Poverty Index
IDA	- International Development Agency
IMF	- International Monetary Fund
LAPO	- Lift Above Poverty Organization
MDGs	- Millennium Development Goals
MENA	- Middle East and North Africa
MFIs	- Microfinance Institutions

M & A - Mergers and Acquisition

MIX - Microfinance Information Exchange

MPI - Multidimensional Poverty Index

NAMB - National Association of Microfinance Banks

NAPEP - National Poverty Eradication Programme

NDIC - Nigeria Deposit Insurance Corporation

NBS - National Bureau of Statistics

NDE - National Directorate of Employment

NEEDS - National Economic Empowerment and Development Strategy

NGOs - Non-Government Organisations

NLSS - Nigeria Living Standard Survey

NPC - National Population Commission

OMO - Open Market Operations

OPHI - Oxford Poverty and Human Development Initiative

PLA - Participatory Learning and Action

PRSPs - Poverty Reduction Strategic Papers

PSM - Propensity Score Matching

RETRAFECT - Retrospective Analysis of Fundamental Events Contiguous to Treatment

ROSCAs - Rotating Savings and Credit Associations

SMEs - Small and Medium Enterprises

UNDP - United Nations Development Programme

UNESCO - United Nations Educational Scientific and Cultural Organisation

NPC - National Population Commission

UN	- United Nations
UNO	- United Nations Organisation
USAID	- United States Agency for International Development
USD	- United States' Dollar
VIF	- Variance Inflation Factor
WHES	- World Hunger Education Service

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The problem of rising poverty was prominent among the developing countries of the world in the 1980s. This was mainly the consequence of the oil crises of the 1970s and the economic recession of 1980s (Stewart, 2005). With this experience, several countries enacted policies and programmes targeted at combating poverty and enhancement of economic development. The results of these efforts are yet to make much impact on the affected economies. Even for more than six decades after the Second World War, reports and records show that many countries are still languishing in high rate of poverty with increasing gap between the rich and the poor. All the measures established to solve the problem of poverty are nearly elusive; as development, that accounts for poverty alleviation and total eradication of unemployment and inequality was rare to be found in most of the countries, particularly the developing economies.

Grabowski, *et al*. (2007) conceptualises economic development as the combination of self-sustaining economic growth, structural changes in the level of production, technological advancement; modernization of social, political and institutional activities, and sustainable improvement in the people's well-being. Suffice to say that no meaningful economic development can be achieved without adequate policies and programmes that will empower the poor to have their means of livelihood. According to

Agenor (2005) there is no justification for any country to be regarded as progressing or advancing when majority of her citizens are still in poverty and hunger.

Poverty and hunger mostly affect the rural households. It also prevents the rural community from investing in their own means of development. Poverty, as believed by some few elites is a necessary evil that can serve as a motivator to the poor. To these elites, the poor are being motivated to work as a result of the deprivations and denial of customs and other social activities acceptable to the society (www.poverty.ac.uk). The poor are being denied their share of the nation's resources and other necessities that are generally available in the society for their comfort. Studies have shown that poverty restricts the school age children from attending schools due to lack of fund. The consequence of this is higher adolescent birth rates particularly among girls. This problem further escalates the already economically overstressed poor communities. Hence, the Millennium Development Goal number one is to reduce poverty and hunger worldwide by 50 percent in the year 2015. Eradicating poverty constitutes political, ethical, social and economic imperative of mankind. It is therefore revealing that only one scheme cannot solve the problem of poverty but should involve policy measures that will cut across the sectors like education and well remunerated labour option (Smith, 2010). Provision of basic commodities and services is another measure that can alleviate poverty. This can be used in particular to avoid social discontent (Abdel-Baki, 2012).

Poverty is a multi-faceted fabric which involves economic, social, cultural and psychological dimensions. It is a worldwide multidimensional phenomenon whose

consequences are dehumanizing, devastating and traumatic. Poverty connotes deprivation of the essential benefits that can improve the welfare of the poorest.

In essence, a person is regarded as poor if he/she has a much lower income below the poverty line and is deprived of any real access to basic services (health, adequate accommodation and education). In fact, in order to have any reasonable economic growth and poverty reduction, there must be policy measures targeted towards the accessibility of social services like health and education (National Bureau of Statistics, 2012). In a given population, the poor are those whose incomes are lowest and who therefore consume least. The concept of poverty can be likened to the theory of distributive justice which clarifies that in a "just" society, a person classified as poor is supposed to be assisted with some income support (Azam, 2003). People that live below $1 per day are classified as poor. They are those who have the worst quality of life. Poverty reduction can rightly be seen as enabling or empowering individuals to get them out of poverty; not only to increase the income and assets of households or individuals but also to increase the social services and security of the people. Poverty reduction will therefore entail development of human capital and the availability of infrastructural facilities that will support the efficiency of the poor (Sackey, 2011).

It has been asserted that poverty is the World's most demanding development challenge that requires adequate attention(World Bank, 2013). According to James D. Wolfensohn, former World Bank President, "Poverty amidst plenty is the world's greatest challenge". This implies that the poor countries do not necessarily lack adequate resources but they

are not efficiently managed and distributed, thereby causing poverty and inequalities; hence, Sub-Saharan Africa remains the poorest region in the World (World Bank, 2013).

Poverty and starvation can be traced to injustice, violation of fundamental human rights and deprivation of human freedom. It is therefore an obligation for nation states to map out strategies that would eradicate poverty (Kokaz, 2007; Musarandega, 2009). Ironically, in Sub-Saharan Africa which is considered as the World's poorest region, the concept of poverty is relatively understudied and has attracted less attention in academic literature (Ssewamala, Sperber, Zimmerman & Karimli, 2010).

Hunger, which shows the inability to obtain minimum calories and protein food in a country, is one of the important dimensions of poverty. According to 2013 World Hunger and Poverty Facts and Statistics, almost one in eight people in the world were affected by malnutrition in 2010-2012. The report further expressed that "almost all the hungry people, 852 million, live in developing countries, representing 15 percent of the population of developing countries". In Sub-Saharan Africa, hunger rises 2 percent annually since 2007. The statistics shows that from Year 2010 to 2012, the population of people affected by hunger increased from 175 million to 239 million. This indicates that nearly one in four Africans are hungry. The number of hungry people also rises from 13 million in 2004 - 2006 to 16 million in 2012 in the Developed regions. This was revealed in Food and Agricultural Organisation 2012 (WHES, 2013). Malnutrition, as an agent of poverty has more damages particularly in children. For instance, malnourished pregnant women give birth to children with low birth weight. It can also cause high child mortality

rate, learning disabilities, mental retardation, blindness and poor health. Hunger can also aid maternal death. But what is really responsible for hunger? Poverty has been adjudged to be the main cause of hunger.

In the light of this, and recognizing the importance of the devastating effect of poverty and inequality, the international level of finance and governance create more awareness and take steps that usually favour the upliftment of the poor. For instance, the World Bank, United Nations (UN) and International Monetary Fund (IMF) develop programmes and projects that would aid the improvement of the life of low income and poor people, ensure their health improvement and sustainable growth and development (Ssewamala,*et al*. 2010).

It is on record that about half of the world's population (about three billion people) lives on income of less than two dollars a day (Goel & Rishi, 2012). This is also aggravated by the fact that one child out of five living in these poor communities does not live to see his or her fifth birthday! Hence, in September 2000, the United Nations declared Millennium Development Goals (MDGs) in order to ensure global development. The major policy thrust of this program is to make life more meaningful to the poor and downtrodden. By implication, reduction of poverty and hunger is adjudged to be the basic root of all other problem issues focused on MDGs (Kalirajan & Singh, 2009).

Table 1.1 shows that no country is free from poverty even the advanced nations that record high growth rate are plagued by high unemployment which is another indicator of

poverty. This connotes that countries should not rely on growth rate to tackle the menace of poverty but take specific strategies directed towards poverty alleviation. Also to be noticed in Table 1.1 is that the number of people trapped in extreme poverty has increased tremendously in Sub-Saharan Africa. In this table, the Sub-Saharan Africa has 50.9 percent of its population in extreme poverty level. It is the highest percentage out of the regions in the whole world. This is a clear manifestation that extreme poverty remains an alarming problem in developing countries in general and in Sub-Saharan Africa in particular (WHES, 2013).

Table 1.1
Poverty Indicator

Region	**% in $1.25 a day poverty**	**Population (millions)**	**Pop. in $1 a day poverty (millions)**
East Asia and Pacific	16.8	1,884	316
Latin America and the Caribbean	8.2	550	45
South Asia	40.4	1,476	596
Sub-Saharan Africa	50.9	763	388
Total Developing countries	28,8	4673	1345
Europe and Central Asia	0.04	473	17
Middle East and North Africa	0.04	305	11
Total		5451	1372

Source: World Bank PovcalNet "Replicate the World Bank's Regional Aggregation" cited in 2013 World Hunger and Poverty Facts and Statistics.

It is therefore important to pose the following questions: What are the causes of disparity of wealth and inequality among the regions of the world? Why should there be widening gap between the developed nations and the developing ones? Why should some countries be in affluence while others are walloping in abject poverty? Why should the rich countries continue to be rich while the poor ones continue to be poor? The literature supports the fact that the differences in the poverty incidence and by extension in the

level of development of each country is not unconnected with the degree of openness, institutional differences, human capital development, integration, technology, natural resource endowments, market structures, population density, government policies, geography, technology and trade integration (Grabowski *et al*., 2007). This can be substantiated with the summary of the economic development activities of the regions as follows.

The growth in the European economy commenced with the increase in productivity and output that started with industrial revolution. This was fostered by the international trade that yielded increase in income and provision of employment opportunities for the rural households. The trade enables Europe to enjoy more profit. All these achievements are at the detriment of the development of other countries in the world, mostly the developing ones.

In the East Asian region which comprises Japan, China, Taiwan and South Korea; the level of their development and production is fastened by productive and dynamic agricultural development that later complement the industrialization programmes. The rapid economic development is further enhanced by the struggle to catch up with the Western industrial nations like England, France, Germany and United States.

As earlier enunciated, Sub-Saharan Africa extremely lagged behind the rest of the world in terms of poverty incidence and its concomitant economic underdevelopment. Apart from few countries like Botswana and South Africa; the Per-capita Gross Domestic

Product (GDP) of the rest of the countries in the region tremendously declined on average for the past several decades. This appalling scenario has been afflicted by incessant political instability, civil war and violence at an alarming rate. However, the misery is not unconnected with the adverse effect of the European colonialism on the political, social and economic activities of the region which lead to the "patron-client" structure. Unlike the other regions, their economic development programmes are strongly complemented by extensive investment in agriculture. Sub-Saharan Africa suffered a major setback as a result of neglect of agricultural sector. Hence, the countries turn to mere supplier of minerals and primary products to develop the countries of their colonial masters; and they concentrate on urban-bias policies that further compound the rural poverty.

In the South Asian region, which consists of countries like Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri-Lanka; the development activities are mixed in literature. The region is adjudged to be the second fast growing economy after East Asia, with an average annual growth rate of 5.3 percent. This notwithstanding, over one-third of the people in the region live below the international poverty line of $1 a day (Grabowski *et al*., 2007). Most of the countries in the region rely on the agriculture sector as the main source of revenue. For decades, the region was plagued by underdevelopment in all its ramifications until early 1990s when the economic activities improved and they are able to record significant reduction in poverty dimensions.

Most of these regions used the Poverty Reduction Strategic Papers (PRSPs) sponsored by the World Bank to find solution to the problem of poverty; together with concessional

loan from the International Development Agency (IDA), the World Bank's affiliate that lends interest-free loans to the world's poorest countries. Being endowed with natural wealth, the rapid economic expansion in Latin America was augmented by sustainable growth and development of exports together with the dynamic promotion of its industrialization.

The Middle East and North Africa's (MENA) early Islamic economic institutions and the discovery of oil wealth in most of the countries in the region have accelerated the level of their economic growth. But this was later slowed down by resource curse that occurred as a result of fluctuations in oil revenues. The major threat to the region's economic growth is the political instability. The latter cause the countries in the region to divert a lot of resources, which are supposed to be used for economic development programmes; to military budget.

In most of the regions of the world, agriculture sector has played a crucial role in poverty reduction and economic development. It is therefore expedient for the developing nations to revitalize their agriculture sector with reasonable investments and provision of infrastructural facilities that will aid the poverty alleviation crusade and economic development. Moreover, the less developed countries must engage in rapid export promotions and import substitution programmes for rapid development.

To alleviate poverty therefore requires development strategies geared towards the improvement of quality of lives; by raising the level of economic wellbeing, freedom and

capabilities for self-actualization (Todaro & Smith, 2011:5). One of the development approaches used to alleviate poverty is microfinance. This is a bottom-up approach that focuses on the individual's potential that can be used for social capital development. Microfinance has emerged as a financial intermediation for the poor due to the failure of commercial and merchant banks to assist the low income people. The concept that microfinance assists the poor people; alleviate poverty by contributing to the microenterprises investment and increase the income of the poor, has led to the establishment of a global debate known as "microfinance revolution" (Imai & Azam, 2010).

Although the initiative to extend credit access to the low income earners began in 1960s but it was more pronounced in 1989 when the World Bank devoted special attention to it in the publication of World Bank annual report in 1989 (Smahi & Benhabib, 2011). In 1997, the World Summit on Microcredit considered microfinance as a functional approach to financing development including poverty reduction. This trend was followed in 2004 by the Tenth Francophone Summit in Ouagadougou, when some heads of states of some Southern countries were committed to give adequate support to Microfinance Institutions (MFIs) and ensure that the latter are adequately involved in the conventional financial sector (Smahi & Benhabib, 2011). The agitation extending credit facilities to the poor was further reinforced in 2006 when a target was set in Halifax to grant credit to 175 million poorest families in the world for self-employment and business, and other financial services, and; to ensure that at least 100 million families rise above the threshold of US$1 a day by 2015 (Daley-Harris, 2009).

The accessibility and utilization of microcredit for the development of micro- business is expected to play a vital role in the reduction and alleviation of poverty, particularly in the developing countries where it is estimated that only 5 percent of the demand for micro-credit services is met (Vincent, 2004). The concept of microfinance development is based on the fact that the poor possesses the ability to generate wealth through the "income generating economic activities" but is handicapped by the lack of credit, savings and insurance facilities. Providing the poor with necessary credit will not only empower them to increase their wealth but also create needed economic opportunities for economic growth. It should be noted that the key motivator for the establishment of microfinance programme was poverty eradication (Brau & Woller, 2004). The development of microfinance therefore has been tailored towards the provision of socio-economic services to the poor in order to achieve their intended goals (Arun, Imai, & Sinha, 2006). Microfinance is always referred to as the bank for the poor because it provides financial services to the poor who are directly and indirectly alienated from the formal financial systems. It is also generally believed that the basic idea behind microfinance programme is to alleviate poverty and at the same time work efficiently for favourable results including profitability. Thereby, the Microfinance Institutions (MFIs) are "doing well by doing good" as they render social services and at the same time ensure profitability in their operations (Brau & Woller, 2004). However, in spite of these laudable objectives, the negative effects of poverty is still manifesting in Sub-Saharan Africa in particular and developing economies in general after the introduction of microfinance programmes.

1.2 Problem Statement

Poverty crisis has caused untold hardships for numerous societies. Ranging from hunger, poor clothing, ill health, lack of decent accommodation; poverty has extended its havoc to more devastating societal ills like civil unrest, human suffering and environmental degradation. This has motivated researchers, particularly in Asian countries and Latin America to embark on comprehensive studies that would proffer more practicable solutions to the menace. And one of the possible solutions is the introduction of microcredit through microfinance programmes. Although microfinance is not a magic that automatically alleviates poverty, but the overall impact assessment shows positive trend in the right direction.

In Nigeria, the main strategic policy thrust on poverty alleviation is to create economic opportunities in various forms and empower the poor through education and financial resources. To this end, the Nigeria government established several programmes to alleviate poverty. In 1972, the National Accelerated Food Production Programme was inaugurated to boost the food production through an on lending fund from the Nigeria Agricultural and Cooperative Bank. In 1976, Operation Feed the Nation was established to provide extension services to farmers in the rural areas. While The Green Revolution programme of 1979 was to put an end to food importation and encourage the production of more crops and fiber. Others programmes that were established to alleviate poverty are: The Directorate of Food Road and Rural Infrastructure (DFRRI) which was established in 1986 to provide rural development infrastructural facilities like feeder roads, electricity and portable water; in order to open up the rural areas for development

and minimize rural urban migration. The Community Bank (CB) and The People's Bank of Nigeria (PBN) commenced operation in 1989/90 to provide loans to the poor and low income earners who could not obtain same from the commercial banks due to the latter's requirements. In 1993, poverty related programmes like The Family Economic Advancement Programme (FEAP), the Better Life Programme (BLP), and The Family Support Programme (FSP) were targeted at women in order to alleviate their poverty incidence; and improve their livelihood. The Mass Mobilization for Self-Reliance (MAMSER), The National Directorate of Employment (NDE), The Petroleum Special Trust Fund (PTF), The Mass Transit Programme (MTP), The Agency for Mass Literacy, National Economic Empowerment and Development Strategy (NEEDS); and the Microfinance Banks programmes were also established at different time periods to combat poverty and empower the poor to cross the poverty line.

The persistent escalation of poverty level in Nigeria, particularly in the rural area, is a clear manifestation of ineffectiveness of these programmes. Causes of this failure have been identified: as politicization of poverty programmes, mis-targetting the poor who are supposed to be the beneficiaries of such programmes as the rich always benefit instead of the target poor, lack of continuity and consistency in the policy measures. Other identified causes are corruption and lack of due diligence on the part of government functionaries, lack of reliable and realistic data for proper planning, inadequate coordination of most of the programmes and lack of effective poverty alleviation strategies (Egwemi & Odo, 2013; Innocent, Eikojonwa & Enojo, 2014; Obadan, 2001; Obikeze, Ananti, & Onyekwelu, 2015; ; Sola, 2006).

The situation in the country has confirmed the assertion that, economic growth is not the best judge of reduction in poverty (Evier & Ravallion, 1995; Obadan, 2001). Giving the breakdown of the trend of poverty rates in the country, the National Bureau of Statistics (NBS) laments that the magnitude of the people below the poverty line has increased tremendously despite the fact that Nigerian economy is ironically growing. For instance in 1980, the proportion of Nigerians living below the poverty line increased from 17.1m (27.2% of 65m total population) to 34.7m in 1985 (46.3 % of the total population of 75m). The people living in poverty in 1992 were 39.2m (42.7% of the total population of 91.5m). This figure increased to 67.1m in 1996 (65.6% of the total population of 102.3m). However, as shown in Table 1.2, the population of Nigerians trapped in poverty increased fourfold in absolute terms between 1980 and 1996. In 2004, the people in poverty were 68.7m (54.4% of the total population of 126.3m), the proportion of people living below property line rose sharply in 2010 to 112.47m (69% of the estimated population of 163m) (National Bureau of Statistics,2012). Table 1.2 below further clarifies this analysis.

Table 1.2
Poverty Incidence in Nigeria from 1980 – 2010

Year	Poverty Incidence (%)	Estimated Population (Million)	Population in Poverty (Million)
1980	27.2	65	17.1
1985	46.3	75	34.7
1992	42.7	91.5	39.2
1996	65.6	102.3	67.1
2004	54.4	126.3	68.7
2010	69	163	112.47

Source: Nigeria Poverty Profile 2010. National Bureau of Statistics (NBS, 2012)

The government's response to the worsening condition of the poor continued by expending heavily towards the eradication of poverty, but the situation remains. The level of unemployment continued to rise, while poverty conditions escalated. In its bid to alleviate poverty, the government of Nigeria recognized the need to create a conducive environment for investment. It initiated and launched the Poverty Alleviation Programme (PAP) within the framework of Budget 2000. The programme was designed to provide employment for 200,000 people and the sum of N10 billion was set aside for it. The programme was implemented in every state of the Federation and it provided jobs for 214,367 people who were paid stipends of N3, 500 per month. In January, 2001, the Poverty Alleviation Programme was phased out and replaced with the National Poverty Eradication Programme (NAPEP), which has the responsibility for coordinating and monitoring the activities of the core Poverty Eradication Ministries and Agencies.

The major policy thrust of the National Poverty Eradication Programme (NAPEP) is to eradicate absolute poverty in Nigeria by the year 2010. This is based on the premise that about 70 percent of Nigerians live below the poverty line. NAPEP has provided strategies for the eradication of absolute poverty by streamlining and rationalization of existing poverty alleviation institutions; and coordinated implementation and monitoring of relevant schemes. Among such schemes is the Credit Delivery Programme (CDP) through the Micro-Finance Banks. It is therefore highly exigent to assess the impact of microfinance in Nigeria vis- a- vis poverty. Has microfinance played any important role in alleviating poverty in Nigeria? Has it improved the standard of living of the rural poor?

Has microcredit made any meaningful contribution to the socioeconomic upliftment of the beneficiaries? These are part of the questions that this thesis is set to answer.

This study has its target on the rural poor as statistics have confirmed that the rural sector harbour more poor and impoverished people, hence, poverty is one common feature of rural existence in Nigeria (Chukwuemeka, 2009; Egwemi & Odo, 2013). Table 1.3 depicts the contribution of Urban and Rural sectors to the poverty incidence.

Table 1.3
Poverty Contribution by Sector

Sector	Incidence	Contribution
Urban	43.2	35.0
Rural	63.3	65.0

Source: National Bureau of Statistics (NBS, 2006:25)

In 1997, Nigeria was ranked 54th in the Human Poverty Index (HPI) and among the twenty poorest countries in the world (CBN, 2005). As an evidence, it was claimed that about 92% of the Nigerian population survive on less than $2 on daily bases while 71% live with less than $1 daily (UNESCO, 2010). Consequently, it was lamented that Nigeria and other African countries must take drastic measures to improve the conditions of living in their countries; otherwise, they will not be able to meet the 2015 target goals for MDGs (UNDP).

The enumerated government efforts notwithstanding, poverty still remains widespread and pervasive particularly in the rural communities. Nigeria is yet to ensure national food security. Most of the communities still lack steady source of income that can

accommodate basic health care facilities, well embraced qualitative education, good standard housing units, cheap and affordable consumer products; and enabling environment for production and trade. According to 2013 World Bank Data, maternal mortality rate in Nigeria was about 560 for every 100,000 births. What can then be adduced to this malignant monster called poverty? Could it be that the programmes are not well implemented or do they lack proper monitoring? Do the credit facilities reach the targeted beneficiaries or are there some impediments that make this impossible? What are the basic criteria used to measure the severity of poverty?

From all indications, one can infer that if pragmatic actions are not urgently taken, the poverty in Nigeria would be deepened and this will slow down the economic growth and development. This is supported by the statistics depicted in Table 1.2 which confirm the increasing trend of Poverty Incidence in Nigeria.

Microfinance has been used on several occasions to reduce poverty, in rural areas in particular which are believed to harbour the poorest people in the world. It is an important aid that can improve the economic performance of the poor. The poor people need microfinance to improve their entrepreneurial skill and socio economic needs. But the poor people could not meet up with the requirements of the conventional banks and microfinance is not reachable. They continue to wallop in abject poverty and vicious circle.

Microfinance Institutions and programs have been recognized as agency of development strategy by serving as important tool for poverty reduction and upliftment of micro and small enterprises. It is expedient to assess the impact of microfinance programmes as literature is full of controversy as to the benefits derivable from such programmes. At one end is the argument that microfinance has some economic and social impacts on its beneficiaries (Kato & Kratzer, 2013; Khandker, 2005); at the other end is the notion that the benefits are being exaggerated because microfinance has not been able to reach the core poor and should be considered as partial panacea not a total magic to alleviate poverty, and that microfinance have some negative impacts (Adams & Von Pischke, 1992; Chowdhury, 2009; Weiss, Montgomery & Kurmanalieva, 2003); those who take the middle stand agree that the programmes have some benefits but they do not assist the poorest (Martin, Hulme, & Rutherford, 2002). With this background, it becomes essential therefore for development experts, researchers and policy makers to assess the impact of microfinance programmes (Hulme, 2000).

Accessibility to finance particularly by the rural poor has some benefits that can alleviate poverty. For instance access to microfinance can enhance investment in income generating activities that will lead to persistence increase in household income; increase in assets accumulation and household expenditure; improvement in health status and socio-economic wellbeing of the beneficiaries. These benefits can even have spillover effect on non-beneficiaries (Hermes & Lensink, 2011). Studies have revealed that the percentage of Nigeria's population that have access to formal financial services is one of the lowest in the entire African continent as 86 percent of the rural Nigerian adults are

unbanked (EFlnA, 2008). Consequently, less than 2% of rural households have access to formal financial services (CBN, 2005). While only 0.68 percent of Nigerians has microinsurance cover; this is supposed to provide a means of managing some risks and comfort to low- income households often vulnerable to such crises (Onukwugha, 2013).

The inaccessibility to the microfinance institutions is one of the major issues that form the research question for this study. And is one of the objectives that are paramount to the study. The research investigates the causes of this accessibility problem for the rural poor and proffers solutions for appropriate actions. It is expected that such area specific study on poverty will go a long way to proffer necessary solution that would guide the Government on development policy formulation; like empowering the poor through microcredit programme in order to reduce poverty (Akoum, 2008). Also, there is inadequate literature on the impact of microfinance programmes on poverty alleviation in sub-Saharan Africa in general and in the study area in particular; due to the dearth of reliable secondary data. This study is aimed at filling this important gap with realistic data collection and comprehensive data analysis methodology.

This study makes attempt to appraise the content and performance of Micro-Finance Bank as a catalyst for enhancing economic growth, income redistribution and poverty eradication particularly in South-West Nigeria; having adjudged that Micro-Finance Banks have a key role to play in poverty alleviation programmes. To this end, the study investigates the factors that determine the accessibility of a client to microfinance loan. Also the variables that support the poverty alleviation of microfinance loan beneficiaries

and non-beneficiaries in the study area are examined in order to evaluate the impact of the programme.

1.2.1 Summary

From the above enumerated problems, it can be deduced that:

The government of Nigeria has established several programmes and policies to alleviate poverty; but the continued escalation of poverty trends indicates that the programmes are not effective.

Several countries have used Microfinance programmes as one of the development strategic measures to combat poverty. Studies from most of the Asian and Latin American countries have confirmed the effectiveness of microfinance programmes but that of Nigeria is mixed. Therefore there is need for further studies that will use more than one method to get the true situation; as studies on the effects of microfinance programmes on rural households remain ambiguous due to lack of standard methodology that would assess the true impacts.

Impacts of the microfinance programmes on the welfare of Nigeria households living in the rural areas are not well documented. Since the statistics confirm that majority of poor people in Nigeria live in the rural areas, there is need therefore to study the effects of such programmes on mostly affected people.

Lack of credit has been regarded as the major obstacle to poverty reduction in Nigeria particularly in the rural areas. However, MFIs are unable to serve the rural poor due to poor and limited physical social infrastructural facilities. This makes the provision of

microcredit to rural poor more challenging as a result of risk management and cost of transactions. As a result of inaccessibility to microcredit by the rural poor, the latter have to resolve to borrowing from friends, relatives, money lenders and cooperative societies at exorbitant prices. This prevents them from making meaningful investments that would better their lot.

The purpose of this study therefore is to estimate the factors influencing the accessibility of the rural poor to microfinance loan and evaluate the impacts of the programme on the poverty level of the poor people residing in rural areas of South-West Nigeria.

1.3 Research Questions

Researchers in development economics have demonstrated that Microfinance contributes to poverty alleviation by serving as a necessary tool to increase the productivity of the poor and contributing positively to the economic development. This study aims at contributing more insight into this debate by evaluating the accessibility and effect of microfinance loan on poverty alleviation in South-West Nigeria. As a result of this, the following research questions are therefore important to the study:

1. What are the factors influencing the accessibility of the poor to secure Microfinance loan in the study area?
2. Have Microfinance loan contributed to the alleviation of poverty in the communities of their abode?

3. Does Microfinance loan contribute to the improvement in the attainment of health services, improvement in standard of living, increase in expenditure per head in a household and increase in income of the beneficiaries?

   By answering the above questions, it is expected that the following objectives would be achieved.

1.4 Objectives of the Study

In view of the foregoing, the general objective of the study is to assess the impact of Microfinance loan on Poverty alleviation in South-West Nigeria. In essence, the study aims at assessing the target population on what progress they have made in terms of improvement on their living standard and wellbeing as a result of their participation in microfinance programme. The specific objectives are:

1. To identify the factors influencing the accessibility of microfinance loan in their area of operation,
2. To determine the contribution of microfinance loan to poverty alleviation in the study area.
3. To analyse the impact of microfinance loan on attainment of health services, standard of living, expenditure per head in a household and increase in income of the beneficiaries.

1.5 Justifications of the Study

Several studies have been carried out on the effect of Government policies on poverty alleviation. But due to the problem of paucity of accurate and quality data and the problem of methodology, most of the researchers concentrate on the macro and urban

effects. This further widens the gap between the urban and rural inequality which is at the detriment of the rural communities. This study therefore makes extensive enquiry for the policy makers to understand why the percentage of the poor population is rising particularly in the rural areas. It also makes an in-depth probe into the rural people's perception and weaknesses. Thereafter, the study makes suggestions to the government on the necessary solutions to these problems.

Despite the fact that microfinance has been used for decades as an important development tool and as a formidable programme for poverty alleviation, development practitioners still know little about the possible efficiency of microfinance activities in reducing poverty (Khandker, 2005). However, this research project further considers the role of microcredit loan through Micro-Finance Banks in terms of creating the opportunities for the poor in their entrepreneurship capacity, employment generation and increased accessibility to credit facilities.

Moreover, the outcome of the research will serve as guide for the policy makers to evaluate their previous policies on poverty. This will serve as a lee-way for formulation of programmes for the future.

Despite the importance and increasing activities of MFIs in poverty alleviation in Nigeria, little efforts have been advanced to study the effect of microfinance programmes on the rural poor particularly in the study area of this project. This study has its main aim to provide empirical evidence on the impact of microfinance loan in reducing poverty of

the rural poor in Nigeria; using data collected through field survey by the author. This exercise will be the foremost study in this geographical area when an independent research will be conducted to study the impact of microfinance on the rural poor. The study is expected to spur the government policy directed to empower the poor with adequate credit facilities and necessary infrastructure for economic development. The study therefore concentrates on the rural and grassroots poverty where little research has been carried out on the accessibility and impact of microfinance loan, particularly in the study area.

Furthermore, most of the previous studies on poverty alleviation are usually based on Asia and Latin America at the neglect of African countries (Odhiambo, 2010). However this study will contribute to few existing literature on the subject matter as there have been relatively few studies that evaluate the effect of Microfinance operations on poverty in Nigeria. It is therefore save to mention here that relatively not much research have been carried out on the accessibility and impact of microfinance on the poverty alleviation, particularly in the study area. Such unfilled gap in the literature therefore creates ample opportunity for this research work. Based on this trend, the following justifications are therefore germane for this research project:

For the microfinance to reach the target poor there is need for proper study of the factors that can facilitate the easy accessibility of the credit to the poor. Most of the previous studies are concentrated on the effectiveness of microfinance in the urban areas with little or no emphasis on whether it is accessible to the rural poor or not. As a result, most of the

loans go to the rich people and the income inequality of both the urban and rural people widens.

The impact of microfinance should be assessed holistically. Bearing in mind that poverty is multidimensional, both income and non-income and social factors should be used to assess the effectiveness of microfinance in terms of living standard, consumption and health facilities.

This study will test the concept that the use of microfinance credit leads to reduction in poverty in terms of health standard, expenditure per head, standard of living and income of household head; using the Nigeria data. The concept has been extensively tested using mostly Asian and Latin American countries to assess the impact of microfinance on poverty reduction. The results of such studies are mixed as illustrated in the literature review (chapter three). Hence this study investigates the accessibility and impact of microfinance on poverty alleviation as contribution to the few literature available on the subject matter in Nigeria.

However experience from Latin America and Asian countries' studies on the effect of microfinance programme on poverty alleviation has affirmed that Impact Assessment studies based on the rural areas show more impact representative than the one focused on the urban areas. This is because microfinance is a rural phenomenon (Goldberg, 2005). It is based on this assertion that this study is focused on rural poverty.

There is no gain saying the fact that this study is timely and justifiable, particularly when it has been established that government has spent billions of naira to answer the global clarion call for poverty reduction and the results are not encouraging, to say the least. In essence, the study provides the ample opportunity to assess the impact of Microfinance on Poverty reduction.

Also, the potential beneficiaries of Microfinance loan will be able to appraise the intricacies of the benefits of microfinance credit. Furthermore, the study is expected to provide possible grounds for researchers to kick-start further research on the subject matter.

1.6 Scope of the Study

Poverty Eradication Programmes have attracted the attention of many scholars in the past. But little have been said on the accessibility and impact of the programme on the people at the grassroots particularly those living in the rural areas. It is of paramount importance to focus on the rural poor because the majority of the people live in the rural areas. The rural poor need access to land and capital in order to generate adequate income for their households. Government also needs to give more priority to rural development with the provision of basic infrastructure, health and education facilities particularly focused on the small communities (Kay, 2006). This study is therefore to focus on the efficiency and effectiveness of the programme on the down- trodden. The study is intended to cover South-West Nigeria which is one of the six geo-political zones in the country. Other zones of the country include South-East Zone, North-West Zone, North-

East Zone, North-Central Zone and South-South Zone (see figure 1.1). The choice of this area is based on the fact that South-West zone harbours more than 40 percent of the total of about 870 Microfinance Institutions in the country while the balance of 60 percent is shared among the remaining five zones. Also, most of the states in South-West zone are well populated by rural dwellers (see details in paragraph 4.4). The classification of the country into Zones is to enhance administrative convenience. It is used by the political parties and governments to balance the distribution of capital projects, appointments and nominations into various offices. This is one of the necessary conditions to satisfy the doctrine of Federal Character. South-West zone consists of six states (Ekiti, Lagos, Ogun, Ondo, Osun and Oyo) out of 36 states and Federal Capital Territory of the Federation.

The population sample are picked from three (Ogun, Osun and Oyo) out of the six states that comprise the South-West zone of Nigeria; with the majority from Ogun state which is one of the states dominated by the rural areas in the zone. The target groups are the rural poor that own micro business and applied for microfinance loan; and got approval for the loan or not in at least past three years. This does not cover the rural poor that did not apply for the microfinance loan. The survey was carried out from July to September, 2014 with the support of Research Assistants that were trained before the exercise. The questions in the questionnaire are limited to the demographic, social and economic factors of the respondents. These are expected to reveal the necessary data for the evaluation of factors that determine the accessibility of the poor to microfinance loan and impact assessment of microfinance on the rural poor.

Figure: 1.1
Nigeria Geo-Political Zones
Source: http://www.google.com.my/imgres?imgurl=http://collections.infocollections.org/

1.7 Organization of the Thesis

This study is presented in six chapters. Following the general introduction in chapter one is the discussion of poverty and microfinance in Nigeria presented in chapter two. Chapter three gives the theoretical background and the review of previous literature on the accessibility and impact of microfinance on poverty reduction. Chapter four enumerates the conceptual framework and methodology of the study. Analyses of data and results are presented in chapter five; while chapter six gives the summary of the findings and recommendations.

CHAPTER TWO

POVERTY AND MICROFINANCE IN NIGERIA

2.0 Introduction

This chapter gives an overview of poverty and microfinance operations in Nigeria. In the chapter, background information on Nigeria as an entity is provided together with its socio-economic indicators and governance characteristics. The poverty trends in Nigeria and government activities towards the reduction of poverty through various programmes are also discussed with the emergence of microfinance programmes into the economy as poverty alleviation strategy.

2.1 Background Information

Nigeria is a Federal Republic with 36 States and Federal Capital Territory. The States form the second tier of government and are further sub-divided into 774 local government areas (LGAs). Nigeria became independent country on October 1, 1960 and became a republic in 1963 (The Government of the Federal Republic of Nigeria, 2007). The country is a multi-religious society and has more than 250 ethnic groups that speak over 350 languages and dialects. Nigeria has been categorized as the most populous country in Africa and also in the black nation of the world; and is number eight most populous country in the world. It has a population of 140 million people, based on the 2006 National population Census and 163 million in 2010 based on National Population Commission's estimates (National Bureau of Statistics, 2012).

As depicted in Table 2.1, Nigeria's population increased from 15.9 million people in 1911 to about 164.7 million people in 2011.

Table 2.1
Population of Nigeria 1911-2011 (millions)

Year	**1911**	**1921**	**1931**	**1941**	**1952**	**1962**	**1963**	**1973**	**1991**	**2006**	**2010**	**2011**
Pop	15.9	18.7	20.0	-	30.3	45.2	55.7	79.8	88.9	140.0	163*	164.7*

Source: Compiled by Author from Nigeria Poverty Profile 2010 and Annual Abstract of Statistics 2012 (NBS, 2012).
Note: * National Population Commission's estimates

The Demographic Statistics Bulletin of 2013 projected the Nigerian population at 174 million people out of which women comprised 49.5 percent and men shared the rest 50.5 percent. The annual population growth is estimated at 3.0 percent (NBS, 2013).

Nigeria is situated on the Gulf of Guinea in West Africa with an area of about 923,770 square kilometers. This consists of 909,890 square kilometers of land area and 13,879 square kilometers of water area and is situated between 3^0 and 14^0 East Longitude and 4^0 and 14^0 North Latitude. All this lies entirely within the tropical zone. The country is bordered on the North by Niger Republic, on the East by the Federal Republic of Cameroon, on the South by almost 800 km of Atlantic Ocean and Benin Republic on the West. Nigeria has both rainy season and dry season; and the vegetation ranges from mangrove forest on the coast to desert in the North.

On governance, Nigeria was ruled for nearly 29 years by the Military dictatorship and few years of civilian interim governments; from her independence in 1960 to May, 1999 when the country returned to democratic rule under a presidential system with three tiers of government- Federal, State and Local. At the federal level are executive arm, Senate and House of Representatives (bicameral) legislative arm, and the judiciary. Also the

states have their executive arm with houses of assembly as the legislative arm. Each local government area has an executive chairman and councilors that form the legislative arm. The country is grouped into six geo-political zones for administrative convenience (see figure 1.1).

About 48 percent of the Nigerian population lives in the urban areas while 52 percent is in rural areas. Inflation rate stood at 12.0% in December, 2012 (NBS, 2013). Nigeria's economy has been described as one of the fasted growing out of the World economies and ranked second largest in Africa. The country is blessed with natural resources such as petroleum, tin, columbite, iron ore, coal, limestone, lead, zinc, natural gas, hydropower and arable land for agriculture. Nigeria can therefore be described as rich country with poor people; that is, "Poverty amidst plenty". This confirms the description of Nigeria as "paradox" by the World Bank in 1996 (Obadan, 2001).

Nigeria's economic freedom score is 55.1, making its economy the 120th freest in the 2013 Index. The country is ranked 21st out of 46 countries in the Sub-Saharan African region, and its overall score is adjudged to be below the world average. Nigeria is the leading oil producer in Africa. Its Oil and Gas account for about 90 percent of export earnings and 80 percent of government revenue. The country has an extensive informal sector and the majority of the population works in agriculture (UNDP, 2013). The World Bank President, Dr Jim Kim, on Wednesday April 3, 2014 in Washington, announced that Nigeria was among the world's extremely poor countries (NAN, 2014).

According to Bertelsmann Stiftung's Transformation Index (BTI) 2014 which evaluated 129 transformations and developing countries' state of democracy, market economy and political management; Nigeria's Human Development Indicator (HDI) is 0.471. By implication, Nigeria ranks 153 out of 187 countries. The country's environmental problem ranges from air, water and industrial pollution. This has resulted in Nigeria's ranking position at 119th out of 139 countries in the 2012 Environmental Performance Index. The report estimates Nigeria's population at 168.8 million with the average annual growth rate of 2.8. The life expectancy is 51.7 years and the urban population is 50.2 percent. The Gini Index confirms the level of inequality in the country at 48.8 while the poverty index which indicates the percentage of population living on less than $2 a day concludes that it is 84.5 percent in Nigeria, in the year 2013. The Key Indicators shown in Table 2.2 compares some of the previous years:

Table 2.2
Economic Key Indicators for Nigeria

	2007	2009	2011	2013
Population (mill.)	131.5	148.0	158.4	168.8
Population growth[1] (% p.a)	2.2	2.2	2.5	2.8
Life expectancy (in years)	44	47	51	51.7
Urban Population (%)	48.2	47.6	49.8	50.2
HDI[3]	0.45	0.51	0.459	0.471
HDI rank	159/177	158/182	156/187	153/187
UN[4] Education Index	0.63	0.66	0.442	0.457
GDP per Capita (US$)	1,003	1,979	2,381	2,661.1
Gini Index	43.74	42.9	42.9	48.8
Poverty[2] (%)	92.48	83.9	83.9	84.5
Aid per capita (US$)	48.9	13.8	10.7	5.5

Sources: Compiled from The World Bank, World Development Indicators UNDP, Human Development Reports for 2007, 2009, 2011 and 2013 as cited in BTI respectively.
Footnotes: [1] Average annual growth rate. [2] Percentage of population living on less than $2 a day.
[3] Human Development Index (HDI). [4] United Nations (UN).

2.2 Poverty Trends in Nigeria

The real pointer to the extent and level of poverty in Nigeria was charted by the Federal Office of Statistics (now National Bureau of Statistics) through the Consumer Expenditure Surveys in 1960, 1985, 1992 and 1996. The findings of these surveys revealed that there was widespread of poverty mostly in the rural areas and women were most affected (National Bureau of Statistics, 2006). In response to the anomaly indicated by the surveys. The Federal Government established three programmes targeted at poverty reduction viz – National Poverty Eradication Programme (NAPEP), National

Economic Empowerment and Development Strategy (NEEDS) and Nigeria Millennium Development Goals (MDGs). In order to monitor and assess the impact of these programmes on the poor, the Nigeria Living Standard Survey (NLSS) was first conducted in 2003/2004. The report of this survey indicated that there was a sharp increase in the national incidence of relative poverty from 1980 to 1985 and between 1992 and 1996. From 1996 to 2004, the national incidence of relative poverty decreased by 11.2 percent. That is, from 65.6 percent to 54.4 percent. This decline mostly favoured the urban areas; and the effect on the rural areas was negligible. For instance, in the urban areas between 1996 and 2004, the relative poverty dropped by 15 percent (from 58.2% to 43.2 percent) whereas the decline is 6.5 percent (from 69.3 percent to 63.3 percent) in the rural areas at the same period.

The statistical analysis in the report shows that the subjective poverty measure which shows the self-assessment of the respondents revealed that within the period under review (1980-2004) the national incidence of poverty was 75.5 percent, which was further decomposed to 70.7 percent urban areas and 79.2 percent rural areas.

The report further measures the level of inequality, which is a dimension of poverty, through Gini-Coefficient. The result indicates that the National Gini co-efficient for the period under review was 0.4882, with urban areas having 0.5541 while the rural areas have 0.5187. All this signify that there was high level of poverty and income inequality.

Further analysis of poverty in the report revealed that most of the poor Nigerians reside in rural areas (National Bureau of Statistics, 2006). Table 2.3 shows the breakdown of

rural/urban poverty and confirms that the poverty in rural areas is substantially higher than urban areas. For instance, in urban areas, poverty incidence increased from 16.2 percent in 1980 to 43.1 percent in 2004; whereas it increased from 28.3 percent to 63.8 percent in rural areas within the period of observation.

Table 2.3
Poverty Indicators by Sector (Urban and Rural)

Year	Urban	Rural
1980	16.2	28.3
1985	37.8	51.4
1992	37.5	46.0
1996	58.2	69.3
2004	43.1	63.8

Sources: NCS- 1980, 1985, 1992, 1996; NLSS, 2004 (NBS 2007)

The depth and severity of poverty in the rural areas is more than that of urban areas in Nigeria. This is due to the fact that dwellers in the rural areas lack access to credit and economic opportunities, infrastructural facilities and mostly depend on low productive self-reliance farming. The group credit system is not popular in the rural areas.

The 2007 Nigeria Poverty Assessment report by the National Bureau of Statistics (NBS) in collaboration with The World Bank revealed that Nigeria can still be classified as one of the poorest countries in the World despite the fact that the country is the largest exporter of crude petroleum oil in Africa. With income per capita of less than US$500, Nigeria still witnesses the death of one out of five children before they attain five years of age and one is malnourished out of every three children (National Bureau of Statistics, 2007).

Despite the government intervention programmes to alleviate poverty in Nigeria, the level of poverty incidence is still outrageous. Although the intervention programmes were well intended but they suffered tremendous setback during implementation which resulted into negative impact on the poverty level in the country. This has been adduced to the fact that the programmes were not well focused on the intended beneficiaries and they involved too many activities that could not be sustained (National Bureau of Statistics, 2007).

The assessment report further revealed that although households with assets like house and land are less likely to be poor, but despite the fact that most of the household heads in the rural areas own their houses, there is still high number of poor among them. Moreover, the findings further affirm that the poor households particularly in the rural areas manage risks and shocks by reducing their food intake, borrow from friends, sell inherited assets, and pull their children out of school because they cannot afford school expenses (National Bureau of Statistics, 2007). The consequences of this appalling situation are enormous and have multiple manifestations. For instance, about 50 percent of the number of primary school age attends school in the rural areas while only three out of every five Nigerian adults are literate.

On health status, that serves as another dimension of poverty, the country still harbour high child, infant and maternal mortality including malnutrition. The poor cannot afford the cost of health services and the facilities are scanty particularly in the rural areas. With less food intake, the health would be impaired and there would be low productivity. The

poor are getting poorer due to low economic activities, low production and productivity, low income, low savings, low investment and low standard of living. The vicious circle continues.

The above discussions testify to the fact that despite the aforementioned government efforts, the scourge of poverty is still rampant in Nigeria. Poverty in Nigeria is a rural phenomenon as shown in Table 2.3 and the subsequent discussions. Suffice to state here that if rural poverty is conquered, the rural areas, which has high concentration of population and poverty rate will record less poverty in particular and the Nigeria poverty incidence would be alleviated. It is therefore necessary to emphatically state here that the type of the current study that focuses on rural poverty in Nigeria is important and timely for the policy makers. This is to aid the concerned stakeholders to take appropriate measures that would combat poverty in the country.

2.3. Microfinance Operation in Nigeria

The provision of Microfinance services in Nigeria dates back to centuries of years. In its traditional form, microfinance functions in Nigeria with the provision of micro-credit to rural and urban low-income earners. They operate in form of self-help groups that rotate the savings and credits among the group members. There are other informal providers of microfinance services like cooperative societies; and savings collectors usually called "Baba Alajo". However, the major impediment of these informal microfinance institutions is the fact that they serve few people as a result of insufficient funds available to finance their customers' projects and extend the financial services to rural areas. In

order to improve this situation, Nigeria governments in the past established series of financed micro/rural credit programmes that would assist the poor to fund his micro-business.

Such programmes include the Rural Banking Programme, sectoral allocation of credits, a concessionary interest rate, and the Agricultural Credit Guarantee Scheme (ACGS). Others are the Nigerian Agriculture and Co-operative Bank Limited (NACB), the National Directorate of Employment (NDE), the Nigerian Agricultural Insurance Corporation (NAIC), the Peoples Bank of Nigeria (PBN), the Community Banks (CBs), the Family Economic Advancement Programme (FEAP) and in year 2000 the government established the National Poverty Eradication Programme (NAPEP) with the mandate of providing financial services to alleviate poverty.

Microfinance Institutions (MFIs) in Nigeria are classified as private companies registered to embark on the business of offering microfinance services like savings, loans, insurance, money transfer services and other financial services that are needed by the economically poor, micro- small and medium enterprises (CBN, 2005). In essence, the MFIs do not attract financial aid or other assistance from the government. The latter is only responsible for regulatory and supervision functions through its agencies.

According to the Central Bank of Nigeria (CBN, 2005), Microfinance Banks are established to serve the following objectives:

i. To create employment opportunities and increase the productivity of the active poor in the country, thereby increasing their individual household income and uplifting their standard of living.

ii. To enhance organized, systematic and focused participation of the poor in the socio-economic development and resource allocation process.

iii. To mobilize savings in order to provide diversified, affordable and dependable financial sources to the poor, in a timely and competitive manner, that would enable them to undertake and develop long term sustainable entrepreneurial activities.

iv. To render payment services such as salaries, gratuities and pension for various tiers of government.

v. To give access to sustainable financial services that will increase the income and assets of the poor.

vi. To assist the small businesses against the vulnerability of external shocks.

vii. To help the households with adequate financial services that can raise enough funds for increase and sustainable income.

In Nigeria, it is on record that as at 2005, the formal financial system renders services to about 35% of the economically active population whereas the remaining 65% is left to the hands of informal financial sector like Non-Governmental Organisations (NGOs), money lenders, friends, relatives and Cooperative and Thrift societies. It is therefore important for developing country like Nigeria to enact a formidable finance policy that would integrate the activities of the existing informal financial institutions. And bring

them within the umbrella of the apex regulator -Central Bank of Nigeria. This would ensure monetary stability that will be capable to engender sound economic growth and development through the adequate finance of micro, small and medium scale enterprises.

The practice of these microfinance services, in particular, those sponsored by government has been the adoption of the traditional supply-led, subsidized credit approach mainly directed to the agricultural sector and other businesses such as, tailoring, transportation, trading, blacksmithing, weaving and agro-processing. These programmes had contributed immensely to the economic growth but they lacked continuity and sustainability.

Some Non-Governmental Organisations (NGOs) also participate in microfinance activities. This was prompted by the lack of adequate funds from the formal financial sector to provide the services needed by the low income earners and the poor; and also with the declining support from development partners among others. Prominent among these NGOs are: Lift Above Poverty Organization (LAPO), Youth Empowerment Scheme (YES) in Minna, Country Women's Association of Nigeria (COWAN), The African Diaspora Foundation, Farmers' Development Association, Grassroots Women Foundation, People to People International and Women's Consortium of Nigeria. The NGOs are only membership based institutions that engage in charity, capital lending and credit. They shifted from supply-led technique to a demand driven strategy. Moreover, they could not reach out as expected because of the non-sustainability of the sources of their fund.

From the private sector, about eight hundred and seventy Microfinance Institutions (MFIs) are owned by the private organizations all over the country. While appraising these institutions' activities in its December 2005 report, the Central Bank of Nigeria (apex regulator of Banks) affirms that:

i. The banks have weak institutional capacity. They are bedeviled by inadequate competent management, poor corporate governance and their operations are not well defined.

ii. They have inadequate Capital Base. It is reported that only "75 out of over 600 community banks " whose financial statements of accounts were approved by the Central Bank of Nigeria in 2005 had up to N20million shareholders' funds unimpaired by losses.

iii. There has been a huge supply gap of unsatisfied demand in the market. As most of the poor people do not have access to financial services, particularly, the rural dwellers.

In summary, most of the microfinance banks have weak institutional capacity, inadequate capital base, they are not accessible to the poor and there has been a huge supply gap of unsatisfied demand in the market (CBN, 2005).

In its report at the 3rd Annual General Meeting held in June, 2013, the National Association of Microfinance Banks (NAMB) in Nigeria claimed that its members had invested more than N222 billion into Nigeria’s economy and provided jobs for 22,000 people from its activities nationwide with the total client of six million. The report further

solicits assistance for more funds so that microfinance would be more accessible and effective with expected responsibilities in the Nigerian economy (NAN, 2013).

The Nigeria Deposit Insurance Corporation (NDIC), the government agency saddled with the responsibility of insuring deposit liabilities of licensed banks and other deposit taking institutions, also claimed that there exists a lot of untapped potential for financial services at the micro level of the Nigeria economy particularly in the rural areas where 76.8 percent of the residents are unbanked (Onukwugha, 2013) .

The prominent role of Microfinance Institutions is to provide financial services, especially microcredit to the poor and low income earners who were deprived such services by the conventional banks and other financial institutions.

Empirical study has confirmed that, very few percentage of the population has access to financial services in Nigeria. According to EFInA study in 2010, there was a marginal increase from 35 percent in 2005 to 36 percent in 2010 of those who were served by the formal financial institutions in Nigeria (CBN, 2012). When added to those who sourced their financial services from informal sector like Ajo, clubs/pools, Esusu and money lenders, the total percentage of those who have access to finance in 2010 was 53.7 percent. By implication, this means that almost 39.2 million or 46.3 percent of adult eligible population were excluded financially in 2010; despite the fact that the Central Bank of Nigeria (CBN) launched microfinance policy five years earlier in 2005.

It is based on the above worrisome scenario expressed by the stakeholders and the urgent need to improve the financial services delivery particularly to the poor that prompted the CBN in April, 2011 to revise the 2005 Microfinance Policy, Regulatory and Supervisory Framework for Nigeria. With this revision, microfinance banks can now be more regulated and efficiently supervised by the Regulatory Guidelines specially created for them. In another development, the CBN in collaboration with stakeholders made a bold step to reduce the exclusion rate by launching the National Financial Inclusion Strategy in October 23, 2012. The programme is expected to reduce the exclusion rate, particularly of the adult Nigerians, to 20 percent by the year 2020 (CBN, 2012).

As expressed in the Daily Independent of April 29, 2015 under the caption "Microfinance banks: Helping or killing SMEs?" Nkasiobi Oluikpe lamented that microfinance loan has not made significant impact on the reduction of poverty neither has it been able to achieve the aim of sustainable economic development in Nigeria.

2.4 Microfinance in South-West Nigeria

The South-West zone, with six out of the 36 states of the Federation, has the highest concentration of Microfinance Institutions in Nigeria. It harbours 346 (about 40%) of total 870 Microfinance Institutions in six geopolitical zones in Nigeria. In the Southwest, the poverty incidence stood at 49.8 percent in 2010 with Ogun State having the highest incidence (69 percent) in the zone (NBS, 2012; Obisesan & Akinlade, 2013).Within the zone, Lagos State has the highest number of Microfinance Institutions, followed by Ogun State. Since Lagos State has most of its area in Urban cities while Ogun state, with the population of 3,751,140 people has more rural areas; the latter can therefore serve as a

better choice for taking large sample in the zone due to the fact that the study is focusing on rural poverty. The Microfinance Institutions contacted in the three selected states (Ogun, Osun and Oyo) include: Solid Rock Microfinance Bank, FUNAAB Microfinance Bank, Six-Covenant Microfinance Bank, Astra-Polaris Microfinance Bank, Egba-Yewa Microfinance Bank, Leggic Microfinance Bank and Iwade Microfinance Bank. Others are Sagamu Microfinance Bank, JKL Microfinance Bank, Excel Microfinance Bank, Omak Microfinance Bank, LAPO Microfinance Bank, Albarka Microfinance Bank and Egba-Owode Microfinance Bank.

2.5 Summary

Nigeria is highly populated with abundant resources but still inflicted with poverty, particularly in the rural areas. Several programmes and policies were introduced by government to curb poverty but this does not have significant impact on the poor as the population below the poverty line kept on increasing. Poverty in Nigeria is more manifested in the rural communities than the urban areas; efforts to reduce poverty in the rural areas would therefore substantially reduce its trend in the country. The operations of MFIs in Nigeria have created a landmark in the efforts towards the poverty reduction but much more efforts are still needed to make the programmes of the institutions effective on the rural poor.

CHAPTER THREE

THEORETICAL BACKGROUND AND LITERATURE REVIEW

3.0 Introduction

This chapter reviews the relevant theories of poverty, the researchers' contributions to the literature on the Microfinance accessibility to the poor and the effect of the programmes of MFIs on poverty alleviation together with the methods of impact assessment. In addition, the empirical literature on the impacts of microfinance on poverty alleviation are reviewed. Furthermore, the relationship between poverty and microfinance are enumerated and it was established that the latter serves as an agent of development and poverty alleviation.

3.1 Theoretical Background

Development theories have giving adequate cognizance to the importance of finance in enhancing the economic development and poverty alleviation. For instance, in 1911, Schumpeter affirmed that the provision of financial intermediation via the banking system has made a tremendous contribution towards the economic development through the allocation of savings that would enhance productivity, technical change and economic growth rate (Arun, Imai & Sinha, 2006). This implies that one of the basic tools of economic development is financial instrument that is judiciously utilized for productive investments. Hence, microcredit can contribute immensely to economic growth if channeled through the right steps.

In the book "Understanding Development: Theory and Practice in the Third World", Rapley (2007) revealed that the theory of economic development can be traced to Adam Smith's "Wealth of Nations" whose doctrines were followed by the classical and neoclassical economists like Thomas Malthus, David Ricardo and J.B. Say in the late nineteen century. Their ideology on development favours the free market economy, individual freedom with little government interference to achieve economic success. The ideology recognizes the individual's ingenuity, division of labour and specialization as the fundamental ingredients required to make optimal use of available resources. This is based on the view that by allowing individuals to pursue their narrow interests, the society would benefit at large and the economy would grow. The notion therefore abhors the state's major intervention in poverty alleviation as this can kill the individual initiative and restrict investment because there would be too much reliance on increased taxes. The government is therefore restricted to perform only three major functions – provision of public goods, defense of national sovereignty and protection of the rights of the citizens. This ideology brought about the idea of "laissez- faire capitalism" which emphasised that the free-market is self-regulating.

Rapley (2007) further affirms that Keynes supported the free market economy but he advocated for more government participation particularly during recession. For instance, he advocated for government fiscal policy (government spending) during depression and retrieval of money back into the treasury when the economy is buoyant. This can be ascribed to the present Open Market Operations (OMO). Keynes further argued that this measure would not cause inflation as claimed by the neo-classical economists because

there would be increase in production to cushion the effect of rising prices. This led to the era of "managed capitalism". Keynes's advice was best implemented in the 1940s by the governments of Western Europe and North America. This brought about the growth rates in the 1950s which was justified by the Keynes's assertion that the missing ingredient in the former capitalism (that is, appropriate government intervention) which has now been filled is responsible for the growth.

Following this trend is the issue of third World countries. These countries are characterized by low per capita income, shorter life expectances, low level of educational attainment and high infant mortality. Most of these countries are engaged in agriculture than manufacturing and rely mainly on primary exports (farm products or mining). Other non-economic factors include high population growth rates and colonization by the imperial powers. The latter contributed immensely to the underdevelopment and poverty of the third world countries by using the countries as sources of raw materials and ready – made market for their finished goods. The outcome of their transactions always results into imbalance trade that is unfavourable to the third world countries. This has constituted the major cause of poverty in the developing nations as claimed by the nationalists (see Rapley, 2007).

Efforts to correct this anomaly which stands as a stumbling block for the development of third world countries led to the propounding of Structural Theory in the post Keynesian era in 1950s. Structuralism requests the government to invest in industry and infrastructural facilities to reduce poverty and enhance development. This idea was

further energized by W.A.Lewis who published a paper on labour and development in 1954 (Rapley, 2007). The paper encouraged the diversion of cheap labour hitherto engaged in the production of primary products to the industrialization projects. This led to the establishment of Modernization Theory which specified that the third world countries are poor because of lack of capital; their development therefore lies in the increase of savings rate.

The argument of inadequate capital was followed by the idea of Dependency Theory (Rapley, 2007). This theory was first noticed in "The Political Economy of Growth", written by Paul Baran in the 1950s. The theory argues that the developed world, in connivance with the indigene elites (the dependent bourgeoisies) perpetrate poverty in the developing countries. Dependency theory attracted the attention of some writers and the bottom line is that as far as the third world countries are still linked to the advanced countries, the former would maintain their dependence and abject poverty. What the poor countries need therefore is to launch pragmatic national development strategies that would eradicate poverty without the involvement of the "bourgeoisies" (Rapley, 2007).

The above historical review has established the reasons why poverty is predominant in the developing countries. This situation has prompted the need to propound more theories in order to alleviate poverty. Some of which are discussed as follows.

3.1.1 Review of Poverty Theories

Poverty means lack of basic necessities. It widens the gap between individuals and creates economic and social inequality. When people are deprived of some basic needs, they are categorized as being poor. The concept of poverty line is based on what an individual would need to make a moderate (not lavish) living. In the literature, poverty has been described as a complex and multidimensional problem. Based on this fact, the nature of poverty cannot be identified by only one theory. It therefore requires multiple theories and multifaceted solution to combat the menace.

Permanent Income and Life Cycle Hypothesis

This theory was propounded by Modigliani and Friedman in 1957. The basic idea behind the theory is that people base their consumption on their normal income. This goes a long way to maintain their standard of living. Although the income may fluctuate but will not affect the constant (average) consumption as the latter depends on the expected income for the period.This theory considers income in its entirety by classifying the earned, unearned and future earned income. It adheres to the doctrine that people have permanent income, but the income may be short lived and derails from the permanent stream. This theory has been used by some scholars to measure poverty and short term income. For instance in 1978, Lillard and Willis used the theory to propose what they regarded as the "components of variance method" which serves as a link between the life cycle framework of the hypotheses and the poverty data (McKernan & Ratcliffe, 2002).

This method considers among others the incidence of low income dynamics and persistence of poverty among families. The major constraint identified with the theory is that it does not allow the income stream of an individual to change, even, if they are handicapped. This makes the theory to be difficult for the measurement of poverty as it fails to consider the impact of disability and family size on poverty incidence; which is the major determinant of analyzing the effect of events.

Human Capital Theory

Human Capital Theory illustrates the dynamics of earnings which is one of the most popular determinants of poverty. The theory states that the individual's decision to invest in human capital, which connotes education and training, depends on his lifetime earnings. An individual will invest in education and training according to the future expectation of the return on this investment. Both the direct cost and indirect cost (opportunity cost) of the investment can only be determined by the disposition of the investor to the labour market. Those who do not want to stay long in the labour market will invest less in human capital and receive less pay. These categories of people are likely to be trapped in poverty. The Human Capital theory categorizes the younger ones to be poor because they invest heavily on education and training and forgo the present wages. As they grow older, they reap the benefits of the skill acquired and become richer until when they reach old age. At this stage, they invest less in human capital because of the fact that they will not stay long in labour market. Hence, elderly people nearing retirement age receive less pay and remain poor as they retire. This theory has been criticized as incomplete because it only narrates issues in earnings and labour market. As

earlier stated, earning is only one out of many factors that determine the level of poverty. There are other non-income earnings and demographic factors that determine poverty. Therefore Human Capital Theory cannot be adjudged as the complete theory of poverty.

Bradshaw's Theory of Poverty

Bradshaw (2006) identifies concepts of poverty in five different perspectives. These are regarded as the causes of poverty which should be considered before adequate policies are made to address the poverty reduction issues. These perspectives are classified as follows:

(i). Poverty Caused by Individual Deficiencies:

This theory ascribes the causes of poverty to individual victim. It is believed that the individual is poor because he/she is not hardworking and not intelligent. Religious sentiment is also included here; that God's favour makes one to be rich and God's punishment occurs as a result of sins which made some people to be impoverished. Classical economists also support the individual blame on poverty. They posit that the poor cannot make better choices in investment and education; hence, they receive low incomes that make them to be poor. Poverty can therefore be reversed by hard work and struggle to survive the storm. Adequate penalty on one's laxity can also help to reduce poverty as individuals are forced to work either as salary earner or on self-employment.

(ii). Poverty Caused by Cultural Belief Systems that Support Sub- Cultures of Poverty.

The second theory emphasizes the influence of culture, norms and values as the major causes of poverty. Once a child is born and raised in the poverty stricken environment, his attitude and beliefs in the society is always tailored towards poverty. With poor parents, he hardly get sponsor for his education, his ability to get good job becomes a mirage and will continue in that vicious cycle. To get such people out of poverty therefore will involve the changing of their culture and orientation; relocate them to change the norms of poverty in their thinking. Also it will be advisable to engage such people in more rewarding works and training that can get them out of poverty. In addition, youth from poor homes may be segregated and engaged in new orientation and thinking. Furthermore, the poor in this category can be engaged in cooperative societies and entrepreneurship challenges that will make them use their initiatives for more productive investments.

(iii). Poverty Caused by Economic, Political, and Social Distortions or Discrimination.

In this theory, it is argued that individualistic problem is not the major cause of poverty but economic, political and social distortions. That the surplus labour at the low cadre has made the wage rate at such level to be low and make poverty inevitable. It is also affirmed that in view of the poor funding for education and training for the masses; they are unable to obtain quality education that can guarantee high pay and make them cross the Rubicon of poverty except few that manage to attain high pedigree. The same thing

goes for the political power. Poor people don't have enough resources to attain high political office. Hence, they lack the power to influence policy that would eradicate poverty and make them reap the economic benefits. Also, poverty is a consequence of social discrimination and stigmatization in form of race, gender, ethnic or religion. This makes it impossible for the victims to have opportunities and expected equity that will assist them to have access to what will make life more meaningful. To solve this problem, there is need for adequate change. Efforts should be geared towards the pro-poor programmes that will provide adequate jobs with living wage, establishment of self-employment opportunity and provision of social amenities like health, schools and housing projects.

(iv). Poverty Caused by Geographical Disparities

In this theory of poverty, emphasis is placed on the location of individuals as the determinant of poverty. Hence, poverty is not of equal magnitude in rural, urban, cluster or sparsely populated areas; developed or developing countries. In essence, the location of residence determines the level of poverty. For instance, lack of adequate infrastructure will discourage location of industries and related enterprises in the rural areas and there would be no job opportunity in such an area. This presupposes rural-urban migration that makes rural areas more poverty ridden than urban areas. As a remedy to this problem, efforts should be geared towards the development of rural areas and related locations. Since the urban migration of the residents in the rural places will amount to compounding the problem of urban poverty, developmental projects of infrastructural

facilities like roads, bridges, hospitals, schools and other community development projects can be used to eradicate geographical poverty.

(v). Poverty Caused by Cumulative and Cyclical Interdependencies

This is a cyclical nature of poverty which can start from individual, firm or community. For instance, lack of job can compel the individuals to move to the urban area from the rural area. This will lead to lack of tax revenue for the government in the rural area. As a result of this, government would not be able to maintain the roads and other infrastructural facilities like schools and hospitals in the rural area. When the area is not developed, firms cannot be established in such community and there would be no quality education and training. People will not have access to good health care. This may aggravate unemployment, high mortality and lack of self-esteem in the area. This cycle will continue and the poor will become poorer.

The cyclical poverty problem is involving economic, social and political factors therefore the cycle is hard to break. But once the cycle is broken, the development of the affected area will evolve.

However, the above five enumerated theories reveal that poverty is a complex problem that requires comprehensive and multifaceted solution. This agrees with Miller *et al* (2004) (as cited in Bradshaw, 2007). Miller identified six interdependent "elements of self - sufficiency" that can be used to combat the menace of poverty as follows:

1. Income and economic assets.

2. Education and skills.

3. Housing and surroundings (safe, attractive).

4. Access to healthcare and other needed social services.

5. Close personal ties, as well as networks to others.

6. Personal resourcefulness and leadership abilities.

The above comprehensive treatment is a herculean task that is not easy to achieve, because it requires the joint efforts of individuals, firms and government through the economic, social and political programmes. It is therefore expedient on the designers of anti-poverty policies to commence from the perspective of the theories that can support the causes of such poverty before the solution is proffered.

Although the literature has accommodated many studies on poverty analysis but only few theories have been in existence to explain them. McKernan and Ratcliffe (2002) posit that it will take the combination of many theories to explain why people are poor. To this end, if it is not possible to use a complete theory on poverty, it is desirable therefore to dig into more theories to further explain some aspects of poverty in addition to the above illustrations.

Capability Approach Theory

The roots of Capability Approach can be traced to Adam Smith's (1776) discussion on 'necessities' and living conditions; and Karl Max's (1844) analysis of human freedom and emancipation (Clark, 2005). Professor Amartya Sen, the Indian philosopher-economist and 1998 Economics Nobel Prize winner developed the theory of poverty

called Capability Approach (CA) in 1980s. In this model, Sen likens the issue of poverty to the deprivation of the poor of the basic necessities of life. The poor is deprived of basic "capabilities" as a result of poor income.

Sen's work is well connected with Aristotle's theory of 'political distribution' and 'human flourishing'. Furthermore, works of Rawls' Theory of Justice (1971) and the Basic Needs Approach by Paul Streeten *et al*. are linked to Capability theory (see Clark, 2005).

The essential feature of basic needs approach is to make provision of economic, social and political needs for the full development of individual. This encompasses both material and non-material needs (Hicks & Streeten, 1979). Therefore basic needs include education, health, nutrition, housing, water supply and sanitation. But only Capability Approach (CA) treats all these essential needs in details.

The capability Approach determines poverty in more depth than the poverty line approach which is based on the minimum income that can sustain people. Although Income and Capability Approach are related in the theory of poverty; deprivation in the latter involves other factors than income. It includes food, gender, health, education and other dimensions. Capability Approach therefore expands the deprivation of the poor from the income or poverty line concepts which is the means to an end, to end itself that comprises what can make the life more meaningful. The income makes a person to improve his capability in the consumption of goods and services that will make him

healthy and capable to live without suffering. On the other hand, healthy and knowledgeable person has the potentials of earning high income (Sarshar, 2010).

In the Capability Approach (CA), Sen reiterates the capability to the quality of good life. He propounds that people are poor because they are deprived of valuable things that can make them a good wellbeing, enhance happiness and make them not to be ashamed in the public. He believes that development construes capability expansion. The means of a good life includes education, health and other means that can make life more meaningful and support people's effective freedom.

One of the major concerns of CA is the quality of life that people are actually able to achieve not the level of resources. The quality of life which include the well-being in food, shelter, clothing, literacy, good health and political freedom to mention few. Capability therefore connotes the effective access to these qualities which one has reason to value. In essence, the theory posits that evaluation of social arrangements should be in terms of freedom that people possess for the achievement of the valued functionings (Alkire, 2005).

The Capability Approach Theory has been extensively used in the empirical studies. For instance, since 1990 the Capability Approach model has been exposed to tremendous empirical works that are too numerous to mention. The theory has been found to possess the ability of directing the attention of the public towards the neglected dimensions of human well-being by comparing the merits and demerits of intervention programmes. It

also gives the opportunity of using much more data of "functionings" and "capabilities" for more critical evaluations rather than economic indicators like Gross Domestic Product Per Capita and Growth rate (Wells, 2013).

In the past two decades, CA has been in the fore front as a leading alternative when it comes to choosing the standard economic framework for analyzing poverty, inequality and human development, social justice, living standards and rights and duties (Clark, 2005). Sen's Capability Approach has also been commended for expanding the frontier of knowledge in the evaluation of qualities of life, targeting people as end in themselves rather than means to economic procedures, confirming the heterogeneity inherent in humans as individuals, groups, cultures, norms and values. In addition, the theory has proved its practical application as the base of scientific research for human needs, poverty, wellbeing, gender disability, inequality, human security and human rights. It has also served as the main source of discussion in several books and conferences (Clark, 2005). Apart from being an appropriate framework designed to measure the individual's wellbeing and social arrangements, CA is also used to assess the social cost-benefit analysis and evaluate the impact of policies on the peoples capabilities (Robeyns, 2005).

The Capability Approach Theory has been extensively used by the international organisations. For instance, since 1990, the United Nations Human Development Programme (UNDP) issued its Annual reports based on Human Development Index (HDI) developed through CA to compete with the popular Gross Domestic Product per capita figures. Furthermore, in recent times the Multidimensional Poverty Index (MPI)

was developed by researchers at the Oxford Poverty and Human Development Initiative (OPHI) through the theory and is included in the UNDP's Human Development Reports from 2010 onwards. From these measures, it has been revealed that the MPI has demonstrated the quality of the theory by providing different pictures of international and regional poverty than Income poverty. The MPI has further depicted the differences in the magnitude and depth of poverty level from country to country and has finally assisted the policy makers to enact the policies that will eradicate the specific country's poverty problem. In fact, Sen's work has been adapted in various researches and studies across different disciplines; and development practitioners have used it for diverse missions. Prominent among them are the assessment of quality of life, well-being and human development by Robeyns (2005) and Alkire (2005); Anderson (1999), Alexander (2008) and Nussbaum (2000) used CA to develop a capability based 'Theory of Justice'. In essence, CA is a development construct that has really assisted to portray the human development approach in form of a development paradigm that explains different types of policy choice like poverty (Fukuda-Parr, 2003).

In view of the above enumerated benefits and practical applications that this study is based on, the underpinning theory for this research work is Capability Approach Theory while the Household Economic Portfolio Model (HEPM) is used for the empirical work. The question to pose here is how does Capability Approach Theory measure the impact of microfinance? Going by the capability approach, financial exclusion means the poor are being denied access to credit because of the financial risks and high cost of administration, any measure that assists them to surmount this problem then enhance

their capabilities. Therefore the theory can be a valuable framework to assess the effectiveness of microfinance. Furthermore, the capability perspective advocates that actual development must involve the overall welfare of the individual. This means that microfinance should not only improve the access to formal credit by the poor to establish a new business or expand an existing one, but it should also contribute to improvement on other dimensions of poverty like health, education, standard of living, expenditure (consumption) and income of the beneficiaries. This study therefore employs multidimensional conceptual framework to examine these variables in the Nigeria context. In addition, the current study assesses the extent by which microfinance has improved the multidimensional poverty indicators (both economic and non-economic measures) of the beneficiaries. This agrees with Hulme (2000) which opines that impact studies should apply pluralistic approaches and should not be restricted to single method whose weaknesses may be difficult for the researcher to eliminate.

3.2 Definition and Composition of Poverty

Having discussed some relevant theories on poverty, it is very expedient to further search literature in order to widen the scope of the study and discover more relevant variables that can enrich the empirical analyses. In the following section, more contributions on the meaning and determinants of poverty are explored.

3.2.1 Operational Definition of Terms

In this study, the following operational definitions are adopted:

Poverty**:** The state of one who lacks a usual socially acceptable amount of money or material possessions. It is the deprivation of the basic necessities that make life more meaningful to human being.

Poverty Alleviation/Reduction**:** These words are used interchangeably to connote making less severe of poverty. In this study, it involves the reduction of the number of poor people. That is, to increase the number of people that crosses the poverty line.

Poverty Eradication**:** Activities geared towards the removal of poverty.

Micro-Finance**:** The provision of credit, savings and other financial services like micro-insurance to micro-entrepreneur and low income borrowers.

Micro-Finance beneficiary: A client of Microfinance Institution who benefits from micro-finance loan.

Micro-finance non-beneficiary: A person who is eligible to collect micro-finance loan but did not get approval.

Impact of Micro-finance on poverty alleviation**:** In this study, the impact is in terms of the effect of microfinance loan on the standard of living and economic wellbeing of the people.

Health standard: Affordability of the means to acquire the requirements of good health or being well.

Standard of Living: Attainment of the basic necessities of life and comfort in a society.

Income inequality: Disparity or widening the gap between individuals.

Per capita expenditure: Individual/ household average consumption expenditure.

Inequality**:** This means wide differences in income, in employment opportunities; inequality between urban and rural population and inequality in assets ownership. It is the gap between the rich and the poor.

3.2.2 Meaning of Poverty

Poverty is for many categories of poor not simply an economic phenomenon. It is a social, cultural and psychological phenomenon. Poverty alleviation can be seen not only as increasing the income and assets of households or individuals, but also as enabling or empowering individuals to get themselves out of poverty.

Poverty can be referred to as a state or condition characterized by lack of material possession and existing without the luxuries of life. Also, poverty occurs when one is in a position to excite compassionate regard or piety, inferior in quality; and having little or no remarkable distinction, value or worth.

Moreover, poverty can also be described as a state of deprivation or lack of resources to meet the basic needs. It shows the lack of essential facilities caused by inadequate income. In 2002, the World Bank Group described poverty as a fluid concept that has many definitions. It has social, cultural, economic, political and more recently,

environmental dimensions. It can be seen as hunger, lack of shelter or being sick and not being able to afford to see a doctor. Poverty is, not being able to afford to go to school and not knowing how to read, not having a job; fear for the future; living one day at a time, losing a child to illness brought about by unclean water; powerlessness; lack of representation and freedom. Poverty means lack of income and productive resources sufficient to ensure sustainable livelihood. It manifests in hunger and malnutrition; ill health; limited or lack of access to education and basic services; increased morbidity and mortality from illness; homelessness and inadequate housing; social discrimination and social exclusion; it is also characterized by lack of participation in decision making and in civil, social and cultural life.

Poverty occurs when a person is unable to get the basic necessities of life. This means that the person is unable to attain the minimum expected living standard which comprises food, clothing, shelter, minimum education, health facilities, portable water, employment opportunities and the likes. It is therefore a "gamut" of deprivations that makes the poor voiceless and vulnerable to violence as a result of consumption shortfall (McGee, 2004). Poverty contributes to underdevelopment and its reduction leads to economic development. To be poor connotes deprivation of the basic necessities of life. In fact, poverty engenders inability to afford the minimum basic essentials like food, children education, good housing, healthcare and good clothing to mention few (Todaro & Smith, 2011: 2). Suffice to say that the poor are being denied their share of the nation's resources and other necessities that are generally available in the society for their comfort.

Poverty is a global disease that spares no country. Hence, developed, developing or underdeveloped countries all over the world always proffer measures to combat the menace. One of the popular measures is for government to embark on growth oriented programmes to alleviate poverty. Research has shown that countries recording high growth rate do not necessarily attain low level of poverty incidence. Suffice to say that increase in country's Gross Domestic Product (GDP) is not a sufficient condition for poverty reduction (Osei, 2002). To reduce poverty, Governments therefore need to develop strategies that would involve multiple programmes and policies that would be development oriented and minimize inequality and inflation (Akoum, 2008). This makes it expedient for the inclusion of macroeconomics policies and programmes for poverty eradication and reduction of inequality (Agenor, 2005). For instance, provision of social and infrastructural facilities can aid employment and reduce poverty incidence (Kalirajan & Singh, 2009).

Inequality (relative poverty) serves as an indicator of poverty. It refers to differences in income, in employment opportunities; inequality between urban and rural population and inequality in assets ownership. This occurs as a result of misappropriation and improper distribution of human and capital resources. It shows that majority of the resources are skewed in the hands of the few while the wider population lingers in abject poverty. This indicates the gap between the rich and the poor. The poverty ridden majority have little income that would not guarantee good food, quality education, adequate health treatment and basic necessities of life (Abdel-Baki, 2012; Cuong, Kalirajan & Singh, 2009; Smith, 2010; Truong, & Van der Weide, 2010). For the rapid elimination of extreme poverty

therefore adequate strategies should be focused on the share of income going to the poorest part of the population and efforts should not be concentrated on the growth rate of the economy (World Bank, 2013).

Solving the poverty problem requires the provision of infrastructural facilities like good roads, adequate electricity, schools, hospitals and creating enabling environment for manufacturing and service industries (Chukwuemeka, 2009; Sackey, 2011). Suffice to say that poverty alleviation strategies that are not all encompassing with adequate infrastructure, employment, social services and transfers are bound to fail; particularly in rural areas (Bibi & Duclos, 2010; Gaiha, 1991; Kannan, 1995; Triegaardt, 2005). To reduce poverty therefore requires the involvement of Government and structural institutional support of social workers (Mubangizi, 2008).

Education serves as one of the important pillars of economic development, particularly in human capital development (Alaba, Omonona, & Falusi, 2011). It assists the poor to be aware of the opportunities that are necessary for entrepreneurship and skill required for the financial development. In fact, studies have shown that literacy serves as a vital requirement for microcredit consideration (Abdel-Baki, 2012; Odhiambo, 2010; N. Smith, 2010). The literate people are more competent in skill acquisition and management of the business entities (Tang, 2002). Also, it has been asserted that educational status, experience and age serve as major requirements to access microcredit (Kasali & Sowunmi, 2013). Education therefore serves as the major ingredient for human capacity building that can enhance entrepreneurship to reduce poverty (Goel &

Rishi, 2012b). Attainment of relevant education could also assist in constant loan repayment and aids the job seekers to get job of their choice (Orso, 2011). Moreover, investing in human capital will go a long way in assisting the recipients to cross the poverty line and make easy the task of separating the poor from non-poor (Schroyen & Torsvik, 2005); as education is regarded as an important tool to reduce poverty and economic inequality (N. Smith, 2010). Hence, poverty is more concentrated among the non-educated than the educated persons (Aigbokhan, 2008).

The concept of poverty reduction has attracted the attention of some scholars. Empirical studies have identified some variables like inflation, age, household size, health problem, lack of savings and inadequate assets as the major causes of poverty (Chaudhry, 2009; Roslan & Abd Karim, 2009; Taylor, Xiaoyun, & South, 2012; Yusuf & Shirazi, 2013a).

Age is another constraint that can perpetuate poverty. It is discovered that poverty impacted more on the adolescents and the aged. This is due to the fact that at this stage of living, people are not agile and enterprising to earn their living. Instead, they become dependants and social parasites (Yusuf & Shirazi, 2013a).

In an empirical analysis, Aigbokan (2008) affirms that age of the household head, education of the household head; household size and location of the household constitute the major determinants of poverty level in Nigeria. The study shows that age squared coefficient has negative relationship with income. This implies that income reduces with retiring old age which tends to increase the poverty level. Also the findings indicate

positive relationship of education level and welfare. This indicates that the less educated the head of household is the most likely that the household would become poor. In the same vein, the household size has negative relationship with expenditure-based welfare and the same applies to the household size squared. This implies that increase in household size tends to increase poverty level and vice versa. The results further confirm that being a rural dweller increases the probability of being poor. However, some studies have concluded that the size of the households dictates the level of responsibility. Unless the income of the head of the household is high and/or more working members are present, the population in the household may determine the level of poverty (Bashir, Amin, & Naeem, 2010; Muller & Bibi, 2010; Otu & Eko, 2011). Although increase in income is not synonymous with reduction in poverty (Wright, 1999).

Inflation occurs when the money loses value and the purchasing power of the people reduces significantly. That is, when too much money is purchasing fewer goods. This will impoverish the people with fixed income and reduce their consumption rate. The less the quantity of goods and services consumed, the more the likelihood of people drawn below the poverty line (Odhiambo, 2010) .

Health serves as an important factor to wealth. This connotes that without good health, one will not be able to work for a living. For instance, ill-health can prevent the head of household from earning his living thereby causing unending hardship for the entire family (Jha & Dang, 2010).

Savings generates investment for more income. For savings to be adequate, the income must be high because income begets consumption and savings (Ssewamala *et al*., 2010) . With less or no savings therefore, the possibility of becoming poor is high.

Assets acquisition also serves as weapon against poverty. The more assets acquired, the more the likelihood of increase in wealth and the low is the possibility of being poor. In their research on poverty in Papua New Guinea, Jha & Dang (2010) concluded that the urban households are less exposed to poverty when compared with their rural counterpart, because, the assets acquired by the former is greater than that of the latter. Inadequate assets also serve as impediment to the poor to have access to credit or capital. Generally, in most of the developing countries, majority of the people depend on land. But in most cases land is inadequate due to Land Tenure system or owing to damages caused by storms and other natural disasters; this makes the available small portion of land to be rationed. The inadequacy of land has aggravated the rural poverty and its attendant impoverishment. It therefore beholds on the government to provide necessary machinery that will ensure land reforms and capital investment in infrastructure. Also necessary is the provision of microcredit that will bail out the rural poor from abject poverty.

Globalisation serves as another threat to poverty alleviation. It serves as a cog in the wheel of progress of African countries towards development. Although the concept of globalization engenders creation of wealth but it has perpetrated inequality and poverty in Africa (Egwaikhide, 2012; Ukpere, 2011).With the activities of the developed world and

Multinational Corporations, African countries have been marginalized and relegated. The slogan of economic integration has not really benefited the developing countries in improving employment and market opportunities. Most of the advanced economies still prevent the products of the developing countries from entering the global markets with stiff quotas and tariffs. The scenario has thus turned to master-servant relationship with obnoxious conditionality on loans and aids. There is therefore need for global regulatory policies that will assist the poor nations to develop their potentials.

Corruption, insecurity and ineptitude governance have also been identified as causes of poverty (Arogundade, Adebisi, & Ogunro, 2011; Chen & Liu, 2012; Otu, Eja,Eko & Emeka, 2011; Sackey, 2011) . This has led to pervasive inequality and escalation of poor people in the rural areas. There is need therefore for transparency, good governance and proper accountability that will lead to provision of adequate and required infrastructural facilities. For instance, facilities like water, electricity, sewage and other public services would aid the poor to earn his/her living through agriculture and other informal sector as statistics shows that about seventy percent of the world's poorest people seek their abode in rural areas with agriculture as their main means of livelihood. The poor should be given the opportunities to actively participate in making polices that directly affect them in order to reduce poverty.

Cross country and cross continent collaboration to solve poverty problem has been suggested. This can generate cross fertilization of ideas and programmes that would favour the poor regions and engender development that could increase the welfare of the

poor households (Wu & Cheng, 2010). In their view on poverty and inequality reduction Agostini, Brown, & Góngora (2010) suggest that pragmatic approach to ensure adequate cash transfer to the poor is imperative.

The role of Asset based development strategy to alleviate poverty in Sub Saharan Africa has also attracted the attention of the scholars. It was concluded that innovative savings lead asset based development strategy would go a long way to eradicate poverty (Ssewamala *et al*., 2010). It was also opined that Trade liberalization and remittances from migrants abroad may not contribute meaningfully to the eradication of poverty as case studies from Fiji, Tanga and Vietnam did not show considerable support for these variables (Brown & Jimenez, 2008; Heo & Doanh, 2009).

The above identified variables have demonstrated the fact that impact assessment of microfinance on poverty should not be limited to economic indicators. Other important variables should also be considered to show their levels and patterns of consumption. For instance assets, education and health are other important indicators that can show the level of poverty. However there must be caution on the number and type of variables that would be considered while measuring the impact. The variables must be measurable and be defined with precision (Hulme, 2000).

3.2.2 Measurement of Poverty

Poverty can be measured through the following ways:

(1) Absolute Poverty**:** The general level of poverty in the community based on the prices of the basic necessities of life. A line is drawn to demarcate the minimum

level that can be attained based on the income that can purchase these basic needs which determine the level of poverty. Those whose incomes are below this benchmark are considered as poor. This can also be described as Head Count Index which is calculated by measuring poverty through the finding of percentages of the population that live below the poverty line.

(2) Poverty line**:** This is the index that describes the official level of income that is needed for the provision of basic necessities of life and improves the economic wellbeing of the people. It is the measure that separates the poor from non-poor. In Nigeria, the Dollar Per day Poverty line is N54, 750. This measure considers people whose expenditure is less than one dollar per day considering the exchange rate of Naira to Dollar in 2009/2010 (National Bureau of Statistics, 2012). This study adopts the World Bank's Poverty line Index set at $1.25per day.

(3) Relative Poverty also referred to as Inequality is the level of poverty in comparison with other communities or beyond. This is based on the comparison of the standard of living of the people living in the society. A person is considered relatively poor if (s)he belongs to the group that the society considers living below standard in terms of their property and other essentials of life which is in line with the societal norms and culture.

(4) Poverty gap. This measures the average difference between the expenditures of the poor and the percentage of the poverty line. In other words, the Head Count Index shows the reflection of the poverty rate while the Poverty gap depicts how severe the poverty is (Heo & Doanh, 2009).

(5) Multidimensional Poverty Index. This measure is used for poverty through three dimensions and ten indicators (see section 4.2.1 for details). It confirms that poverty occurs as a result of deprivations of essential qualities of life (Alkire & Santos, 2010a).

(6) Another method used in measuring poverty is Foster Greer and Thorbeck (FGT) model. FGT determines poverty incidence, poverty gap and poverty severity. The welfare indicators measured by the conventional measures FGT (α) are given by equation (i) below. The p-values of 0, 1 and 2 reflect respectively poverty incidence, poverty gap and the poverty gap squared. These poverty measures can be expressed as follows:

$$P_\alpha = \frac{1}{N}\sum_{i=1}^{M}\left[\frac{(z - y_i)}{z}\right]^\alpha \quad \text{..... (i)}$$

Where:

Z is the poverty line (2/3 of average per capita total consumption expenditure)

y_i is income (or expenditure) of person i in a poor household

N is the number of people in the population,

M is the number of people in poor households

Different values of α in equation (i) give different poverty measures. When α = 0, this formula gives the incidence of poverty or commonly referred to as the head count index. It reflects the proportion of the population lying below the poverty line. This is because

the term in brackets is always one, so the summation gives the total number of people in poor households, which, when divided by *N*, gives us the proportion of people living in poor households. This measure is however indifferent to the extent of poverty of the poor.

Alternatively, when $\alpha = 1$, it gives a measure called the depth of poverty (or the poverty gap). P_1 takes into account not just how many people are poor, but how poor they are on average. It is equal to the head count index (P_o) multiplied by the poverty gap ratio. This index gives a good measure of the extent or intensity of poverty as it reflects how far the poor are from the poverty line. It can therefore be used to calculate the amount of income that needs to be transferred to the poor in order to eradicate poverty under perfect targeting. However the poverty gap ratio is insensitive to income distribution among the poor.

When $\alpha = 2$, this equation gives a measure called the severity of poverty (or squared poverty gap). P_2 takes into account not just how many people are poor and how poor they are, but also the degree of income inequality among poor households. It is equal to the head count index (P_0) multiplied by the average squared percentage gap between the poverty line and the income of the poor. It therefore attaches greater weights to the poorest of the poor. The poverty gap squared reflects the degree of inequality among the poor in the sense that the greater the inequality of distribution among the poor, the severity of poverty and therefore the higher the P_2 (Foster,*et al.*,1984; National Bureau of Statistics, 2007).

Income inequality can be measured using Gini co-efficient and Lorenz curve. The Gini co-efficient is often calculated with the Brown Formula shown below:

$$G = \left| 1 - \sum_{k=0}^{k=n-0} \left(X_{k+1} - X_k\right)\left(Y_{k+1} + Y_k\right) \right| \quad \text{..... (ii)}$$

Where:

G is Gini coefficient

X is cumulated proportion of the population variable

Y is cumulated proportion of the per capita consumption expenditure (Steijn & Lancee, 2011).

3.3 Meaning and Characteristics of Microfinance

This section reviews the literature on the conceptual meaning and other features of Microfinance.

3.3.1 The Concept of Microfinance

Microfinance is an economic development strategy that aims at poverty reduction by providing financial services to the poor, low income earners households and micro-entrepreneurs that are deprived of getting the same services from the formal financial market. These services include savings, credit, insurance and other development services like health, education, human empowerment, skill acquisition, training and environmental

protection. Although microfinance is not a magic that can turn the poor into non-poor overnight, its development strategies and programmes can serve as a spring board that can uplift the poor households above the poverty line (Martin, Hulme & Rutherford, 2002).

Microfinance can also be described as the process of advancing small loans to the poor with the aim of financing cottage and small scale businesses that would provide adequate income to take care of the recipients' responsibilities. Microfinance programmes which were originally designed to assist the poor households and advance credits to entrepreneurs also provide services like savings, rural credit, Agricultural credit, consumer credit and other financial services (Osei, 2002) . In addition, the services include payment and insurance services to the poor people (Copestake, Duvendack, Hooper, Loke, Palmer-Jones, & Rao, 2010) . Microfinance also connotes the procedure of making available very small range of financial services to the poor with the purpose of making them take up new opportunities and participate in productive activities. It is a development tool that makes possible the rendering of services like money transfers, savings opportunities, and credit and insurance services. Microfinance entails both financial and social intermediation. Microfinance programmes can contribute to high standard of living if properly managed (Bashir *et al*., 2010; Muller & Bibi, 2010). It is therefore an economic phenomenon that enhances the potentials of low income group.

Microcredit is a subset of microfinance. It finances microenterprises and poorest people that cannot afford to pledge collateral security to obtain loan from conventional banks.

Therefore microcredit assists the poor to increase their living standard and their family welfare through short term credit facility that can generate revenue activity.

Studies have revealed that countries with well-organized and efficient financial intermediaries recover faster from poverty and inequality than their counterpart with moribund financial development and uncoordinated microfinance services (Kalirajan & Singh, 2009; Yang, Jialali, & Wei, 2011).

The operation of Microfinance can only thrive if the repayment schedule is met promptly by the customers. Empirical studies have shown that loan repayment is determined by the quality of the beneficiaries and other factors like education, distance of the lender to the customer's business, amount of loan, duration of the loan, gender and sanction threat to the borrowers (Roslan & Abd Karim, 2009; N. Smith, 2010; Tang, 2002). It was also asserted that loan repayment would be more effective when the Microfinance Institutions relax their stringent conditions and give the programmes adequate supervision with realistic loan repayment procedure. This can also encourage adequate participation of the poor (Ali, A.H., Abu-Hadi, & Ali, 2013). In another development, factors like loan size, outreach, shocks, officer's experience and training duration were considered as the major determinants of microfinance loan repayment (Onyeagocha, Chidebelu, Okorji, Ukoha, , Osuji, & Korie, 2012).

3.3.2 Characteristics of Microfinance

Microfinance involves the rendering of financial services to the poor and low income earners together with their micro businesses. It is widely acclaimed that Microfinance can serve as an effective tool to solve poverty problem worldwide. To fully comprehend the features of Microfinance, it is very essential to know its basic characteristics. Murty, Kiran, and Goel (2013) provide succinct description of the characteristics of Microfinance products as follows:

- Usually involve small amount of loans and savings.
- Duration of loans is short- term (one-year maximum).
- Installmental frequent loan repayment schedule and/or deposits.
- Both principal and interest comprise the installments which are amortized for a specific period.
- The loans attract high interest rates (always higher than commercial bank rates but not up to the rates from informal sector).
- Closeness of MFIs' staff and the client enables the former to understand the financial and social status of the latter. This enhances the easy assessment of the clients.
- Simple application procedures when compared to the commercial banks' cumbersome process.
- Time saving. It takes lesser time to process and obtain loan than that of commercial banks.

- Provides incentives for timely loan repayment. Clients that complete their payment in time have opportunity to apply for more loans with higher amount than before.
- Make use of 'tampered interest rates'. This involves the decreasing interest rates for repeated and higher amounts of loan. The higher the amount of loan, the less the interest rate charged.
- Loans do not require collateral. Unlike the commercial banks, MFIs do device several methods to secure their loans save collateral.

It should be noted that the above highlighted points are the expected characteristics of what the microfinance products should possess. In practice, their requirements are not generally uniform. This is due to the fact that despite their common objective of poverty reduction through credit accessibility, yet they have different designs based on particular environment and circumstances (Morduch, 2000).

Ideally, microfinance organizations are supposed to reach out to the very poor and deliver microfinance services to local clients daily. They are also expected to educate local communities about the opportunity to improve their lives with microfinance loans; and provide other financial services such as savings accounts; collect weekly loan repayments; and assist clients in solving some of the life challenges they may face. All these programmes focus attention towards the provision of financial services to the poor households. In practice, some Microfinance Institutions give priority to the sustainability

of their programmes while others pursue the major goals of economic and social impacts on the beneficiaries (Morduch, 2000).

3.4 Accessibility to Microfinance Loan by the Rural Poor

Accessibility to microfinance loan by the poor can serve as a vital role in poverty reduction and economic development particularly in a developing economy. Access to Microfinance connotes the ability and willingness to borrow and repay the lender at the price that will cover his cost (Mukherjee, 2014) .

Although Microfinance Institutions (MFIs) majorly provide microcredit, other financial services rendered by the Institutions include savings deposits, micro-leasing, payment transfers and micro-insurance to the economically active poor, especially in rural and other less developed areas, in order to establish or expand their businesses. Hence, MFIs serve as development organizations that provide financial services to the poor (Osotimehin, Jegede & Akinlabi, 2011). However, several opinions have sufficed that Microfinance Institutions have become prominent in the crusade of poverty reduction; moreover, analysis from the other camp have revealed that microfinance loan does not reach the poor (Hulme and Mosley, 1997) (as cited in Dulal, 2007). This controversy notwithstanding, studies have shown that in spite of the fact that microcredit can assist the economically active poor to enlarge their business enterprises and improve their standard of living; accessibility of the rural poor (especially women) to formal finance institutions for credit is being hampered by lack of collateral, inadequate skill, non-

operation of bank account and inability to pay loan back due to low per capita income (Joseph & Imhanlahimi, 2011).

Having access to microfinance reduces the propensity to borrow from informal lenders as the interest rate of the former is less than the latter. Hence, borrowers from Microfinance Institutions are expected to benefit from income growth as a result of increase in savings and investment in the long run (Islam, Nguyen, & Smyth, 2015). In addition, literature has testified to the fact that microfinance interest rates are significantly lower than that of informal lenders (Islam *et al*., 2015; Khandker & Samad, 2013, 2014).

Access to credit plays a prominent role in poverty reduction particularly among the poor rural dwellers. For instance, access to microcredit by a peasant farmer can assist her/him to buy farm implements that can serve as input for improved productivity. In the like manner, accessibility of microcredit by a rural/urban artisan or micro entrepreneur can enable him/her to increase the working capital that can boost the trade with improved customer satisfaction, increased income and eventually escape from poverty trap. All this can lead to increase in household's literacy level, improved health status and better living standard (Todaro & Smith, 2011: 763). In addition, access to microcredit can boost the working capital for microbusiness which can spur income generation, create employment and eventually reduce poverty. Conversely, inability of the poor to access microcredit as a result of constraints and stringent conditions can further impoverish the poor. This has been identified as one of the major causes of rural poverty (Obisesan & Akinlade, 2013) .

In the developing nations the need for microfinance becomes expedient as a result of lack of transparency of the public and private banks who fail to make full disclosure of the nature of their loan disbursements and the various components of their investment portfolios which are used to favour mainly the large and medium scale industries. Even Development Banks do not help the situation. The latter also concentrate their loanable funds on the medium and long term credits for large scale industrial enterprises. This is based on the argument that the micro and small enterprises loans have high transaction costs and they cannot justify the time and efforts that will be spent on project appraisal. Hence, micro and small enterprises, which are the major hope for the transformation of the poor, are denied the opportunity of accessing credit at reasonable and affordable interest rates.

Although microfinance cannot perform magic by playing the pivotal role of poverty alleviation, it is the general view that the programme can only increase the standard of living of people if and only if it is strategically designed and properly implemented (Snow & Buss, 2001).

Operations of microfinance programmes are being discharged with different models. Prominent among them are village banking, group lending/ savings otherwise known as Grameen Model and Individual lending Scheme. Each group has its own peculiarities. While the individual scheme may require guarantor or collateral, Grameen solidarity groups use 'peer pressure' to ensure prompt loan repayment. The latter's joint liability can prompt loss of social capital for defaulters. Default of a member of the group can

portend adverse effect on the other members in form of their inability to secure further loans. The peer pressure can therefore compel the borrower to take "risk-averse activities" by ensuring frequent loan repayment instalments. This can lead to the depletion of borrower's capital (Todaro & Smith, 2011: 742).

However, some limitations of Microfinance scheme have been identified as follows:

A) It has been argued that people prefer salary and regular wages to subjecting themselves to the risks of microenterprises. Microfinance, according to the argument can therefore be used as transitional institution that can be embarked upon before securing formal employment.

B) Also, it is rarely possible for a low income entrepreneur to rise to the level of medium scale entrepreneur. Therefore microfinance does not play the expected role of development financing.

C) That microfinance may not directly solve the problem of poverty. Instead, the argument continues, the programme only attempt to indirectly engender financial services that can spur commercial activities to generate income and reduce unemployment which can solve poverty problem.

However, it was further stated that in order to achieve the objectives of microfinance programmes, additional services are required. For example the Government would have to improve the regulatory and supervisory role on the financial market, train financial officials to be more focused on financial prudence, fine-tune the tax collection method for efficiency, and encourage the foreign banks' participation in the economy. Other

measures are that the Government should concentrate the financial services on small and medium scale enterprises development; improve the efficiency on employment generation, enhance the provision of microcredit, micro- saving and micro- insurance with business training education, health programmes and other related financial services to the poor in order to reduce poverty.

Moreover, three debates have evolved on microfinance programmes. The first debate has to do with the removal of subsidy on microcredit. The proponents of this school of thought are of the opinion that with the removal of subsidy from the loan, more clients would be reached and the programme can be self-sustained. On the other hand, others argue that if subsidy should be removed, it should only affect the Microfinance banks that are established for profit to serve the medium and large scale businesses. But subsidy should be retained with the Microfinance Institutions that are not- for- profit institutions but were established to serve the poor and low income earners.

The second debate is on the additional services to the microfinance clients in form of health, education and business training for micro entrepreneurs; bearing in mind that unhealthy and those who lack business skill would not be able to make good returns on the loan. This was exemplified by Bangladesh Rural Advancement Committee (BRAC) and the results were tremendous.

The third debate is whether Microfinance Institutions (MFIs) should be commercialized. By implication, this means that a not-for-profit Non-Governmental Organization should

be converted into full commercial profit making institution and render full banking services in order to ensure sustainability. This idea may not favour the low income earners whose services may be considered too costly for a commercial bank and may not be able to afford high interest rates as earlier stated (Todaro & Smith, 2011:743). However, the onus is still on Government to make microcredit accessible to the poor and low income earners in order to reduce poverty and ensure economic development.

Factors determining the household accessibility to microfinance loan have been conceptualized into demand and supply sides. On the demand side are the factors like Education, gender, family size, household expenditure and group lending (Yusuf & Shirazi 2013a).

In fact, more household related factors like gender, age, marital status, Household size, experience/skill in business, level of education and income have been identified as impetus to household demand for microfinance loan and by extension facilitate the accessibility of credit (for example, Arun *et al*., 2006; Ashraf & Ibrahim, 2014; Balogun & Yusuf, 2011; Obisesan & Akinlade, 2013) .The supply side related factors include institutional factors like strict requirement of collateral, long duration of approval, unfamiliar terms of repayment and high cost of securing the loan (Ali, Abu-Hadi, & Ali, 2013; Dimoso & Masanyiwa, 2008; Siyad, 2013). This study concentrates on the demand factors of the accessibility of microfinance loans by the rural poor.

Accessibility to microfinance loan is very important in the crusade of poverty alleviation. To identify the factors that would enhance proper access to microcredit by the rural poor would not only aid rural development but can also guide the government to make more pro-poor policies that would influence more credit to the rural areas and reduce poverty incidence. The theoretical concept of the accessibility to microfinance loan can be explained with the Discrete Choice Theory where the individual has the choice to either apply for the loan or not. The choice to apply for the loan portents that the applicant or household intends to maximize his utility by borrowing from the lender with the opportunity cost of interest rate. The Discrete Choice Theory (DCT) is used in several disciplines including marketing and other applied economic disciplines to study the human behavior as he makes choices among alternatives like the potential microfinance loan applicant that can decide to either apply or not. The theory explains a choice behaviour that predicts how human beings make choices. It was propounded by Thurstone in 1927 with the name - Random Utility Theory (RUT). The theory affirms that man possesses latent construct utility (latent construct) which cannot be discovered by the researcher. In essence, a human being has a "utility" for each choice alternative which is not disclosed to the researcher hence it is called "latent". This latent utility can be grouped into two: a systematic (explainable) and unsystematic (unexplainable) components. The systematic component consists of characteristics that explain the choice alternatives and covariates that explain why an individual takes choices. While the unsystematic component consists of all unidentified variables that influence choices (Louviere, Flynn, & Carson, 2010).

From the supply side of microfinance loan accessibility, the Credit Rationing Theory is applicable. Having noted that the credit is a contract between lender and borrower, the microfinance loan applicant would demand for the loan and the Microfinance Institution would approve after the screening of the application and the requirements are met. The borrower would take microfinance loan if he expects maximum utility that would be higher than the opportunity cost (interest) of the loan. The lender requests for collateral security and increase the interest rate if the demand for the loan is more than supply. The lender can then ration the loan and by implication, some applicants will receive full amount or part of the amount applied for while others will be disappointed when their applications are not approved (Zeller, 1994). This can be adduced to principal agent problem (Stiglitz, & Weiss, 1980).

3.5 Microfinance and Poverty Alleviation

Having expressed the meanings of poverty and microfinance, it is basic to assess the role of microfinance in alleviating poverty. When the definition of poverty alleviation is expanded to include social dimensions, there are profound implications for the design of microfinance institutions and programmes for poverty alleviation. It implies a social intermediation and even a confidence building role for programmes.

Microfinance, which was hitherto referred to as informal finance or rural finance evolved in some European countries in eighteen and nineteen centuries; tagged as Banks for the poor. Similarly, in Asian countries like China, India, Indonesia and Philippines, Microfinance was presumed to have a longer history (Seibel, 2005). What can be termed

as the modern Microfinance has its antecedent in Bangladesh with the commencement of Grameen Bank project in 1974. Grameen Bank, usually referred to as Rural Bank was started by Muhammad Yunus, a Professor of the University of Chittagong (Bangladesh) in 1976. The bank mainly targeted rural women for its credit programmes. It introduced group lending strategy called social security to make credit available to the poor, usually denied by traditional banks due to the lack of physical collateral. Group lending operates through the principle of joint liability whereby the members of the group monitor the loan disbursement and repayment. Default of a member implicates other members and the latter pay from the joint resources to avoid future denial of loan to other members. This system especially aims to empower women and give them the opportunity to participate in household decisions (Mainsah, Heuer, Kalra, & Zhang, 2004). With the latter's success, several developed and developing countries adopted the Grameen Bank approach of micro financing. For instance, in 1986, Amanah Ikhtiar Malaysia (AIM) was established as a pilot project with the main aim of reducing poverty and increasing income of Bumiputera and Malays in particular, through microcredit called Ikhtiar financing scheme for poor households in rural areas (Siwar & Abd. Talib, 2001). In the same manner, The Bank Rakyat Indonesia (BRI) is well known for its success stories in rendering conventional banking services to the low income borrowers. Its attractive banking services have benefited the rural low income households and other numerous clients (Matin, Hulme, & Rutherford, 2002).

It is also on record that the Microcredit Summit launched in 1997 the global campaign to expand the coverage of microfinance to 100 million of the world's poorest micro

entrepreneurs by 2005. Hence, the United Nations declared year 2005 as the International Year of Microcredit (El-Komi, 2010). Furthermore, it was generally asserted that in order to have an effective poverty reduction strategy in Nigeria, there would be need for "specially tailored" financial services that would enable the artisans to engage in economic activities (CBN, 2005).

Microfinance has been recognized all over the world as a method of credit that can be used to eradicate poverty. This is due to the fact that it renders financial services to the poor who possess low income, low assets and lack collateral to secure loans from conventional banks. The major objective of microfinance is therefore to reduce poverty by providing short term small credit facilities to low income earners and other deprived poor who are not "bankable" according to the commercial banks' standard. And they cannot pledge collateral securities to back their credits, they lack good documented record of previous credit history and they lack gainful employment. The Bank therefore requires high costs of transaction with such category of clients.

Microfinance involves the rendering of financial services to the poor and low income earners together with their micro businesses. It is widely acclaimed that Microfinance can serve as an effective tool to solve poverty problem worldwide. It is an essential aid for increase in productivity of the poor and essential ingredient for economic development (El-Komi, 2010).

The development of financial sector will go a long way to contribute to economic growth and development. Suffice to say that the development of viral and efficient financial instrument like microfinance to fund micro and small enterprises will generate more employment; improve the standard of living, health, education, savings and serve as a formidable measure to reduce poverty (C. J. Green, Kirkpatrick, & Murinde, 2006). Also, in his study of the impact of microfinance on rural Area in Pakistan, Asghar (2012) affirms that Microfinance can serve as a strong tool to increase the income of the poor and household education. He concludes that income generated from the credit of microfinance will reduce poverty and increase both economic and social well beings.

3.6 Review of Empirical Literature on the Accessibility to Microfinance Loan

To achieve a sustainable economic development, there is need for microcredit that will empower the ambitious entrepreneurs to engage the necessary inputs for efficient production. If properly used, microfinance services can solve the problem of unemployment, enable the dependants to be independent in economic wealth and improve the income of an average household.

Microfinance plays the vital role of providing microcredit to the poor who are constrained to acquire such assistance from the conventional banks due to the lack of adequate collateral and other requirements by the latter. Furthermore, microfinance institutions service their customers with microcredit without the usual bottlenecks that the commercial and merchant banks will impose.

To have access to microfinance services implies the right of the economically active poor to use or obtain such services from Microfinance Institutions (MFIs) in order to establish or expand micro-businesses. Such participation in MFIs' programmes have benefits of employment creation, increase in income and welfare; and eventually alleviating poverty.

Household access to credit implies that such a household is able to borrow from that source, although it may not necessarily obtain loan from such source. Accessibility to credit can be measured by the credit limit of such source, where this is positive, such household is assumed to have access. Taking loan from the credit access is referred to as participating and the household is credit constrained when it cannot borrow as much as it wants from that credit source (Diagne & Zeller, 2001). Conversely, lack of adequate accessibility as a result of constraints and stringent conditions can further impoverish the poor; as access to credit can significantly reduce poverty (Awotide, Awoyemi, & Oluwatayo, 2015).

In their study on The Accessibility of Microfinance for Small Businesses in Magadishu, Somalia, Abu-Hadi, Ali and Ali (2013) discovered that small businesses face difficulties in the study area as a result of the requirements demanded by microfinance banks before the loan approval. These include individual collateral, repayment capacity, security deposit and guarantor. To ensure high loan repayment, the study suggests adequate supervision and effective loan repayment procedure. Considering the role of small businesses as a catalyst for economic growth and development it was concluded that

MFIs should relax their requirements for microcredit to encourage the participation of the poor people.

It has also been asserted that women have no free access to microfinance loan due to the fact that they lack required assets to be pledged as security. Since women were unable to inherit land and other property like their male counterparts which can be used as collateral. Also they have no freedom to obtain loan without their husband's consent. To encourage women to access microfinance loan would therefore require the assurance that their deposits are safe; the MFIs are ready to charge low interest on loan, allow convenient savings; and easily disburse credits for the operation of the businesses in order to increase their wellbeing (Okojie, Eghafona, Osaghae, & Ehiakhamen, 2009). After all, the world wide experience has shown that when the poor rural women have access to microcredit, there is always high savings and repayment rates, microenterprises growth are enhanced, child nutrition improves and there is upliftment of general welfare, family health, shelter provision, household sanitation and education (Garikipati, 2008, 2012; Okojie *et al.*, 2009).

For microfinance to be easily accessible to the rural poor there would be need for provision of adequate infrastructural facilities in the rural areas. Such provision would encourage the establishment of large number of banks in such communities. Also the banks should be able to secure more funds to be released to their clients (Christopher, 2008; Joseph & Imhanlahimi, 2011). Moreso when research has confirmed that rural poor are at disadvantage when their accessibility to loan is compared with urban poor; due to

lack of adequate infrastructure. To that effect, they receive fewer funds and save more (Oluyombo, 2010).

Access and outreach of microfinance programmes to the actual poor has caught the attention of some researchers. Ghalib (2010) conducted an empirical survey study on how microfinance programmes have reached the rural poor in Pakistan, using factor analysis and Principal Component Analysis (PCA) to analyse the data collected from 1,132 households consisting of borrowers and non-borrowers of microfinance loan in rural province. The study concludes that the depth of poor outreach was significantly low. That is, the poorest people are not being served by Microfinance Institutions. The study further implores MFIs to strive to achieve the "depth" objective instead of the "breath" in order to solve poverty problem.

Atieno (2001) investigated the determinants of credit accessibility of Small and Medium Enterprises (SMEs) in Kenya in order to increase the income of the rural poor through credit. The study involved a survey of 334 SMEs in rural Kenya. It was discovered that SMEs in rural Kenya did not have access to financial sector due to constraints from the supply side like credit rationing and stringent loan conditions. The study suggests that improvement of terms and conditions by the lenders would enhance credit access.

Xia, Chistopher, and Baiding, (2011) conducted an empirical study on the factors that influence the accessibility of rural households to microcredit in China. The survey used Logit Regression to analyse data collected from 50 villages of Hubei province in China.

A total sample of 424 household heads comprising 328 microcredit borrowers and 96 non-borrowers were randomly selected from the study area. The findings revealed that poor rural households including women have limited accessibility to microcredit in China. The study further identified twelve factors as determinants of microcredit accessibility in rural China. Prominent among them are: household size, educational level, income, assets value, savings, self-employment and economic dependent ratio. While household income among others was identified as positive contributor to the likelihood accessibility; assets, savings and household size have negative relationship with the microcredit accessibility of the rural poor. The result of the survey further identifies interest rates, document requirements and loan processing time as supply side factors that can impede easy accessibility of the poor to microcredit facility. The study concludes that rural households should increase their demand for microcredit while MFIs should design suitable products with realistic and less cumbersome procedures for loan accessibility. This result agrees with the views of Evans, Adams, Mohammed, and Norris (1999) and Umoh (2006).

In an empirical study on the factors that determine the accessibility of SMEs to credit market in Akwa Ibon state of South South zone of Nigeria, Akpan, Patrick, Udoka, Offiong, and Okon, (2013) used independent double hurdle model to examine the activities of 90 poultry firms towards the demand for credit for their operations . The study identifies age, gender, farm size, distance to the source of credit, years of education, household size as the key determinants of credit accessibility and the skill of the borrower as the major determinants of the amount borrowed. The study concludes

that there is need to form cooperative societies for proper accessibility of microcredit. The findings agree with that of Essien and Arene (2014) who investigated the factors that determine the performance and accessibility of SMEs to credit in the same study area. The study explored logit model to analyse data collected through questionnaire, from 264 SMEs that accessed credit from informal source and 96 SME firms that have access to formal financial credit institutions. The study implores the Government to give priority to easy access to formal credit.

Access to credit always has influence on the productivity and efficiency of the rural poor. Omonona, Lawal and Oyinlana, (2010) examine the determinants of credit constraint condition and production efficiency among farming households in Oyo state, South-West Nigeria. The data for the survey was collected from 120 farmers and analysed with Probit regression and stochastic frontier analysis. The study identifies age, gender, education, dependency ratio, marital status, household size, skill, nature of land and farmer's distance as factors that determine the credit constraints, and this invariably influence the farmer's efficiency. It was emphasised that there is need to increase the credit accessibility of the rural farmers.

Nguyen (2007) evaluates the determinants of rural households' credit activity. The study which used data from Vietnam Living Standard Survey of 1992/1993 and 1997/1998; explored bivariate probit and Heckman selection model for the analysis. The results identified household head's health, age, age squared, gender, marital status, education, employment, assets and household size as demand side factors; while collateral demand,

credit amount per capital in the commune and distance to bank were identified as the supply side factors that determine the constraints to credit access. It was discovered that education has u-shape relationship to borrowing. This implies that the most educated people borrow least. The more distance the location to the bank, the least the supply of the credit facility. The study further discovered that low investment does not encourage demand for credit; therefore the Government is implored to provide infrastructural facilities, health and education services to enhance easy access and efficient use of available credit.

From the supply side, the inaccessibility of microfinance credit was adduced to strict requirement of collateral, long duration of approval, unfamiliar terms of repayment and high cost of securing the loan (Siyad, 2013). Iqbal (1983) conducted an empirical research on borrowing functions of rural households in India with the use of Life Cycle and Permanent Income model. The study discovered that the demand for fund is sensitive to interest rates and concludes that low interest rates can enhance the poor's access to microcredit. Similarly, Balogun and Yusuf (2011) investigated the determinants of demand for microcredit among the rural households in South-West Nigeria. The study used Multinomial logit model to analyse data collected from 399 respondents in Ekiti and Osun Senatorial districts. The findings also revealed that interest rates among other factors determine the demand for credit. However, the interest rates adjustment alone cannot influence the ultra-poor to access microcredit but should be accomplished with training for the human capital development and health insurance to take care of health problem (Mukherjee, 2014).

In their study on A critical look at the role of microfinance banks in poverty reduction in Tanzania: A case of Akiba Commercial Bank Limited, Dimoso and Masanyiwa (2008) conclude that most of the poor people cannot access microfinance loan because of the fact that they lack adequate assets and cannot afford necessary savings and deposits that will serve as collateral. Microfinance Institutions and government are therefore implored to design the programmes that will assist the poor to have easy access to microcredit.

However, Brau and Woller (2004) suggest in their study that for the microfinance institutions (MFIs) to be more active and efficiently perform their expected responsibility, they need to raise funds from the capital markets. This will enable them to be sustainable and self-sufficient to tackle the poverty alleviation mechanism. Also, microfinance institutions need to include to their product portfolio services; loans for enterprise formation and development, consumption/emergency loans, savings, insurance and business education.

The above empirical studies on the accessibility of microfinance did not consider business worth as one of the determinants of microfinance loan accessibility to the poor. This is one of the contributions of this study.

3.7 Review of Empirical Literature on the Impacts of Microfinance

Researchers have made efforts to assess the impacts of microfinance on poverty alleviation in various countries. In addition, financial institutions, donor agencies, Non-government organizations and policy makers have shown considerable interests to know the effect of MFIs on the welfare of the poor. Table 3.1 shows the outcomes of these impact assessments.

Table 3.1
Impact of Microfinance

Author/Date	Title	Country	Sample size	Methodology	Findings
Khandker and Mark P.H (1998)	The Impact of Group-Based Credit Programs on Poor Households in Bangladesh: Does the Gender of Participants Matter?	Bangladesh	1,798 Microfinance household members and non-members through data collected by World Bank and the Bangladesh Rural Development Board in 1991-92.	Quasi-experimental survey design. Using Weighted Exogenous sampling maximum likelihood-limited information, maximum likelihood- fixed effects and Instrumental variables regression.	Grameen microfinance loan, obtained by women in particular, increase the household expenditure, family's level of education and good nutrition among others.
J. Morduch (1998)	Does Microfinance Really Help the Poor? New Evidence from Flagship Programs in Bangladesh.	Bangladesh	About 1,800 microfinance clients and non-client households in Bangladesh taken from 1991-92 Cross-sectional survey.	Difference-in-difference methods.	Microfinance loans encourage mild increase in consumption and less vulnerability of the clients to poverty.
Khandker(2005)	Microfinance and Poverty: Evidence Using Panel Data from Bangladesh.	Bangladesh	1,638 participants and eligible non participants panel households.	Panel Data analysis using alternative estimation technique.	There is always 20 percent increase on microcredit given to women. Impact of microfinance is always greater on the extreme poverty than the moderate poverty. And, microfinance accounted for 40 percent of the entire reduction of moderate poverty in rural Bangladesh.

Source: Adapted from Grameen Foundation USA Publication Series

Table 3.2 further outlines the effect of microfinance on its beneficiaries particularly on the rural poor.

Table 3.2
Measuring the Effect of Microfinance

Author/Date	Title	Country	Sample size	Methodology	Findings
B. Coleman (2002)	Microfinance in Northeast Thailand: Who Benefits and How much?	Thailand	Survey of 444 households in 14 villages in Northeast Thailand	Weighted t-tests and weighted logit estimates were used to analyse the data.	The wealthy people do participate in microfinance loan and become wealthier
E. Edgcomb & C.Garber (1998)	Practitioner-led Impact Assessment: A Test in Honduras	Honduras	144 respondents of loan participants and non-participants.	Survey method of comparing cross-sectional data of banks clients and non-clients. It also include interview of village bank members and loan applicants. Simple statistical package and simple content analysis were used to analyse the data.	Increase of 75 percent on profits of microfinance loan participants over non-participants.
B. MkNelly & K. Lippold (1998)	Practitioners-led Impact Assessment: A Test in Mali (1998)	Mali	Sample size of 94 one year, two-year and incoming clients.	Interview survey was conducted. EpiInfo, a simple statistical package was used to analyse the survey study.	The more the circles/rounds of participation in micro financing, the more the income.
D. Karlan (2001)	Microfinance Impact Assessment: The Perils of Using New Members as a Control Group.	Not applicable	Not applicable	Conceptual paper based on the critique of cross-sectional data on treated and control groups for microfinance impact assessment.	Participants' skill in entrepreneurship always enhances prompt loan repayment and business profit.
G. Alenxander (2001) as cited in (Goldberg, 2005)	An Empirical Analysis of Microfinance: Who are the Clients?	Peru		Longitudinal data from Assessing the Impacts of Microenterprise Services (AIMS) project.	Confirms that microcredit assists the poor.

Source: Adapted from Grameen Foundation USA Publication Series

In the same vein, further studies of the clients of microfinance institutions like SEWA Bank, India; Zambuko Trust, Zimbabwe and Mibanco, Peru; testify to the fact that microfinance improves the wellbeing of the participants. Other relevant researches that justify the positive impact of microfinance are ASHI Philippines, FINCA Uganda, FOCCAS and PRIDE Uganda, ICMC Bosnia and Harzegovina, BRAC Bangladesh, SHARE India, Kashf Pakistan, CARD Philippines, Moris Rasik, Timor Leste, Local Initiatives Projects Bosnia and Herzegovina; and Sinapi Aba Trust Ghana (Goldberg, 2005).

Khandker and Binswanger (1989) investigate the impact of formal credit on output and employment of the beneficiaries in rural India. District level panel data for 9 years (1972/73-1980/81) were used with two stage model. It was discovered that the use of formal credit in rural India has led to increase in output and non-farm employment. Similarly, Zeller (1995) carried out conceptual and empirical study on the effects of access to finance on income, food security and consumption on 189 rural households in Madagascar in 1991/92. Factors like income, price, education of household head, age of household head, divestment of assets, increase in assets and gifts were considered in the impact measurement. The findings affirmed that development of rural financial market has positive effect on income generation, education, poverty alleviation and agricultural technology. It increases consumption in food, health services and increase productivity.

Wydick (1999) conducted an empirical research to assess the impact of microenterprise credit on class structure in developing countries. Data were collected from rural

Guatemala in 1994. Out of the 358 rural entrepreneurs, 236 were microcredit participants while 122 serve as control (non-participants). Logit regression model was explored and variables like experience, age, education, gender and sales were used to explain the outcome. The findings revealed that access to credit enhances upward class mobility than formal education as there was a noticeable movement from self-employment to labour supervision.

Smahi and Benhabib (2011) examine the impact of microfinance on poverty in rural Algeria. The study used sample of 429 microfinance loan beneficiaries and explored two-stage Least Square Regression method to assess the effect on gender, education, housing, age and expenditure. It was concluded that the impact of microfinance is less significant in reducing poverty in Algeria. In the same vein, Hermes and Lensink (2011) attempts to identify the impact of microfinance on socio-economic situation of the poor in developing countries and confirm its sustainability and outreach. The paper opines that access to finance can contribute to increase in income, accumulation of assets, improvement in household consumption; and can reduce the exposure to illness, drought and crop failure. It may also improve the level of education, health status and housing facilities. The study posits that individual based MFIs focus mainly on wealthier clients in order to cover their cost of operation. It was therefore affirmed that there is trade-off between microfinance outreach (length) and sustainability (breath) and they have conflicting goals.

Also in his study of an area in Pakistan on the impact of microfinance on poverty alleviation Ayuub, (2013) concludes that microfinance contributes tremendously in the reduction of poverty, increase of standard of living and income, adequate empowerment, and it also revives the economy. This is consistent with the studies of Kashif, Durrani, Malik, Scholar, & Ahmad, (2011) who added that microfinance can contribute to the improvement of the business performance of the beneficiary. In the same vein, Shane,(2004) confirms that microfinance can enhance the increase in well-being of the borrower with increase in children education and consumption of health services. Assessing the impact of microfinance on the Millennium Development Goals in a district in Pakistan, Setboonsarng and Parpiev (2008) affirm that microfinance has positive impact on production capacity, consumption, assets and Income.

In another development, Islam, Nguyen, and Smyth, (2015) conducted study on the influence of microfinance loan on household borrowing from informal sources in village economic system of Bangladesh. The study used panel data for twenty years (1987-2008) with baseline survey of 1,240 rural households administered in 1987-1988 from 62 villages located in 57 out of 64 districts in Bangladesh. With the use of Propensity Score Matching method for the analysis, the results revealed that access to microfinance loan reduces the demand for informal loan, increases women's borrowing for consumption usage and encourages borrowers to change from paid labour to self-employed businesses because of reduction in the cost of capital.

Using Propensity Score Matching (PSM) method, Arun, *et al*. (2006) used a national-level cross sectional household data set in 2001 to measure the impact of microfinance on the households poverty reduction in India. The result revealed that microfinance was able to play a significant role in reducing urban and rural poverty in India.

In his research on microfinance and poverty Khandker, (2005) used Panel Data from Bangladesh to measure the effect of microfinance on poverty reduction. The results of the study show that having the opportunity to use micro-credit leads to reduction in poverty, particularly for female participants and also contribute to poverty reduction in the entire study area. He therefore concludes that microfinance assists not only the poor participants but also contributes to the development of local economy.

Assessment of microfinance impact on income has revealed mixed results. While some studies affirm positive impact of microfinance on income, it is less significant in others. As a development on the assessment methodology of microfinance impact of Gaiha and Thapa (2006), Gaiha and Nandhi (2007) conducted an empirical study to assess the impact of microfinance through self-help group and the role of microfinance in rural development and poverty alleviation in Maharashtra, Pune District of India. Data were collected in six villages consisting respondents who belong to treatment and control groups. The independent variables identified include age, education, wealth, occupation, caste, income, savings, dependence on informal loan and women autonomy. The findings of the study revealed that the effect of microfinance is unsatisfactory on income but there is improvement on caste, landlessness, illiteracy and savings. Loans were used mainly for

health and children education, and production related expenses. Women empowerment was confirmed but with longer working hours. There was also reduction in violence.

Pati and Lyngdoh (2010) assessed the socio-economic impact of microfinance on individual family in Meghalaya, Northeast India. The study used PSM and Difference-in-Differences (DID) method to analyse data collected from 150 clients and 75 non-clients (all women) of microfinance banks. The results revealed that microfinance loan makes significant increase in income, expenditure, savings, wellbeing, education, health, capacity building and access to social amenities for the clients than non-clients. In a similar study, Jamal (2008) evaluated the socio-economic impact of microfinance in Pakistan. DID method was used to analyse data that consist of 3,400 borrowers and non-borrowers from six large microfinance institutions in Pakistan. The identified explanatory variables include expenditure, child education, women empowerment, assets, health status, household size, dependency ratio; and household head characteristics like age, education and wealth. The outcomes of the analysis confirm that microfinance generates income and smooth consumption. There is also increase in school children enrollment but reduction in women empowerment.

Expenditure per head in the household or per capita expenditure is another dimension for the measurement of impact of microfinance on poverty. Ifelunini and Wosowei (2012) examine the role of microfinance on poverty reduction among women entrepreneurs in South-South Nigeria. Data were collected from 400 respondents, comprising 200 beneficiaries and 200 non beneficiaries in eight local governments of the zone. Logit

model, Propensity Score Matching and Instrumental variable methods were used to analyse the data. Explanatory variables for the study include age, household size, education, marital status, business time and location of residence. The outcome of the study revealed that access to microfinance has positive impact on per capital expenditure of women entrepreneur; while places of residence and household size have negative impact on per capita expenditure; education has positive effect on the latter.

Health is another poverty dimension that can be used to assess the impact of microfinance loan. Mohindra and Haddad (2005) used conceptual framework backed with Sen's capability approach to assess the impact of participating in microfinance programme on the health status, particularly the women's welfare. It was hypothesized that increase in income as a result of microfinance loan participation can help to reduce the health hazards for women; as people in poverty are usually vulnerable to poor health. The study identified variables like access to safe drinking water, good sanitation, adequate housing, access to economic resources and access to public goods and services as some of the determinants of low health hazards. The study concludes that microfinance is a promise intervention programme to improve women capability in health. The more a woman participates in the programme, the greater is the propensity to achieve good health. Afrane (2002) also evaluated the impact of microfinance programme interventions on the beneficiaries in Ghana and South Africa. Variables like sales, assets, income, expenditure, water, toilet health, number of rooms occupied, housing; food/nutrition and education were used to measure the welfare impact of the loan beneficiaries sampled in Ghana and South Africa. Although the study considered the before and after the event, it

failed to include the control group (non-beneficiaries). This serves as constraint in comparing the counterfactual situation with the factual conditions of the target group. The study also gives less attention to family and religious matter. All this are considered in the present study which create another opportunity to fill the identified gap and make literature contribution in Sub Saharan Africa. Afrane (2002) concludes that microfinance programmes have succeeded in the improvement of the beneficiaries' welfare as small loans increased income within a short period of 8-12 months and the performance of women outweighs their male counterparts. This corroborates the findings of Pitt and Khandker (1996) which evaluates the impact of Grameen Bank and similar targeted credit programmes in Bangladesh. In this study, multipurpose quasi experimental household survey was conducted in 87 villages in rural Bangladesh. The findings revealed that as a result of participating in microfinance programme, there was improvement in income, welfare and assets position, consumption, children school enrolment; and women participants yield more impact on poor households than men.

In the process of impact evaluation of the microfinance loan on poverty reduction, the issue of selection bias of the beneficiaries should be properly controlled for in order to avoid inaccurate results. Supporting this view, Coleman (1999) investigates the impact of group lending in Northeast Thailand by using panel data with Tobit technique. The study compares the borrowers (treatment group) with non-borrowers (control group) before and after the event and considered variables like experience, sex, education, household worker, age, assets and household size. The findings show that the microfinance loans have little impact on the beneficiaries; there was no significant impact on assets holding,

there was negative impact of the loan on health status and the borrowers became worse off in debt because they borrow from another source to settle village bank debt. The study concludes that the loans were too small to be productive hence, the negligible impact on the borrowers' welfare.

Measuring the outreach and sustainability of microfinance loan has been considered as part of the evaluation of the efficiency impact of the loan (Morduch, 2000). Coleman (2006) carried out an empirical study on the outreach and impact of microfinance loan on the poor in Northeast Thailand. The study seeks to know who benefits from microfinance patronage and how much was the benefit. Variables like assets, credit-saving worthiness, wealth, savings, income, health and education status, household size, age, business assets and assets less debt were identified for the impact measurement. The study used survey method for borrowers and non-borrowers with Logit and Tobit regression analyses. The outcome of the study revealed that banks don't patronize the rural poor because of high risks and costs of small loans; also, the microfinance programmes do not reach the poor who are supposed to be their primary target but instead, the rich and influential committee members benefit from the services of the banks. Diagne and Zeller (2001) conducted an empirical research to determine factors responsible for the accessibility to formal and informal credit in rural Malawi and its impact on food security and income of participants. Data were collected from 404 households in 45 villages of five districts where four MFIs were operating. Variables identified for outcome illustration include assets, age, education and household size. The findings show that participants in microcredit end up in low income when compared with non-participants. There was no

significant impact of the loan on crop income, per capital income, food security and nutritional status of the participants. The study concludes that access to microcredit alone cannot serve as a "panacea" to poverty reduction but should be accomplished with social and economic infrastructural facilities that would provide good roads, health and education for human capital development.

As a response to Coleman (2006) and other researchers with similar assertions, Khandker and Samad (2013) conducted a study to verify whether the microcredit participants in Bangladesh are trapped in poverty and debt as earlier claimed by critics. A long panel data for 20 years (1990/91-2010/11) was analysed. The results revealed that microcredit participants were not trapped in debt or poverty. Instead, it was discovered that microcredit participants gained tremendously, more than non-participants, with increase in income; improvement in consumption, assets ownership and children schooling. In addition, the microcredit participants have higher household net worth and reduction in poverty and debt asset ratio. These views were further supported by similar study carried out by Khandker and Samad (2014) which investigates the dynamic effect of microcredit in Bangladesh. Sharing similar views, (Imai, Gaiha, Thapa, & Annim, 2012) investigated the impact of microfinance at Macro level. The study utilized cross-sectional data covering 48 countries in developing regions and 2003/2007 panel data covering 61 countries; extracted from Microfinance Information Exchange (2010) and World Bank (2011), to consider the Gross Domestic Product (GDP) per capita and share of credit in GDP. It was discovered that countries with high microfinance portfolio tend to have lower levels of poverty incidence. Also, the study confirms that microfinance

significantly reduces poverty at macro level; therefore, there is need to reinforce more funds from government and development finance institutions to MFIs. In general, the paper concludes that it is a mistake to assume that microfinance lacks the "magic" to conquer poverty, neither is it an overestimation that microfinance serves as a panacea for poverty reduction.

In Nigeria, empirical studies on impact of microfinance programmes on the welfare of their beneficiaries have yielded mixed results in recent times. For instance, Jegede Kehinde and Akinlabi (2011) evaluate the impact of microfinance loan on poverty alleviation in Nigeria and confirmed that the loan can increase the income and reduce poverty of the beneficiaries. Ofoegbu (2013) conducted study on the impact of microfinance in alleviating poverty in rural Nigeria. Variables like age, household size, education and experience/skill were identified for analysis. The result revealed that impact of microfinance on poverty was insignificant in view of high interest rates charged, low infrastructure and educational facilities in the rural areas. While Dauda (2015) examines the impact of microfinance on poverty and employment gender gap in Nigeria; and concludes that low income earners derive least benefits from microfinance banks' operation in Nigeria.

The above analysis confirms that microfinance activities have been categorized as an effective development intervention which plays a vital role in poverty reduction. Although researchers have made efforts to assess the impact of microfinance, there are still little solid empirical analyses on this subject matter particularly in the study area.

However, it can be observed from the above studies that most of them did not use the appropriate methods that take proper care of covariates/hidden variables to avoid bias and non-robustness of the outcome of the research. This thought is also shared by Snow and Buss (2001) who affirm that little has been done to assess the extent by which microcredit has changed the economic wellbeing of the poor and no solid evaluations of outcomes for many microcredit programmes implemented in sub- Saharan Africa. The view further points to the fact that microcredit will increase the wellbeing if the programme is well designed. And that more research is needed to evaluate the efficiency and economic wellbeing of the beneficiaries which is measured with specific designs.

This study explores the method of Propensity Score matching to conform to these views. Furthermore, Business worth is used as one of the variables that can influence the accessibility of microfinance loan to the poor. These are some of the contributions of the study to the existing literature.

3.8 Methodological Review of Literature on the Impact of Microfinance

This section reviews the literature on the methodologies that are usually used in impact studies.

3.8.1 Household Economic Portfolio Model (HEPM)

In the past three decades, efforts have been made to measure the impacts of microfinance programmes on the beneficiaries particularly on the poor. This is to assess the efficiency

and achievement of the programmes and determine the ways and methods of further improvement so that more can be achieved. To this end, different methods have been used for the impact assessment which initially covers the economic factors like income, expenditure on the household, consumption, assets acquired, investment and savings. This was later extended to social factors like health, education attainment and nutritional facilities. Furthermore, the impact assessment is extended to political factors like gender empowerment in form of household decision taking, participation in the community development and taking prominent role in the employment to the high cadre. One of the most comprehensive approaches of impact assessment is the Household Economic Portfolio Model.

HEPM was first developed and used by (Chen & Dunn, 1996) for the Assessing Impact of Microenterprises Services (AIMS) project of United States Agency for International Development (USAID). Furthermore, (Dunn & Arbucle, 2001) used HEPM approach to conduct impact studies for AIMS in Peru, India and Zimbabwe. The model takes a holistic measure on the impact assessment by considering the contributions of microcredit at three levels - the enterprise, household and individual. Assessing the impact of intervention programme like microfinance should accept the fact that the loan beneficiary can allocate the loan to his enterprises, or utilized for individual or household purposes. Therefore, the problem of fungibility should be considered in deciding the appropriate model to analyse the impact of a programme. Fungibility connotes the notion that the beneficiary may receive financial assistance from more than one source and there is possibility that the funds can be allocated to other uses. It becomes difficult for the

researcher to separate the use of microcredit and other available funds between households and enterprise (Chen and Dunn, 1996; Hulme, 2000; and Khalily, 2004). Previous impact studies that were targeted at either the enterprise; household or individual alone has yielded underestimated impact results as a result of fungibility of credit. Therefore, there is need for a conceptual approach that would encompass the enterprise, household and individual together in order to obtain realistic impact assessment results; in view of the fact that the activities of the household which comprises production, consumption and investment are jointly taken together.

HEPM is based on the premise that individuals in the household can make both centrifugal [individual, separate] and centripetal [joint] social and economic decisions. The model can be further used to classify households according to wealth, economic activities or social hierarchy. HEPM approach is based on the assumptions that: (1) the households differ in terms of social and economic security, (2) individuals within the household have different preference and interest in economic activities, (3) resources like credit are fungible and can be applied to various ways of consumption, investment and production, and (4) that men and women differ in decision making and preferences (Chen & Dunn, 1996).

When compared to other impact assessment (IAs) approaches on individual, household or enterprise, HEPM covers comprehensive impacts; but Hulme (2000) cautions that assessors should always endeavour to keep the number of the variables used to a

manageable level to avoid the risk of comprehensive method that would render the data quality and the relevance of their results useless.

Generally, Hulme (2000) classified microcredit impact approaches into three paradigms – Scientific, Humanity and Participatory Learning and Action (PLA). The scientific approach involves the use of comprehensive econometric method and requires large survey sample size which makes it to be costly. The humanity approach is based mainly on the qualitative method with the use of personal interview. And the assessor has the option to use either quantitative or qualitative approach to collect data for PLA which can be analysed with simple statistical method. However due to strengths and weaknesses of each of the methods of impact assessment, Hulme (2000) suggests the use of multiple approach rather than single method that will exhibit the weaknesses of such approach.

The common problems usually associated with microcredit impact studies are fungibility, selection bias and attribution. Using panel data can minimize the problems of selection bias and attribution while fungibility is not a problem under HEPM (Khalily, 2004). These qualities make the HEPM approach to be attractive to the present study.

3.8.2 Difference –in- Differences (DID) Approach

In recent times, the Difference –in- Differences (DID) approach has become a popular method for estimating the impact of intervention programmes for non-purely experimental data (Athey & Imbens, 2006)**.** In view of the fact that it takes some time for the impact of a programme to be manifested on the participants, the observed outcomes

may not only reflect only the effect treatment but influenced by other observed and unobserved factors like individual capability and effect of other government policies. It is therefore expedient to remove such influence in order to estimate the real impact of the programme event. The DID method is designed to resolve such problems by comparing the individuals who did not undergo the same treatment but have the same attributes with the treated group and then deduct the difference in the outcome variables of control individuals over time from the difference of the treated individuals in order to estimate the impact.

Some recent studies on the impact of microcredit programmes based on DID approach have used Panel data. For instance, Khandker (2005) used panel data to assess the impact of microcredit programme in Bangladesh. The findings revealed that microcredit significantly reduce poverty among the poor participants within the rural economy in Bangladesh. Although panel data has its peculiar problems in estimation, it offers some remarkable advantages over cross-sectional data in evaluating the impacts of microfinance. For instance, it helps to analyse the dynamics of the effects of microfinance loan over time (Khandker & Samad, 2014). It is expected that panel data models are reliable in the estimation of impact of programme by 'differencing out the effect of unobserved factors' (Li, 2010). In as much as it is good to control for unobserved effects by differencing the panel data in two separate years; collecting such panel data is a difficult task because of the time constraints and costs involved. In the first place, it is easier to collect a single cross section, particularly for individuals, than to collect set of panel data. Consequently, the latter involves the collection of data through

a survey and keeping track of the individual in order to carry out the second survey as a follow-up. Locating people for the follow-up survey is usually tedious and difficult. Even for units such as firms, it may be impossible to relocate some firms because some might have merged with other companies or wound up their businesses. To solve this problem, there would be need to use large cross section data (Wooldridge, 2009 :459).

3.8.3 Retrospective Analysis of Fundamental Events Contiguous to Treatment (RETRAFECT)

Realizing the rigorous steps involved in collecting multi cross- sectional data to build up panel data, McIntosh, Villaran and Wydick (2011) develop the methodology called Retrospective Analysis of Fundamental Events Contiguous to Treatment (RETRAFECT). This methodology is popular in finance literature under the "event studies" which are commonly used to ascertain the impact of Mergers and Acquisition (M & A) on the stock prices.

RETRAFECT methodology enables the measurement of welfare changes due to a treatment like obtaining microfinance loan. The method is based on a single cross-sectional survey in which the questions particularly inquire about the fundamental events in the history of the respondents. These basic essential events are paramount in the history of the household and are easily remembered because they are very important to the upliftment of the household's wellbeing. Therefore questions relative to such events can enable the researchers to create a "retrospective" panel data set for the measurement of the impact of an intervention programme like microfinance. This type of methodology

on event study as proposed by McIntosh *et al*. (2011) supports the views of Allison (1984) in the monograph titled "Event History Analysis Regression for Longitudinal Event Data". In essence, analyzing the impact of intervention event like microfinance in not so distant time to the period of treatment, enable the use of statistical tests that can clarify changes in the variables of household welfare which occur after the treatment. This methodology stems the high costs and time consumed when taking several rounds of survey over a substantial long period of time before adequate data could be collected for panel data.

RETRAFECT can be used to trace out the effective changes in the welfare variables of households. One of the notable practical demonstration of the event study methodology in microfinance impact analysis is that of McIntosh *et al*. (2011). The study carried out household survey that established a historical retrospective panel of fundamental events. These events are defined as discrete, unforgettable and important. According to the authors, to make the methodology effective, the events should not be easily forgettable. A similitude to this assertion is to carry out study on the effect of a pre-natal health programme on miscarriage and infant mortality. The respondents could accurately recall the event of miscarriages, births and deaths of children because they are usually unforgettable events to any parent; rather than on incidents of minor domestic accident of children.

Borrowing from MacKinlay (1997) event studies where the effect of events such as mergers are observed on stock prices, McIntosh *et al*. (2011) used RETRAFECT to

survey 1,672 household beneficiaries of microfinance in Guatemala, Ghana and India. The study examines the effect of the credit facility on the improvement of their welfare. Specifically, the study analyses the changes in housing improvement, such as, walls, roofs, floors, electricity installation and toilets; likewise other consumable durable goods like purchase of stoves, refrigerators, televisions, bicycles and cell phones. The findings revealed that the impact is relatively modest. The major contribution of the study is the methodology of the survey. In designing questionnaire for the present study, the principles of RETRAFECT were followed; mainly because it does not involve high cost and time consuming associated with multiple cross-sectional surveys.

3.9 Literature Gap

The above literature review is able to identify the literature gap for this research as follows:

It was revealed that the World's poorest region (Sub-Saharan Africa) has not been given adequate attention in terms of research on poverty (Ssewamala, *et al*. 2010). It is also disturbing that development economists still know little about the possible efficiency of microfinance activities in reducing poverty (khandker, 2005). While the records still show that most of the studies on poverty are based on Asia and Latin America at the neglect of African countries. The few available studies from Africa are concentrated on the urban sector at the detriment of the rural areas which harbour majority of the poor.

It can also be deduced that most of the empirical studies reviewed above did not consider business worth as an important factor that can influence the accessibility of microfinance loan to the rural poor.

In addition, most of the studies reviewed did not use the appropriate methods that would take care of selection bias and make the results more robust (Snow & Buss, 2001). The above identified gap has made this study appropriate and timely to use realistic data and comprehensive methodology to analyse the factors that influence accessibility of the rural poor to microfinance loan and the impact of the latter on poverty alleviation. This would be a major contribution to literature particularly in the study area.

3.10 Summary

Historical review, theoretical review, empirical review and methodological review are used in this chapter to present the views of the researchers on the subject matter. It is desirable to understand the causes of poverty through theories before proffering necessary solutions to solve the problem. The historical review of literature from Adam Smith's "Wealth of Nations" to classical, neoclassical, Keynessian and neo- Keynessian economists affirm that poverty is a development concept. Poverty is multidimensional, it therefore requires multiple solutions. Capability Approach Theory with its pragmatic Multidimensional Poverty Index and Household Economic Portfolio Model fit into this task of multiple dimensions and are found appropriate for this study. The empirical review of literature reveals that microfinance programmes are yet to be fully accessed by the rural poor and the results of the studies on their impacts are mixed. Poverty means

deprivation in all ramifications and requires complex policies and programmes. Efforts to alleviate poverty can only succeed where the poor is provided with economic, social and welfare facilities. Although the use of microfinance programmes as development strategy for poverty alleviation have attracted the attention of scholars; but the comprehensive impact studies with the appropriate methodology that would solve the problems of selection bias and fungibility are still inadequate in the developing countries like Nigeria. This is the gap that the current study has attempted to fill in literature.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.0 Introduction

This chapter describes the empirical models used to estimate the factors that determine the accessibility of microfinance loan by the rural poor in Nigeria and the impact of microfinance loans on poverty alleviation. The methods of data collection in the study area are also presented together with the population characteristics, the sampling techniques, research instruments used and methods of data analysis.

4.1 Accessibility of Microfinance Loan

The decision to obtain microfinance loan or not has been described as a free will (Pitt & Khandker, 1996; Ashraf & Ibrahim, 2014). This implies that the poor can either avail him/herself of the opportunity to join microfinance programmes or not.

Logit and probit model are the binary choice models usually used to analyse the accessibility of households to credit in literature (Xia, Chistopher, & Baiding, 2011). Based on the fact that the dependent variable for the model of this study is dichotomous, it would not be appropriate statistically to use linear regression of ordinary least squares (Green, 2012: 681). To this end, the logit model is considered as most efficient to estimate the model since logit model possesses the ability to approximate the normal

distribution very well and for the fact that it exhibits analytical convenience (Xia, *et al*., 2011).

In order to identify the factors that determine the accessibility of microfinance loan in the study area, the logistic regression model was explored. Following Gujarati and Porter (2009: 555) in the estimation of Logit model, the natural log (log) of the equation is as follows:

$$L_i = \ln(\frac{Pi}{1-Pi}) = Z_i = \beta_1 + \beta_2 X_i + \varepsilon_i \quad (4.1)$$

Where Pi shows the probability of loan accessibility, β_1 and β_2 are the parameters, X_i stands for the independent variables and ε_i represents the error term.

This implies that L, the log of the odds ratio, is linear in both X and the parameters.

It should also be noted that as P varies from 0 to 1, Z goes from - ∞ to + ∞.

In the same vein, model for this study can be specified as Model 1, Microfinance loan accessibility.

Model 1: Microfinance loan Accessibility

$$L_i = \ln(\frac{P_i}{1-P_i}) = \beta_o + \beta_1 AG_{1i} + \beta_2 BW_{2i} + \beta_3 SK_{3i} + \beta_4 DPry_{4i} + \beta_5 DHiSc_{5i} + \beta_6 DND_{6i} + \beta_7 DHDUni_{7i} + \beta_8 Dmarr_{8i} + \beta_9 ASS_{9i} + \beta_{10} HEST_{10i} + \beta_{11} SL_{11i} + \beta_{12} INC_{12i} + \varepsilon_i \quad (4.2)$$

where, β_o is intercept, βs are the coefficients and ε_i is an error term. P_i is a binary Dependent variable: P_i=1 if the person is Microfinance loan beneficiary; P_i =0 if the person is Microfinance loan non-beneficiary (but eligible applicant).

Following are the Independent variables used in the logit model:

AG = Age of the head of household (in years);

BW = Business worth: total assets less total liabilities;

SK = Skill in Entrepreneurship: experience of the household head in years;

DPry = Household head's education dummy for primary education;

DHiSc = Household head's education dummy for High School;

DND = Household head's education dummy for National Diploma;

DHDUni = Household head's education dummy for Higher Diploma and University degree;

Dmarr = Marital Status dummy for married household head;

ASS = Household acquired assets;

HEST = Health status of household head;

SL = Standard of Living of household;

INC = Monthly income of household head.

The model, which has microfinance beneficiaries or non-beneficiaries as its dependent variable aims at predicting the factors that determine access to microfinance loan by the poor in South-West Nigeria. To this end, specific characteristic variables of the respondents like age, gender, education level and household size were included in the explanatory variables. This goes in line with some previous literature on the subject matter that included such demographic variables to explain the dependent variable (for

example, Evans *et al*., 1999; Arun, *et al*, 2006; Ashraf and Ibrahim, 2014; Balogun and Yusuf, 2011; Obisesan and Akinlade, 2013).

It has been affirmed that working age (from 18 to 55 years old) can have positive influence on the accessibility of microfinance loan by the poor (Arun *et al*, 2006; (Phan, 2012). It is also hypothesized that variables like marital status, experience/skill in business, level of education and income determine the accessibility of credit (see for example, Arun *et al*, 2006; Ashraf and Ibrahim,2014; Balogun and Yusuf,2011; Obisesan and Akinlade,2013, Yusuf and Shirazi, 2013). It is expected that household assets, good health status and household's standard of living should serve as positive determinants of accessibility to microfinance loan. Other things being equal, the more one possesses business assets and experience, the more opportunity one has to obtain microfinance loan and pay back without default.

4.2 The Impact of Microfinance Loan on Poverty Alleviation

This section enumerates the importance of impact measurement for intervention programme like microfinance. Methods adopted for impact measurement are further discussed before the specifications of the empirical models. The section is grouped into three major parts. In 4.2.1, the measuring tools for poverty incidence are discussed while 4.2.2 focuses on difference-in-differences (DID) method. The third part 4.2.3 treats the model specifications for impact estimation.

4.2.1 Measuring the Poverty Alleviation

The most ideal way to measure the impact of microfinance programme is to confirm from the beneficiaries if or not they experience gains and improvement as a result of their participation in such programme (Coleman, 2001). That is, to confirm between the two groups - the treatment and the control groups .According to Hulme (2000), the essence of measuring the impact of a programme is to assess the influence of the intervention on the behaviours and practices of the recipient; to assess what is being achieved and how the achievement can be improved upon. This will justify the desired outcome of the "agents" (such as donor agencies, Microfinance Institutions, policy makers) and classify those who have experienced the intervention as against those who did not experience it. For instance, in the case of microfinance; provision of microcredit and other technical services to the clients is expected to change the performance of the microenterprise of the client. In such a credit intervention, the impact assessment is expected to evolve changes in the assets level, staff enrollment, profit or the sales revenue of such enterprise (Kessy, 2013). Invariably, this will lead to changes in household income which also determines the household economic security. This eventually leads to changes in the levels of economic and social opportunities.

In order to evaluate the impact of microfinance, this study measures the impact of microfinance on Poverty alleviation. Historically, microfinance programmes were established in order to elevate the poor and the low income earners above the poverty line; hence, the study measures the extent of achievement of this objective in the study area. Drawing antecedent from a call made by Amartya Sen (a Nobel Laureate in

Economics) that there is need for proper research that will take multidimensional approach to measure poverty and deprivation, Alkire and Santos, (2010) adopt a new Multidimensional Poverty Index (MPI).

Their study that covers 104 developing countries, including Nigeria; considers about 78 percent of the world's population and examines the multidimensional poverty through the use of household surveys. The MPI connotes an Index of acute multidimensional poverty. It reveals more deprivations that affect the poor besides income poverty. Suffice to say that it complements income-based measurement of poverty. In this development, three dimensions comprising health, education and standard of living are identified by using 10 indicators as stated below. The methodology, which followed that of (Alkire & Foster, 2009; Ibrahim & Alkire, 2009), was used to construct aggregate measure of household poverty. The dimensions and indicators as adopted from Alkire and Santos, (2010a, 2013) are: Health (child Mortality and nutrition), Education (years of Schooling and child Enrolment) and Standard of Living (electricity, drinking water, sanitation, flooring, cooking fuel and assets).

Graphically MPI can be shown as follows:-

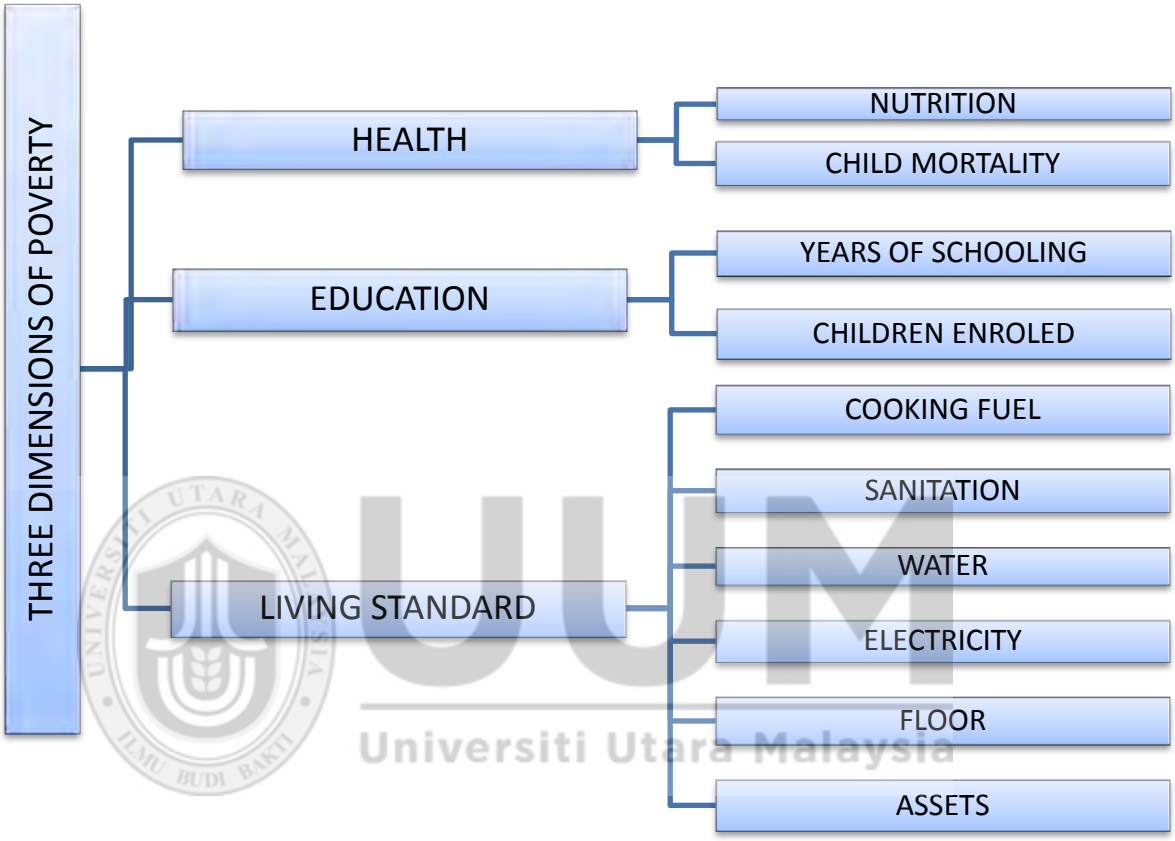

Figure 4.1
Dimensions and Indicators of MPI as adopted from OPHI (2013)

This study adapted most of the MPI variables in order to assess the extent of poverty alleviation as a result of the intervention of Microfinance programme. By this measure, it is expected that the impact of microfinance loan can be shown more clearly.

Measuring the effectiveness or impact of a programme on its beneficiaries is very essential in order to confirm whether the programme needs adjustment, additional

funding or is able to achieve the objectives upon which it was established. Also, measuring the impact of a programme gives the opportunity of evaluating the extent by which such programme has influenced the outcomes of subjects studied (Nguyen, 2007); for example measuring the impact of microfinance on poverty in this study. Some of the recent studies on the impact of microfinance loan on poverty alleviation use conventional econometric methods like difference-in –difference estimators in order to surmount the problem of selection bias (Gaiha & Kulkarni, 2013). In this study, difference-in-differences (DID) methodology is used to assess the impact of microfinance loan on poverty dimensions.

4.2.2 Difference in Differences Estimation Method

Difference-in-differences methodology can be used to measure the impact (effect) of a programme on population samples. To know the actual difference, two groups (control and treatment) are usually involved at different periods (before and after the programme implementation). Hence in this study, the sample is classified into four groups: the microfinance loan beneficiaries (treatment group) before obtaining the loan and after the programme implementation; likewise, the non-beneficiaries (control group that were also qualified but could not obtain the loan) were considered before their application for the loan and after the programme was implemented. The study adopts "before and after" approach for both the treatment and control groups in order to solve the problem of counterfactual situation of the loan beneficiaries and non-beneficiaries as explained by Heckman, Ichimura, & Todd, (1998). This approach is necessary since there was no baseline data for the study to know the situation of the respondents before the loan

period. This situation therefore makes recall memory technique the suitable option with the assumption that the respondents would be able to recall their situation fairly well before the microfinance loan application.

Following Wooldridge (2009:453-454) and Green (2012:156-157), the treatment group can be named T and C for the control group. Let dT equal one for the treatment group T and zero otherwise. Then let d2 connote a dummy variable for the after programme implementation time period, the equation of interest can be stated as:

$$y = ß_0 + \lambda_0 d2 + ß_1 dT + \lambda_1 d2.dT + \text{other variables}, \quad (4.3)$$

where y is the outcome variable of interest (poverty alleviation in this study). λ_1 measures the effect of the programme. Excluding other factors in the regression, λ_1 will be the difference-in-differences estimator:

$$\lambda_1 = (\bar{y}_{2T} - \bar{y}_{2C}) - (\bar{y}_{1T} - \bar{y}_{1C}) \quad (4.4)$$

where the bar connotes average, the first subscript connotes the period(time) and the second subscript connotes the group. Other variables are defined in the models.

Table 4.1 depicts the overall set up of difference-in-differences. In the table, the parameter λ_1, usually named the average treatment effect (measures the effect of microfinance programme on the average outcome of y), can be estimated in two ways viz:

(A) Compute the differences in averages between the treatment (beneficiary) and control (non-beneficiary) groups in each time period, and then difference the results overtime like what is shown in equation 4.4.

(B) Do the computation to get the change in averages over time for each of the treatment (beneficiary) and control (non-beneficiary) groups, and then find the difference of these changes. That is, simply write $\tilde{\lambda}_{1=}(\bar{y}_{2T} - \bar{y}_{1T}) - (\bar{y}_{2C} - \bar{y}_{1C})$. Fundamentally, the estimate $\tilde{\lambda}_1$ does not depend on how the difference is done but can be shown by simple rearrangement.

Table 4.1
Description of the Difference-in-Differences Estimator

	Before	**After**	**After – Before**
Control	$ß_0$	$ß_0+\tilde{\lambda}_0$	$\tilde{\lambda}_0$
Treatment	$ß_0+ß_1$	$ß_0+\tilde{\lambda}_0+ß_1+\tilde{\lambda}_1$	$\tilde{\lambda}_0+\tilde{\lambda}_1$
Treatment - Control	$ß_1$	$ß_1+\tilde{\lambda}_1$	$\tilde{\lambda}_1$

Source: Adapted from Wooldridge (2009:454)

The difference-in-differences method has been described as one of the essential tools used for applied research in economics to measure the impacts of public interventions and other related treatments of interest on some important outcome variables (Abadie, 2005). It is based on the idea of using natural experiment to assess treatment effect where the use of truly experimental data is not feasible. The estimator works on the fact that in a situation where a part of the population is exposed to a treatment, a control group can be used to measure the temporal difference in the outcome that is not based on the effect of the treatment. Further explanations on DID is presented in Appendix A.

The problem of selection bias in treatment/control framework in impact assessment can be hardly eliminated in non-experimental data particularly in microfinance loan. This is based on two factors. One is the self-selection of the households into the programme; and two is the fact that the operators of the bank based their selection on unmeasured factors which are devoid of random placement of the programme. This gives rise to selection bias in impact estimation (Coleman, 1999). One of the possible methods that can be used to solve the problem of selection bias is the Propensity Score Matching (PSM). This method is used to match the individuals from treatment group with those in the control group who have similar observable characteristics that can be used to discover the impact of programme intervention; like microfinance loan.

PSM can be used to measure the impact of treatment of a phenomenon on the treated group that possesses different characteristics. The method is useful in measuring observable variables with different dimensions because it provides "a natural weighting scheme that yields unbiased estimates of the treatment impact " (Dehejia & Wahba, 2002). Although PSM relies on observable variables to caution the effect of selection bias, it is also reliable in reproducing the treatment group among the non-treated by re-establishing the experimental conditions in a non-experimental setting. The method serves as a means for marching different groups in accordance with their mutual relationships. Unlike regression, PSM does not assume linear relationships between the covariates and the result of interest (like the microfinance loan in our case) (Foster, 2003).

The PSM method plays vital role in cause effect treatment estimation. Researchers have recorded some merits for this method. According to Lechner (2002), the matching algorithm can be commended for its simplicity and ability to reduce bias.

In their own contribution, Rosenbaum and Rubin (1983) adduce the following prominent advantages to PSM. First, the method enables the relatively unsophisticated scholar to appreciate the system of matching the treated and control groups with simple analyses that adjust the necessary variables. Second, the mechanism of the method magnifies the process of reducing the variance of the estimated average treatment effect in the matched samples than in the random samples. The decrease in the variance follows the reduction in the x variables of the treatment and the control means. Thirdly, it is also affirmed that adjusted model based on matched samples is more robust to departures from the assumed form of the underlying model than that of random samples because there is less reliance on the extrapolations of the model. Thus, the present study uses PSM to evaluate the selection bias in the estimated models. Further explanation and structure of PSM are presented in Appendix B.

4.2.3 Model Specifications for Impact Estimation

In order to achieve the objectives of this study, the conceptual model will be in line with Capability Approach theory and other related theories as earlier specified. The methodology of this research project is tailored towards the achievements of its objectives as follows:

(i) To achieve objective one, a logit model is used to estimate the factors influencing the accessibility of microfinance loan in their area of operation (Model 1).

(ii) To achieve objectives two and three, the difference-in-differences method is used to determine the impact of microfinance loan on poverty alleviation in the study area, and using the PSM to evaluate the potential selection bias. This study evaluates the impact of Microfinance loan on rural poverty reduction; taking into cognizance the various dimensions like Poverty alleviation (Model 2), Health status (Model 3), Standard of living (Model 4), Expenditure per head (Model 5) and Income of the household head (Model 6).

Model 2: The Impact of Microfinance loan on Poverty Alleviation

The concept of poverty reduction has attracted the attention of some scholars. Empirical studies have identified some variables like inflation, age, household size, health problem, lack of savings and inadequate assets as the major causes of poverty (Chaudhry,2009; Roslan and Abd Karim,2009; Taylor and Xiaoyun, 2012; Yusuf, Shirazi, & MatGhani, 2013).

In order to evaluate the variables that determine Poverty alleviation together with microfinance loan in the study area, the Binary logistic regression model was explored with DID approach.

Model for this study can be specified as follows:

$$L_i = \ln(\frac{P_i}{1-P_i}) = \beta_o + \beta_1 MFS_{1i} + \beta_2 HEST_{2i} + \beta_3 SL_{3i} + \beta_4 EPH_{4i} + \beta_5 TiS_{5i} +$$

$$\beta_6 AG_{6i} + \beta_7 HHS_{7i} + \beta_8 Ti_{8i} + \beta_9 DPry_{9i} + \beta_{10} DHiSc_{10i} + \beta_{11} DND_{11i} +$$

$$\beta_{12} DHDUni_{12i} + \beta_{13} Dmarr_{13i} + \beta_{14} DDWid_{14i} + \varepsilon_i \qquad (4.5)$$

P_i is a binary Dependent variable. P_i=1; if the person is not poor and P_i=0; if the person is poor. The World Bank's Poverty line Index set at $1.25 per day is used as a benchmark to measure the level of poverty (Chen & Ravallion, 2008). That is, those whose income per day is below the Index were regarded as poor and those people that earn $1.25 and above per day were categorized as non-poor.

Independent variables consist of:

MFS = Microfinance loan Status: 1 for Beneficiary and 0 for Non-Beneficiary;

HEST = Health Status;

SL = Standard of Living;

EPH = Expenditure per Head;

TiS = DID estimator of the effectiveness of microfinance loan

AG = Age of the Household head;

HHS = Household size;

Ti = Dummy variable for the period: 1 for After and 0 for Before;

DPry = Education dummy for primary education;

DHiSc = Education dummy for High school;

DND = Education dummy for National Diploma;

DHDUni = Education dummy for Higher Diploma/University degree;

DMarr = Marital Status dummy for married parent household;

DDWWid = Marital Status dummy for single parent household.

It is hypothesized that microfinance loan increases the poverty alleviation (Khandker, 2005; Okpara, 2010). It is expected that the higher the educational attainment of the household head, the lower the poverty level in the household (NBS, 2007); while increase in age can make the household head to be poor particularly at their terminal working age (NBS, 2007). Poverty incidence also used to increase with the increase in household size as this is always calculated on per capita expenditure (NBS, 2007). The health status, standard of living and Expenditure per head are expected to reduce the poverty status or increase poverty alleviation; other things remain constant.

Model 3: The Impact of Microfinance on Health Status

Health serves as one of the important dimensions of poverty (Alkire & Santos, 2013). Poverty thrives in the absence of good health as this can further deny the capability of poor from obtaining loan that can contribute to poverty reduction (Jha & Dang, 2010).

When a dependent variable is ranked into categories that are more than two, that is, ordinal variable, the exact distance between the adjacent categories is difficult if not impossible to know. To use linear regression for the estimation of such ordinal dependent variable would yield wrong outcomes. The best alternative therefore is the Ordered Regression model which is explicitly designed for ordinal outcomes (Green, 2012:682).

To analyse the impact of Microfinance loan on Health status, ordered logit model is explored with DID approach. Ordered logit, which provides means to exploit the ordering information, is appropriate to analyse the dependent variable with more than two ranked items. The model was introduced to the social science by McKelvey and Zavoina in 1975 and is usually referred to as "underlying latent variable with observed, ordered categories" (Long, 1997: 116).

The Ordered logit model is a proportional odds model that can be interpreted as the odds ratios for cumulative probabilities. In line with Long (1997:138); the cumulative probability that the outcome is less than or equal to *m* can be derived as:

$$\Pr(y \leq m/x) = \sum_{j=1}^{m} Pr(y = j/x) \text{ for m } = 1.\text{J} - 1 \qquad (4.6)$$

To find the odds that an outcome is *m* given the following:

$$\Omega_m(x) = \frac{\Pr(y \leq m/x)}{1 - \Pr(y \leq m/x)} = \frac{\Pr(y \leq m/x)}{\Pr(y > m/x)} \qquad (4.7)$$

For instance, we could calculate the odds of very poor or poor health status (that is ≤2) versus excellent or good health status.

In the case of ordered logit model, simple equation can be derived to solve for odds of an outcome being less than or equal to *m* versus being greater than *m* like:

$$\Omega_m(x) = \frac{\Pr(y \leq m/x)}{\Pr(y > m/x)} = \exp(\mathcal{T}_{m - x\beta}) \qquad (4.8)$$

By taking the log results in the logit equation, we have:

$$ln\ \Omega_m(x) = \mathcal{T}_{m - x\beta} \qquad (4.9)$$

In the same vein, our model can be expressed as follows:

$$ln\,\Omega_m(x)_i = \mathcal{T}_{m-x\beta} = \beta_o + \beta_1 MFS_{1i} + \beta_2 NUT_{2i} + \beta_3 HHS_{3i} + \beta_4 BW_{4i} +$$

$$\beta_5 HHDS_{5i} + \beta_6 HOA_{6i} + \beta_7 AG_{7i} + \beta_8 TiS_{8i} + \beta_9 Ti_{9i} + \beta_{10} DPry_{10i} +$$

$$\beta_{11} DHiSc_{11i} + \beta_{12} DND_{12i} + \beta_{13} DHDUni_{13i} + \varepsilon_i \qquad (4.10)$$

In this model, the dependent variable is Health Status which is ranked into four items (1=very poor, 2= poor, 3= good and 4= excellent).

The model has the following as independent variables:

MFS = Microfinance loan Status: 1 for Beneficiary and 0 for Non-Beneficiary;

NUT = Nutrition of Household members;

HHS = Household size;

BW = Business Worth of the Household head;

HHDS = Household members' disease;

HOA = Hospital Admission of Household members;

AG = Age of the Household head;

TiS = DID estimator of the effectiveness of microfinance loan;

Ti = Dummy variable for the period: 1 for After and 0 for Before;

DPry = Education dummy for primary education;

DHiSc = Education dummy for High school;

DND = Education dummy for National Diploma;

DHDUni = Education dummy for Higher Diploma/University degree.

It is expected that improvement in nutrition, Business worth and level of education as a result of influence of microfinance loan will increase the Health Status, a dimension of

Poverty Alleviation (Abdel-Baki, 2012; Cuong *et al*., 2010; Kalirajan & Singh, 2009; N. Smith, 2010). The more balanced the nutrition the healthier one is and the less will be the hospital admission and family disease that would contribute to poverty. It is also expected that education can create awareness on family planning that can reduce the family size and eventually reduce household poverty (National Bureau of Statistics, 2006).

Model 4: The Impact of Microfinance on Standard of Living

The standard of living has been conceptualized as the human well-being which is essentially the economic (material) well-being. The economic well-being comprises household income, consumption and wealth (OECD, 2013). Research has also indicated that household energy consumption (electricity) serves as an important measure of standard of living of residents in a country (Joyeux & Ripple, 2004).

In this study, Household expenditure (Current consumption) is used as a proxy for standard of living. Current consumption, which can be defined as household expenditure together with benefits derived from durable goods, should serve as a better proxy for standard of living than income. Consumption here is defined as the household's expenditure.

Current consumption can be regarded as a better option for a household's long term living standard than current income. This is mainly due to some reasons; prominent among which is that income and consumption will usually differ because the later can include borrowing or saving which the household can benefit from their accumulated

durable goods. Also, it has been argued that income from poor households is usually understated. This gives the consumption a better chance to be used as proxy for standard of living than income (Brewer, M. & O'Dea, 2012).

Blundell and Preston (1996) also note that consumption expenditure describes more accurately the expected lifetime resources than income. Based on theory, other researchers also argue that using consumption to measure household welfare portrays more accurate judgment than income. Meyer and Sullivan, (2003, 2012,2013**)** argue that using income to measure standard of living can underestimate their welfare but consumption measure through spending tend to be more accurate. It is therefore ideal to measure standard of living through consumption rather than income, particularly in developing countries.

Generally, consumption is easier to measure than income. While consumption is continuous over time, income is received periodically; even during survey, respondents are usually reluctant to disclose their actual income to enumerators. It is based on these evidences that expenditure is used as proxy for standard of living in this study.

Multiple regression model with DID estimator are used to estimate the impact of microfinance loan on the household expenditure. The Dependent variable is the monthly expenditure of the household head on the members of the household (Exp). The model is expressed as follows:

$$Exp_i = \beta_o + \beta_1 MFS_{1i} + \beta_2 CkFuel_{2i} + \beta_3 Elect_{3i} + \beta_4 FlrMat_{4i} + \beta_4 ASS_{4i} + \beta_5 HHS_{5i} + \beta_6 Mal_{6i} + \beta_7 AG_{7i} + \beta_8 TiS_{8i} + \beta_9 Ti_{9i} + \beta_{10} DDWid_{10i} + \beta_{11} DPry_{11i} + \beta_{12} DHiSc_{12i} + \beta_{13} DND_{13i} + \beta_{14} DHDUni_{14i} + \varepsilon_i \quad (4.11)$$

where,

MFS = Microfinance loan Status: 1 for Beneficiary and 0 for Non-Beneficiary;

CkFuel = Household cooking fuel material;

Elect = Household's affordability of Electricity power;

FlrMat = Type of material used for flooring household house;

ASS = Household Assets

TiS = This is the DID estimator to explain the effectiveness of microfinance loan before and after the treatment;

HHS = Household size;

Mal = Dummy variable for Gender: Male=1, Female=0.

AG = Age of the Household head;

Ti = Dummy variable for the period: 1 for After and 0 for Before;

DDWid = Marital Status dummy for single parent household;

DPry = Education dummy for primary education;

DHiSc = Education dummy for High school;

DND = Education dummy for National Diploma;

DHDUni = Education dummy for Higher Diploma/University degree.

In equation (4.11), expenditure is used as proxy for Standard of living (SL), which is considered as Dependent variable. It is expected that obtaining microfinance loan will have positive impact on the Standard of Living. The level of education of household head is expected to have positive impact on standard of living because educated people have more opportunities to cross the poverty huddle than illiterates (Tang, 2002). Also improvement in household equipment, house materials and assets usually signifies increase in Standard of living. It is therefore expected that the more the quantity and quality of assets, the more will be the household expenditure/consumption which will enhance the standard of living; while the size of the household can have negative relationship with the living standard (NBS, 2006, Chaudhry, 2009; Roslan & Abd Karim, 2009; Taylor, Xiaoyun, & South, 2012; Yusuf,M B O, Shirazi N S, 2013a).

Model 5 The Impact of Microfinance on Expenditure per head in Household.

Per capital Income or expenditure is used as benchmark indicators to measure the level of poverty in the developing countries where MFIs operate (Meyer, Nagarajan, & Dunn, 2000) . Expenditure per head (EPH) in the household shows the amount that is spent on each member of household in a month. This amount is another dimension of poverty stating the consumption ability of each member of the household. EPH is calculated by dividing the household expenditure by the number of members of the household.

The model is estimated by multiple regression technique with DID approach and stated as follows:

$$EPH_i = \beta_o + \beta_1 MFS_{1i} + \beta_2 INC_{2i} + \beta_3 BW_{3i} + \beta_4 ASS_{4i} + \beta_5 HOA_{5i} + \beta_6 Mal_{6i} + \beta_7 TiS_{7i} + \beta_8 Ti_{8i} + \beta_9 DDWid_{9i} + \beta_{10} Dmarr_{10i} + \beta_{11} DHDUni_{11i} + \varepsilon_i \quad (4.12)$$

The Dependent variable is the Expenditure per head in the household (EPH). The Independent variables are defined as follows:

MFS = Microfinance loan Status: 1 for Beneficiary and 0 for Non-Beneficiary;

INC = Monthly income of the household head;

BW = Business Worth of the Household head;

ASS = Household Assets

HOA = Hospital Admission of Household members

Mal = Dummy variable for Gender: Male=1, Female=0.

Ti = Dummy variable for the period: 1 for After and 0 for Before;

TiS = This is the DID estimator to explain the effectiveness of microfinance loan before and after the treatment;

DDWid = Marital Status dummy for single parent household;

Dmarr= Marital Status dummy for married household;

DHDUni = Education dummy for Higher Diploma/University degree

It is expected that increase in Expenditure per head as a result of influence of microfinance loan will increase poverty alleviation or reduce poverty status. Also, increase in income can increase the per capita expenditure. While the increase in business worth of the household head is expected to increase the expenditure per head, additional

members of single parent or married households can upshoot the expenditure per head other things remain the same. Being a male head of household is expected to increase the expenditure per head than the female counterpart, other things remain constant. As the increase in household member admission into hospital would increase the expenditure per household head, improvement of household's head education to higher level is expected to increase the household's expenditure when other factors remain fixed.

Model 6: The Impact of Microfinance loan on the Income of Household head

Income as a dimension of poverty has been used as a reliable measure of impact of microcredit on the poor household. For instance, Coleman (2006) suggests the use of income as a dependent variable to measure the impact of microcredit on poor household. Ravallion (1996) also explore the money-metric utility to consider income and inequality in poverty measurement and concludes that low income is likely to be the cause and effect of poor health status and education attainment.

In his study of the impact of microfinance on rural Area in Pakistan, (Asghar, 2012) affirms that Microfinance can serve as a strong tool to increase the income of the poor and education of his household. He concludes that income generated from the credit of microfinance will reduce poverty and increase both economic and social well beings.

In this study, multiple regression model with DID method are used to measure the impact of microfinance loan on income. The Dependent variable for the model is monthly Income of the household head (INC). The model specification is presented as follows:

$$INC_i = \beta_o + \beta_1 MFS_{1i} + \beta_2 HHEmp_{2i} + \beta_3 ASS_{3i} + \beta_4 HHS_{4i} + \beta_5 Mal_{5i} + \beta_6 AG_{6i} + \beta_7 SL_{7i} + \beta_8 TiS_{8i} + \beta_9 Ti_{9i} + \beta_{10} DDWid_{10i} + \beta_{11} Dmarr_{11i} + \beta_{12} DPry_{12i} + \beta_{13} DHiSc_{13i} + \beta_{14} DND_{14i} + \beta_{15} DHDUni_{15i} + \varepsilon_i \quad (4.13)$$

where:

MFS = Microfinance loan Status: 1 for Beneficiary and 0 for Non-Beneficiary;

HHEmp = Number of household members employed;

ASS = Household Assets;

HHS = Household size;

Mal = Dummy variable for Gender: Male=1, Female=0.

AG = Age of the Household head;

SL = Standard of living

TiS = This is the DID estimator to explain the effectiveness of microfinance loan before and after the treatment;

Ti = Dummy variable for the period: 1 for After and 0 for Before;

DDWid = Marital Status dummy for single parent household;

Dmarr = Marital Status dummy for married household;

DPry = Education dummy for primary education;

DHiSc = Education dummy for High school;

DND = Education dummy for National Diploma;

DHDUni = Education dummy for Higher Diploma/University degree.

It is expected that increase in income of the household head as a result of influence of microfinance loan would reduce poverty status of the household members. Also, income

of household can be hypothesized to have positive relationship with number of household members employed, the assets owned by the household, standard of living and educational level of the household head. The age of the household head is also expected to affect his/her income. Those who are still in working age are expected to possess more income than the retired household head. Marital status can influence the household income. The married couple household and single parent households are likely to have more income than single household due to the fact that the latter has less responsibility and some of the members of the former may generate additional income.

4.4 Sampling Design

For the purpose of this study, a two-stage combined sampling technique is adopted. The first stage involves stratified random sampling. The second stage consists of purposive sampling (for non-beneficiary of microfinance) and simple random sampling (for beneficiary of microfinance).

As earlier mentioned, Nigeria is grouped into six Geo-political zones. There are differences among the zones when considering their geographical features like climatic conditions, infrastructural facilities, human settlement pattern, level of economic developments and historical antecedents. According to 2006 National Population Census, South West Geo-political zone has a population of 27,722,432 people out of the Nation's total population of 140,431,790. The people in the study area are mainly engaged in microenterprises, farming, light cottage industry, livestock business,

motorcycle transport business, retailing, motor and motorcycle repairs, furniture works, tailoring, and other artisan works.

Each zone contains states that mostly share some common values in terms of language, culture and other traditions with each other. Majority of the data collected is from Ogun state which is a replica of other states in the zone. Based on this justification, in the first stage Ogun State is classified based on three senatorial districts. Each district was also grouped for political and administrative convenience like the zones at the Federal level.

The inhabitants of each Senatorial District speak mostly the same dialect and have same cultural antecedent. As there are high similarity in terms of ethnicity, culture and language inside each of the three districts (and hence, heterogeneity across districts), it is possible to treat the districts as strata to draw representative sample.

From each Senatorial district, stratified samples were employed where three strata are formed based on the Senatorial districts. Two local government areas were selected randomly from each of the three strata. A total of six local government areas were selected randomly from 20 local government areas in Ogun state. In order to enhance the representation of sample, three local government areas were chosen from Osun and Oyo states based on the criteria of similarity in the historical antecedents, socio-cultural uniqueness, population size, occupation, language and proximity to the sampled local government areas in Ogun state. The total sample size of the study therefore comes from three out of the six states in the South-West geo-political zone of Nigeria. This is

illustrated in figure 4.2. As such, stratified sampling helps to address the problem of one-sidedness associated with simple random sampling. Table 4.2 presents the randomly selected local government areas.

Table 4.2
Twenty Local Government Areas in Ogun State

Senatorial District	Local Government Areas
Ogun East	Sagamu, Ikenne, Remo North, Ijebu-Ode, Odogbolu , Ijebu North East, Ogun Waterside & Ijebu East
Ogun West	Ado-Odo/Ota, Egbado South, Ipokia, Imeko Afon and Yewa North
Ogun Central	Abeokuta North, Odeda, Obafemi-Owode, Abeokuta South, Ifo and Ewekoro.

(Source: Independent National Electoral Commission)

In the second stage, simple random sampling was used to select 65 microfinance loan beneficiaries from each of the selected local government areas, except Obafemi-Owode local government where MFIs are more concentrated; and purposive sampling to select 65 non-beneficiaries (those who are eligible to take the loan and also into similar business with beneficiaries) from the same local government area. This is due to the fact that the list of beneficiaries can be obtained from the bank with full information; therefore, random selection is possible for beneficiaries. In the same vein, the list of non-beneficiaries can also be obtained but not exhaustive and may be difficult to get full information so in order to get the best respondents for this category of people, purposive sampling is the next option (to obtain non-beneficiary respondents which are as close as possible to the beneficiary respondents).

In terms of targeted sample size, 1,170 respondents were contacted with the questionnaires. Going by the assertions of the Central Bank of Nigeria and the National Association of Microfinance Banks (NAMB) reports explained in chapter three; and the Mix Market Profile of 1.8 million borrowers of microfinance in Nigeria, it is imperative to affirm that the total number of Microfinance clients is less than five per cent of the total population.

Assuming that 10% of the population is eligible to the microfinance, for senatorial district 1, the target population is 125,044 (total population in district 1 x 10%); for district 2, it is 165,193; for district 3, it is 84,877. According to Sekaran and Bougie (2010: 295-6), Krejcie & Morgan (1970: 607-10), it is sufficient to have a sample size of 384 respondents per district. Equal allocation of sample is taken for each Local Government area except one because (i) the areas were chosen by random selection (ii) the microfinance banks were not established in the areas on the basis of population but on the level of commercial activities. In short, this study used a two-stage sampling technique which combines different methods of sampling based on the characteristics of the sub-population. Figure 4.2 shows the structure of this sampling design.

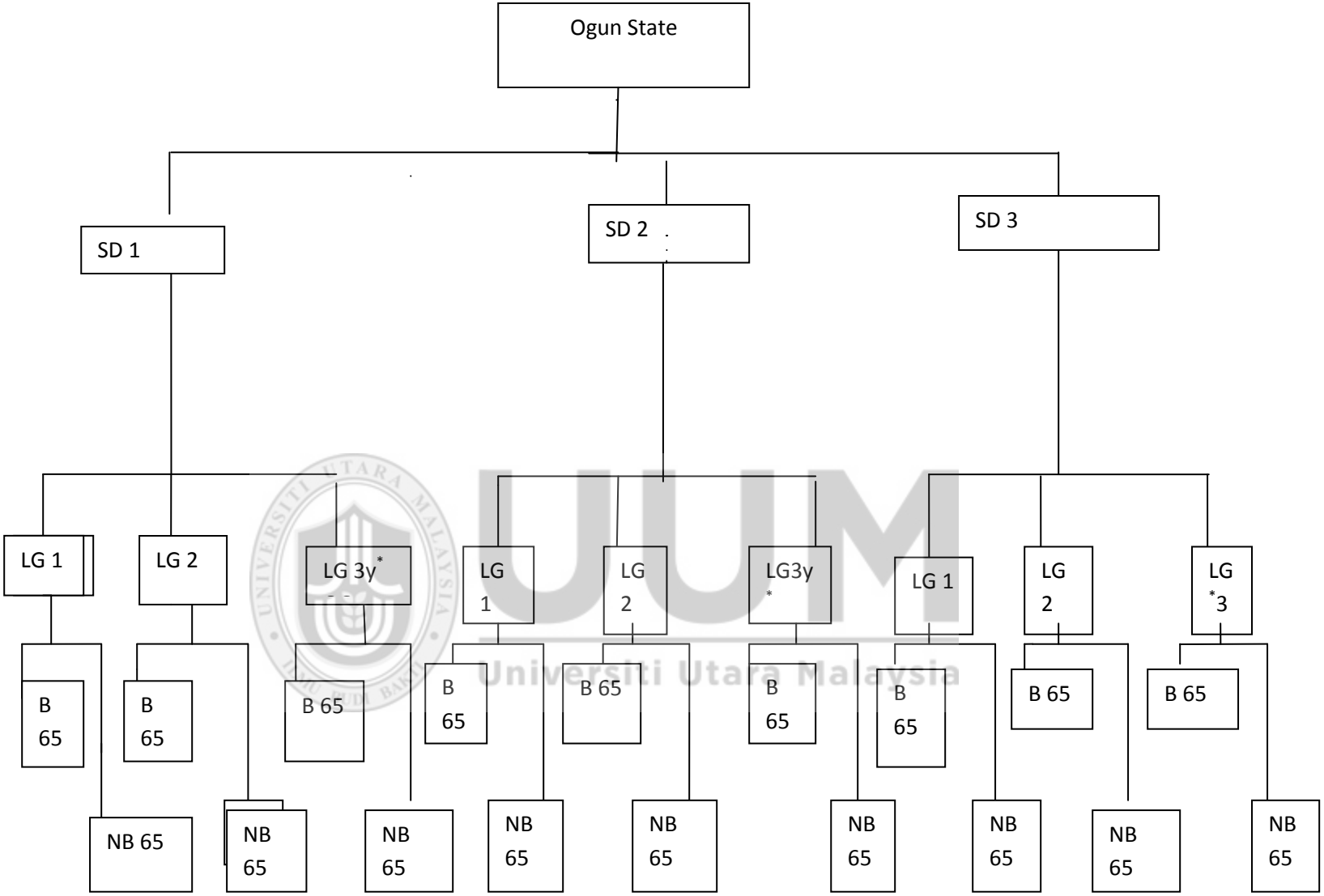

Figure 4.2
The Sampling Design
SD= Senatorial District LG= Local Government B= Microfinance loan Beneficiary NB= Microfinance loan Non-Beneficiary
*Similar local government areas selected from Osun and Oyo states

4.5 Data Collection Method and Research Instrument

The data for the research was obtained through structured questionnaire (primary data); complementary information was obtained through the interview of microfinance operators and secondary sources. The questionnaire was structured in order to extract the maximum information from the respondents and to achieve the objectives of the study. The questionnaire contains both closed and open questions to enable the respondents express their opinion where necessary and further guide the researcher on the subject matter. The choice of questionnaire is as a result of high literacy level among the loan beneficiaries revealed through preliminary investigation. Questionnaire maintains the anonymity of the respondents as his identity may not be disclosed.

That is, it protects the respondent's privacy. Also, with well-prepared questionnaire the respondent finds the questions easy to answer without wasting much time. With the use of questionnaire, the researcher avoids bias and finds his analysis easy with objective results. The sample size for the study is 1,170 respondents make up of beneficiaries and non-beneficiaries of Microfinance loan in the study area.

For the beneficiaries and non-beneficiaries of microfinance loan, the questionnaires were distributed to them. The questionnaires were also collected from them personally to enable the respondents ask for any clarifications from researcher and also the researcher could seek further information if need be. Thus, this is self-administered questionnaire with the benefit of avoiding misunderstanding and misconception in the questionnaire items. Collecting such a cross-sectional data from individuals and households at a given

point in time is very useful for the evaluation of Government policy like microfinance programme on poverty alleviation (Wooldridge, 2009: 6).

The questionnaires were prepared in two sets: one set of questionnaire for the Microfinance loan beneficiaries while the other set of questionnaire was for the non-beneficiaries. The content of Microfinance loan beneficiaries' questionnaire are divided into business and owner's profile, consumption expenditure, loan procurement and loan utilization among others. The non-beneficiaries' questionnaire is sectioned into business and owner's profile, consumption expenditure and business management (See details of the definition of variables and measurement of scales in Appendix C). The questionnaire was adapted from Multidimensional Poverty Index (MPI), Enhancing Financial Innovation and Access (EFInA), and Household Economic Portfolios Model (HEPM). The framework of HEPM conceptualizes that the effect of microcredit should be measured in the entire life of the beneficiary. This makes it possible for the study to measure the impacts of microfinance at both individual, household and enterprise levels; bearing in mind that intervention programme like microfinance has impacts that manifest beyond the individual level. Similar studies on the impact of microfinance used the same method (for example see Chen & Liu, 2012; Chen & Dunn, 1996; Khalily, 2004 ; Mokhtar, 2011).

The loan beneficiaries are those individuals who obtained microfinance loan in at least previous three years. In order to measure the real impact of microfinance loan and following Pitt and Khandker, (1996); Khandker (2005) and Wydick (1999); the

beneficiaries are required to have obtained and used the loan for at least three years. This category of people is expected to be eligible for impact assessment. This assertion is supported by McIntosh, Villaran, & Wydick (2011).

Non-Beneficiaries are those who have similar characteristics with the latter and applied for microfinance loan in at least past three years but could not obtain approval for the loan. Being an individual beneficiary of microfinance loan is regarded as a derived one from the household perspective. In essence, if one or more members of a household obtain microfinance loan, the entire household is classified as beneficiary (Ashraf and Ibrahim, 2014).

A total of 1,170 questionnaires were distributed to the respondents, 1,136 were collected back out of which 1,134 were effective; consisting of 594 loan Beneficiaries and 540 Non Beneficiaries. The survey was able to achieve about 97 percent sample size response rate (see table 4.3). Similar studies use to record less than 90 percent response rate (for example, Coleman, 1999).

Table 4.3
Sample Selection Result

Senatorial District	**State**	**Local Government Area**	**Loan Beneficiary**	**Non-Beneficiary**	**Total**
1	Ogun	Abeokuta South	64	65	129
		Obafemi-Owode	87	63	150
	Oyo	Olorunda	65	65	130
2	Ogun	Ijebu-Ode	65	60	125
		Sagamu	54	63	117
	Oyo	Ibadan North –West	64	48	112
3	Ogun	Ayetoro	65	51	116
		Imeko-Afon	65	65	130
	Osun	Oshogbo	65	62	127
Total			594	542	1136

Source: Field Survey Data (2014)

The choice of MPI as a research tool is based on its quality and the fact that it complies with the Millennium Development Goals' (MDGs) concept. The tool has been well tested, widely used and very efficient for measuring the poverty level in numerous countries.

Furthermore, EFlnA is a financial sector development organization that carries out surveys on financial institutions including microfinance banks. The organization is

funded by the United Kingdom Government's Department for International Development (DFID) and the Bill and Melinda Gates.

HEPM is a methodology and conceptual approach that encompasses individual, household and the enterprise in order to take care of fungibility of credit. This is in line with some studies that attempted to assess the impact at a number of levels. For instant, United States Agency for International Development's (USAID) Assessing the Impact of Microenterprises (AIMS) Project (Hulme, 2000) measured impact at microenterprise, household, community and institutional levels. HEPM was designed to make well embedded impact assessment of the microenterprise services funded with microfinance. Giving paramount importance to the issue of credit to microenterprise, the model fiddles into the use of credit by the household for various purposes. It has the potentials to serve as adequate tools for impact assessment of intervention programs which may attract the attentions of researchers, private voluntary organizations, non-governmental organizations and others that are interested in understanding and keeping records of the impacts of microenterprise programs. Initially the model was to serve as design of the USAID's project on Assessing the Impact of Microenterprises (AIMS). In summary, the model permits variations and dimensions of production, consumption and investment activities in various kinds of households (Chen & Dun, 1996).

4.6 Validity and Reliability of Research Instrument

Validity examines how well a particular concept is measured by the measuring instrument. It confirms whether the variable/construct of a survey instrument measures

what it is purposely designed to measure (Bell, 2010; Cavana, Delahaye & Sekaran, 2001; Jupp, 2006). A validity test therefore confirms if the right concept is measured (Sekaran & Bougie, 2009).

However, in the context of this study, the research instrument is adapted from MPI, EFInA and HEPM studies which are already well established for similar studies. This is consistent with the view that where some already well developed reliable and validated instruments are available, researchers can use the already developed and reputed to be 'good' measures rather than replicating the efforts by developing their own measures (Cavana *et al*., 2001:214). To ensure the clarity and unambiguity of the questionnaire, the face validity was conducted through the pilot test enumeration. In the course of this exercise, the survey instrument (Questionnaire) was subjected to several critiques, review and development through the pilot test. Pilot study was conducted in Lagos and Ogun States for the purpose of confirming the adequacy, quality and usability of the questionnaire. 50 questionnaires were distributed and 45 of them were completed and returned. The result of the pilot study was very useful as most of the suggested amendments were used to fine tune the instrument before the final distribution. The content validity was conducted through the experts and practitioners of microfinance banks in the study area. Their useful comments, observations and contributions further improve the quality of the survey instrument.

Reliability test is used to examine how consistently a measuring instrument measures the concept it is supposed to measure. It ensures that what the concept measured is error free

and without bias. This is to verify the accuracy of the measurement and confirm the 'goodness' of a measure (Bougie & Sekaran, 2009; Cavana *et al*., 2001).

The reliability test was carried out by using statistics (alpha) in order to determine if research instrument measures the same variable at different times to the same set of respondents, and confirms if the results are consistently similar. The reliability coefficient is more than 0.73; which is above 0.7 prescribed by literature (Pallant, 2011: 97). This is satisfactory level of reliability among the items considered. Thus, the reliability of the items which include health, education and living standard (three dimensions of poverty) are highly satisfactory for MPI indicators.

4.7 Summary

Microfinance programmes have been identified with poverty alleviation in spite of their pros and cons. Inclusion of demographic as well as socio-economic variables to accessibility of microcredit has been favoured by some prominent researchers.

Measuring the impact of microfinance loan on the welfare of the poor is important in order to verify the conflicting results of the previous researchers on the subject matter; to confirm the efficiency and effectiveness of the programmes and give feedback to the providers of the loan. Using the control group and treatment group method before and after the programme intervention has been supported by some researchers all over the world. The method is expected to aid the elimination of selection bias when used with DID and PSM techniques; as adopted in this study. Since the poverty incidence is

multidimensional, this study uses poverty alleviation, health status, standard of living, expenditure per head and household head income to measure the impact of microfinance loan on the beneficiaries. The samples and instruments used for the study are well verified and validated.

CHAPTER FIVE

ANALYSIS AND DISCUSSION OF FINDINGS

5.0. Introduction

This chapter discusses the sample's socio-economic characteristics and the empirical findings of the models estimated in the study. The chapter is classified into the following sections: Section 5.1 enumerates the main characteristics of the sampled respondents and microfinance loan provided by Microfinance Institutions in the study area. Sections 5.2 and 5.3 discuss the results of the estimated models; while section 5.4 analyses the Propensity Score Matching (PSM) results. The outcome of interviews conducted with the microfinance operators are presented in Section 5.5; while the summary of this chapter is presented in Section 5.6.

To recap, the study used cross-sectional data collected through the structured questionnaire administered in the South-West zone of Nigeria. South-West Nigeria is one of the six geo-political zones of Nigeria. Three states were selected out of six in the Geographical zone namely Ogun, Oyo and Osun states. A total of 1,170 questionnaires were distributed to the respondents out of which 1,136 were collected; 1,134 were useable for the analyses comprising 594 loan beneficiaries and 540 non-beneficiaries.

5.1 Characteristics of Respondents

This section focuses on the demography and socio-economic characteristics of the microfinance loan beneficiaries and non-beneficiaries. The descriptive analysis as contained in the tables below are based on frequency tables, means and also the

hypotheses tests carried out to make comparisons of the two groups (beneficiaries and non-beneficiaries).

Table 5.1 shows the summary of the demographics (before the loan) of the rural poor collected from the study area through the surveyed questionnaire. From the total sample size of 1,134 household heads, 594 (52.4%) are microfinance loan beneficiaries and the remaining 540 (47.6%) are non-beneficiaries. In terms of gender, the sample comprises 53% males and 47% females. About 51% of microfinance loan beneficiaries are males while almost 49% are females; whereas about 56% of non-beneficiaries are males while around 44% are females. This shows that both loan beneficiaries and non-beneficiaries have high similarity in terms of gender. This demographic feature reflects the Nigeria Demographic Statistics Bulletin 2013 which estimates the total population of Nigeria at 174 million people; out of which men constituted 50.5 percent and women took the rest 49.5 percent (NBS, 2013).

With respect to Education level, Table 5.1 shows that majority of the respondents have obtained education in one form or the other; about 14% of the total respondents reported no formal education.

Table 5.1
Demographics of Respondents

	Non-Beneficiary	**Beneficiary**	**Total Sample**	**Statistical Tests**
	N_0 =540 (47.6%) % to N_0	N_1 =594 (52.4%) % to N_1	N_3 =1134 (100%) Subtotal % to N_4 $N_4 = N_0 + N_1$	
Demography				
Gender				
Male	55.6	50.7	53	
Female	44.4	49.3	47	
				χ^2=2.71
Education Level				
No formal education	15.4	12.5	13.8	
Primary education	28.1	19.5	23.6	
High school	25.6	29.3	27.5	
National Diploma	18.7	20.2	19.5	
Higher Diploma/University degree	12.2	18.5	15.5	
				χ^2=19.61***
Age (in years)				
20 - 30	14.3	17.1	16.1	
31 - 40	49.5	46.7	48	
41 - 50	27.3	25.1	26.2	
51 - 60	6.5	8.7	7.6	
>60	2.4	2.6	2.7	
Mean Age	39.25	39.19	39.22	t = .126
Marital Status				
Single	11.3	17.0	14.3	
Married	80.2	75.6	77.8	
Divorced	5.9	3.9	4.9	
Widow	1.9	3.2	2.6	
Widower	.7	.3	.5	
				χ^2=12.56**
Religion				
Islam	44.2	40.8	42.5	
Christianity	48.2	56.8	52.7	
Traditional	7.6	2.4	4.8	

Source: Field Survey Data (2014)
Note: 1. *, **, and ***, represent 10%, 5% and 1% level of significance respectively.
2. x^2 is the chi-square independent test 3. t is the two-population t-test

The proportion of no formal education for the microfinance loan beneficiaries is 12.5%, lower than that of the non-beneficiaries (15.4%). About 87.5% of the microfinance loan beneficiaries and 84.6% of non-beneficiaries have acquired primary education or more (including High School, National Diploma and Higher Diploma/University degree).

With regards to age, the respondents have age of 20 years and above. The overall mean age for the sample is estimated at around 39 years. This shows that most of the respondents are still active and young enough to exhibit their entrepreneurship.

Furthermore, the field survey revealed that a large proportion of the respondents are married (75.6% of microfinance loan beneficiaries and 80.2% of non-beneficiaries). This shows that most of the sampled respondents are responsible to their families and have the tendency to cater for them.

The distribution of the respondents by religion is grouped into three, Islam, Christianity and Traditional. Only 2.4% of microfinance loan beneficiaries have traditional belief while that of non-beneficiaries is 7.6%. Most of the respondents are either Muslims or Christians.

Table 5.2 shows the profiles of the respondents. The experience in business entrepreneurship is grouped into four categories. The vast majority of the respondents have acquired less than 10 years business experience. About 24 percent of the

respondents have 11-20 years' experience and seven percent fall into 21-30 years category.

Table 5.2
Profiles of Respondents

	Non-Beneficiary	**Beneficiary**	**Total Sample**	**Statistical Tests[2,3]**
	N_0 =540 (47.6%) % to N_0	N_1 =594 (52.4%) % to N_1	N_2 =1134 (100%) Subtotal % to N_2 $N_2 = N_0 + N_1$	
Household Profile: Experience in Business (in years)				
≤ 10	68.1	80	74.3	
11 - 20	29	18.4	23.5	
21 - 30	2.3	1.7	2	
>30	.8	.2	.5	
Mean Experience in Business	9.40	7.81	8.57	t = 5.229***
Household Monthly Income in Naira (Head)				
Less than N5000	13.1	14.1	13.7	
N5000 - N10000	11.7	21.0	16.6	
N11000 - N20000	24.4	19.2	21.7	
N21000 - N30000	27.2	17.3	22.0	
Above N30000	23.5	28.3	26.0	t = 1.442

Source: Field Survey Data (2014)

Note:
1. *, **, and ***, represent 10%, 5% and 1% level of significance respectively.
2. x^2 is the chi-square independent test
3. t is the two-population t-test

Also in Table 5.2, the monthly income of the household head is grouped into five levels. The monthly income for most of the respondents reported is above 30,000 Nigerian Naira

(26%) while those who fall between 21,000 and 30,000 Nigerian Naira is 22 percent. Other respondents earn below N21, 000 per month.

Table 5.3 shows the economic characteristics of the respondents. It is discovered that the household head monthly expenditure of respondents is mainly less than 5,000 Nigerian Naira (33.4%). About 29 percent of the respondents spent between N5, 000 and N10, 000 per month while the remaining 38 percent spent above N11, 000 per month on household expenditure. The mean household expenditure is N7750.

The proportion of the household size in the sampled survey shows that 55 percent of the respondents have 2-4 persons as members of the household while almost 22 percent are with less than two persons per household. About 24 percent of the respondents accommodate above five persons as members of each household. The average household size is two-people.

The survey also revealed that mostly 2-4 persons in a household work and earn income (53%); while almost 39 percent of the total respondents have less than two income earners in a household; less than 10 percent of them has more than five persons that work in each household.

In order to investigate the relationship between the loan status (beneficiaries and non-beneficiaries) and the socio-demographic characteristics; the chi-square independent tests

and two-population mean tests are performed. The results are presented in Table 5.1, 5.2 and 5.3.

Table 5.3
Economic Characteristics of Respondents

	Non-Beneficiary	**Beneficiary**	**Total Sample**	**Statistical Tests[2,3]**
	N_0 =540 (47.6%) % to N_0	N_1 =594 (52.4%) % to N_1	N_2 =1134 (100%) Subtotal % to N_2 $N_2 = N_0 + N_1$	
Household expenditure (Head)				
Less than N5000	24.9	41.1	33.4	
N5000 - N10000	33.2	24.5	28.6	
N11000 - N20000	30.6	18.5	24.3	
N21000 - N30000	5.8	7.3	6.5	
Above N30000	5.6	8.6	7.2	$t = 2.314^{**}$
Mean Household Expenditure				N7750
Household Size (members)				
Less than 2 persons	13.5	28.5	21.4	
2 - 4 persons	67.5	44.3	55.3	
5 - 7 persons	17.4	23.6	20.7	
8 - 10 persons	1.1	3.4	2.3	
Above 10 persons	.4	.3	.4	
Mean Household Size	2.07	2.03	2.05	t = 1.013
Number of Income Earners (members)				
Less than 2 persons	27.5	49.1	38.8	
2 - 4 persons	64.9	42.2	53.0	
5 - 7 persons	7.4	7.8	7.6	
8 - 10 persons	.2	1.0	.6	
Mean number of Income Earners	1.80	1.61	1.70	$t = 5.312^{***}$

Source: Field Survey Data (2014)
Note:
1. *, **, and ***, represent 10%, 5% and 1% level of significance respectively.
2. x^2 is the chi-square independent test
3. t is the two-population t-test

The results show that variables like education level, religion, marital status, household expenditure, experience in business and members of household working are not independent with the loan status (beneficiaries and non-beneficiaries) statistically (see Table 5.1, 5.2, and 5.3). By implication, this signifies that the distribution of microfinance loan beneficiaries and non-beneficiaries is strongly influenced by Education level, Religion, Experience in Business, members of household earning income, amount of household expenditure and Marital status. On the other hand, the results revealed that being a male or female; age, Income of household head and the number of household members do not necessarily relate to the beneficiary or non-beneficiary of microfinance loan.

The results reveal that the directions of significant relationship are: the proportion of microfinance loan beneficiaries with post High School education (Diploma and Degree) is higher than that of non-beneficiaries (38.7% against 30.9%); the vast majority of both microfinance loan beneficiaries and non-beneficiaries fall into similar age bracket of 31-40 years old (46.7% and 49.5% respectively); being married could be substantial to determine the accessibility to the loan; most of the beneficiaries and non-beneficiaries are either Muslims or Christians; non-beneficiaries have higher mean of experience in business than beneficiaries; the percentage of loan beneficiaries in the monthly expenditure of less than 5,000 Nigerian Naira (41.1%) is higher than non-beneficiaries (24.9%); and non-beneficiaries have larger mean number of income earners (1.8) than beneficiaries (1.61).

5.1.1 Features of Microfinance Loan in the Study Area

Tables 5.4 and 5.5 depict some general information about microfinance loan, obtained from the respondents in the study area. This is to give more insights into the nature and type of the loan characteristics. Considering the processing period for the loan, most of the beneficiaries (about 87%) obtained the loan within 3 months of their application. About 7% of the respondents received the loan between 4 and 6 months while almost 6% of the beneficiaries obtained theirs in almost one year. The mean duration of loan approval is about 2.5 months.

Table 5.4
Features of Microfinance Loan

	All Beneficiaries
	N =594
	% to N
Loan Processing Time (in months)	
1 – 3	86.9
4 – 6	6.6
7 – 9	1.2
10 – 12	3.6
>12	1.7
Mean in Months	2.34
Amount of loan granted (in Naira)	
Less than N50000	16.4
N51000 - N100000	39.9
N101000 - N300000	26.5
N301000 - N500000	12.8
Above N500000	4.4
Mean Loan	N80400

Source: Field Survey Data (2014)

With regards to the amount of microfinance loan granted, about 16% of the respondents received less than 50,000 Naira (equivalent to 417 USD) while almost 40% of the beneficiaries received between 51,000 and 100,000 Naira (equivalent to 425 - 834 USD).

Also, about 27% of the loan beneficiaries received between 101,000 and 300,000 Naira (equivalent to 842 - 2,500 USD) while nearly 13% were granted between 301,000 and 500,000 Naira (equivalent to 2,508 - 4,167 USD). According to the results, only small proportion of the beneficiaries (4.4%) received above 500,000 Naira (equivalent to 4,167+USD). The mean loan is N80,400 (equivalent to 670 USD).

As shown in Table 5.5, only about 28percent of the microfinance beneficiaries complained of insufficient fund disbursed by MFIs while the rest (72 percent) of the beneficiaries agree that the loan is sufficient. The results also indicate that only 35.5 percent of the beneficiaries agreed that the loan procedure was cumbersome while the remaining 64.5 percent did not agree to that notion. The duration of loan repayment is always determined by the operators (MFIs) of the loan. To this end, almost 90 percent of the beneficiaries agreed that the duration of loan repayment was realistic while the remaining 10 percent did not agree with the statement. About 80 percent of the loan beneficiaries accept that Microfinance loan disbursement was timely while almost 21 percent did not agree.

Table 5.5
Characteristics of Microfinance Loan

	All Beneficiaries	
	N =594	
	% to N	
	Yes	No
Problem encountered in loan process:		
- Loan not sufficient	27.7	72.3
- Cumbersome procedure	35.5	64.5
- Duration of loan repayment not realistic	10.3	89.7
- Loan disbursement not timely	20.6	79.4

Source: Field Survey Data (2014)

5.2 Accessibility to Microfinance Loan

This section contains the analysis of factors that determine the accessibility of microfinance loan by the rural poor, as provided by the empirical results of the estimated Model 1 (microfinance accessibility) and also the results of the collected qualitative data.

5.2.1. Factors Determining the Microfinance Accessibility (Model 1)

To recap, model one which has microfinance status (Beneficiary =1, Non-Beneficiary =0) as the dependent variable, attempts to predict the factors that determine access to microfinance loan by the poor in South-West Nigeria.

In order to identify the factors that influence the accessibility of microfinance loan in the study area, the logistic regression model, as specified in Equation 4.2, was explored. Table 5.6 shows the factors and the estimated results of the binary logit model, including the marginal effects for the explanatory variables. The results identify the explanatory variables determining the household accessibility to microfinance loan in the study area.

In general, the estimated logistic model was able to predict correctly the household's access to the microfinance loan at 71.73 percent level (the percentage of accuracy in classification); and nearly all the explanatory variables are found to be statistically significant. Table 5.6 shows that the Chi-square test statistic for overall fit of the model is significant at 1% level, therefore the null hypothesis that states that the parameter estimates for the model are equal to zero is rejected. This implies that the coefficient of

the independent variables can be used jointly to explain the probability of accessing microfinance loan by the rural household.

The model, which has microfinance beneficiaries or non-beneficiaries as its dependent variable aims at predicting the factors that determine access to microfinance loan by the poor in South-West Nigeria. To this end, specific characteristic variables of the respondents like age, gender, education level and household size are included in the explanatory variables. This goes in line with some previous literature on the subject matter that included such demographic variables to explain the dependent variable (for example, Arun, *et al*, 2006; Ashraf and Ibrahim, 2014; Balogun and Yusuf, 2011; Obisesan and Akinlade, 2013).

The result shows a significant positive sign on age variable. This indicates that the older household head (within the working age), has higher probability of accessing microfinance loan. One possible explanation of this result is that old age is always attached to working experience which cannot be bought in the market. This experience also usually shows maturity and responsibility which can facilitate repayment of loan when due. This result is supported by the previous studies (for example see, Arun *et al*., 2006; Khoi-Phan,2012).

On the other hand, the significant positive sign of Business Worth variable implies that the probability of households' accessibility to microfinance loan increases with increase in the values of business worth. Business-worth is defined as net Total Assets. This

implies that microfinance institutions' (MFIs) clients with improved business-worth would be able to make repayment of loan regularly and increase the probability of accessing the loan in the future. In fact, high business worth households have more investment opportunities and enough collateral that can engender prompt repayment of loan. Therefore they have easy access to the microfinance loan. On the contrary, the significance of skill/business experience variable with negative sign means that households' head with more years of experience in entrepreneurship are less likely to access microfinance loan, other things remain constant. This may be due to the fact that with high business skill, the household head might have secured enough assets and improved investments that would make microfinance loan less attractive.

In the same vein, both income and assets variables are negative and significant. This implies that the higher the monthly income of the household head and the assets values, the less the probability for such household to access microfinance loan, other factors remain constant. This is because both Income and Assets constitute the households' potential to be less dependent on external credit. Therefore, it shows that the business is thriving and the operators would be less inclined to borrow from external source. More so, microfinance programme is expected to service the poor and downtrodden. Table 5.6 also shows that Education dummies are significant but with negative signs. For instance, those who completed Primary Education and above have less probability to access microfinance loan than those with no education. The result is consistent with the findings of Smahi and Benhabib (2011) which concludes that the rate of participation of poor and very poor in the microfinance programme gradually reduces as the level of education

increases. This justifies the fact that higher education is not a necessary requirement for accessing the loan; because microfinance loan is for the poor not meant for elites. These results signify that mainly poor households with low skills and education are the likely targets of MFIs (Arun *et al*, 2006). This is also corroborated by the findings of Ashraf and Ibrahim (2014).

Table 5.6
Logit Estimates for Rural Poor's Accessibility to Microfinance Loan
Dependent variable: MFS

Independent Variables[c]	**Estimated Coefficients**	**Robust Standard Error**	**Marginal Effect**[a]
AG	0.120	0.057**	0.030
[d]AG^2	-0.01	0.001	-0.000
BW	0.115	0.037***	0.029
SK	-0.172	0.049***	-0.043
[d]SK^2	0.004	0.002**	0.001
Dummy variables[b]			
DPry	-0.799	0.244***	-0.196
DHiSc	-0.492	0.248*	-0.122
DND	-1.173	0.281***	-0.281
DHDUni	-0.941	0.306***	-0.228
Dmarr	-0.349	0.194*	-0.086
ASS	-0.744	0.099***	-0.186
HEST	0.451	0.091***	0.112
SL	0.617	0.048***	0.154
INC	-0.815	0.289***	-0.203
[d]INC^2	-0.017	0.047	-0.004
McFadden R-Squared (Pseudo R^2)			0.236
Correctly Predicted (%)			71.73
Log Likelihood			`-574.964
LR statistics: Chi-Squares (Sig.			354.39
Degree of Freedom			15
Hatsq (p-value)			0.234
Total observations			1086

Source: Field Survey Data (2014)

Note

[a]Marginal effect is estimated at mean value and it has different interpretations for dummy variables.

[b] a dummy variable is dropped in each group in order to avoid a multicollinearity problem.

***=significant at 1%; **=significant at 5% level; *=significant at 10% level

[c] Dependent variable=1 if respondent has accessed microfinance loan and zero if otherwise.

[d]The squared variables are employed in order to avoid failure in the general specification test. Failure to include such variables can make the model to suffer from biased estimators of other parameters (Wooldridge, 2009).

However, the significant positive sign on Health status variable indicates that the healthier household head would have higher probability to access microfinance loan than the unhealthy one. This can be adduced to the adage that says "health is wealth". An unhealthy person does not have the potential of hard work which can ensure loan repayment. Also a significant and positive relationship is found between living standard and households' accessibility to microfinance loan. This implies that with proportionate increase in the standard of living, there is higher probability of accessing microfinance loan, other variables kept constant. One possible explanation for this is that living standard of the households can enhance the possibility of being enterprising and making enough returns on business for timely loan repayment.

Furthermore, the married dummy variable is significant with negative sign. This indicates that married parent household has less probability to access microfinance loan when compared with single applicant and single parent households. This can be explained by the fact that the married households always have larger household size than single parent households. The large population can serve as constraint due to low per capita income that may not augur well for timely loan repayment. This finding is supported by the result of similar empirical study carried out in China by Li (2010).

From the results in Table 5.6, nearly all the variables are found to have significant impact on households' accessibility to Microfinance loan. To recap, the significant variables are Age, Business-worth, Skill/Business experience, Assets, Health Status, Living Standard and Income.

It has been affirmed that the signs of logistic coefficients can only provide the direction of the effect of explanatory variable on the probability of success but do not generate a direct economic interpretation (for example, see Li, 2010). In order to address this limitation, this study calculated the marginal effects. The marginal effect indicates the change in the predicted probability as it relates to changes in the independent variables (Green, 2012:693-694).

In addition to the above analysis, Table 5.6 (last column) provides the marginal effects for the explanatory variables of the estimated logit model. As presented in the table, the marginal effect shows that a year increase in age would increase the probability of accessing Microfinance loan by 3 percent on average. In addition, an increase in the value of Business worth would have higher probability of accessing microfinance loan by 3 percent. Conversely, a year increase in skill/experience in business would result to less probability of accessing microfinance loan by 4.3 percent.

As depicted in Table 5.6, an increase in Income and value of Assets variables would reduce the probabilities of households accessing microfinance loan by 20.3 percent and 19 percent respectively on average. The marginal effect of Health status shows that an improvement in the health condition of an applicant would increase the probability of accessing microfinance loan by 11.2 percent on average. Likewise, an increase in the living standard would on average, increase the probability of accessing microfinance loan by 15.4 percent. The marginal effects of education dummies indicate that increase in the attainment of educational level from primary education and above would reduce the

probability of accessing microfinance loan with percentages ranging from 12 percent to approximately 28 percent when compared to no formal education group. Similarly, the marginal effect of Married dummy shows that being a married household would reduce the probability of access to microfinance loan by almost 9 percent when compared to single household. The overall results of the logistic regression uncover that business worth; health status and living standard are the most valuable variables that can influence the probability of households' accessibility to microfinance loan which may in turn contribute to business opportunities that will generate more income. The analysis further affirm that increase in skill/ experience in business, income, assets, education and married households can have the probability of reducing access to microfinance loan.

The results above show that there is need for government to pay more attention to the operations of MFIs in order to reduce poverty in Nigeria. Of paramount importance is the need to assist the rural poor with micro-credit that would be disbursed with concessional interest rates without collateral requirements.

5.2.2 Factors Determining Microfinance's Accessibility (Qualitative Data)

This section discusses some other relevant qualitative information collected through the surveyed questionnaires that specify other factors that can affect the household accessibility to microfinance loan aside from the ones analysed in the empirical model.

Microfinance Usage

The Non- Beneficiaries with the total number of 540 were asked through the questionnaire whether they still have interest in patronizing Microfinance loan in future.

As depicted in Table 5.7, 30 percent of the respondents were not willing to be involved in microfinance programmes any longer while the remaining 70% of the respondents were still interested. This shows that a lot of the rural poor are still willing to access Microfinance loan but could not have access due to unfavourable conditions stipulated by the operators.

Motivating Factor for Microfinance Patronage

On the best motivating factor that would encourage the loan usage, nearly 60% of the respondents opined that they are ready for the loan when the MFIs can satisfy their needs. This confirms the report of CBN (2005) that asserts the notion that MFIs are yet to meet the poor people's demand. Other respondents stated that they were yet to understand MFIs work(7.9%); while some were yet to understand the benefits of having account with MFIs (5.3%), part of the respondents want better conditions of loan (19.4%) and about 7% of the respondents were yet to trust them (see table 5.7). All these responses point to the fact that there is need for more public awareness on the role of Microfinance in the rural areas. This is a challenge to the operators and the Government.

Table 5.7
Non-Beneficiaries' Response to Non-usage of Microfinance Loan

	Non- Beneficiaries
	N =540 % to N
Any Incentive to encourage the respondent to use Microfinance Loan	
No	30.0
Yes	70.0
Most important factor to encourage Microfinance loan Usage	
When I understand how they work	7.9
When I understand the benefits of having an account	5.3
Better loans should be on offer	19.4
When I start to trust them	6.5
When they meet my needs	56.1
Others	4.8

Source: Field Survey Data (2014)

From the above analyses, it can be concluded that the rural households' inadequate access to microfinance loan can be mainly attributed to lack of enough business skill, lack of required assets and resources; and incapability for loan repayment on time. This is confirmed by the empirical findings of the logistic regression. However, there are some institutional –level factors that can serve as constraints for the rural poor from accessing microfinance loan. These include high interest rate, administrative requirements and bottlenecks during the loan processing period that can lead to the rejection of loan applications and discouragement for the applicants. In fact, some applicants can be reluctant to apply in future and prefer the informal loan sources to fund their businesses, due to latter's simplicity and prompt response to clients' needs, although more expensive. This confirms the findings of Atieno (2001) and Umoh (2006) which affirm that the financial institutions greatly contribute to inaccessibility of loan by their

administrative bottlenecks and policies on lending. The results also imply that MFIs need to embark on real promotion of their programmes among the rural dwellers and make the households be fully aware of the opportunities of microfinance loan and its benefits over informal loans. This is expected to further enhance the participation of rural households in microfinance programmes in general and accessibility of microfinance loan in particular. The timing of the loan disbursement and repayment is also of paramount importance particularly for the peasant farmers who may not be able to repay their loans during the off-season period. Suffice to say that the MFIs should be sensitive to the "seasonal finance constraints" of their clients (Dorward, 2012).

5.3 Impact of Microfinance Loan on Poverty Alleviation

This section discusses the results of the analyses of the impact of Microfinance on the poverty Alleviation of the rural households; and other poverty dimensions in terms of Health status, Standard of living, Expenditure per head and Income of household head.

This section is grouped into six parts. Section 5.3.1 deliberates on the cursory look of DID analysis. Sections 5.3.2 and 5.3.3 discuss the empirical results obtained from the logistic analysis to determine the impact of Microfinance loan on Poverty Alleviation and Health Status respectively. Sections 5.3.4, 5.3.5 and 5.3.6 analyse the results of the multiple regression obtained on the impact of Microfinance on the Standard of living, Household Expenditure per Head and the Income of the household head.

5.3.1 Microfinance Impact Estimation with Difference–in-Differences (DID) Method

Using the DID approach, this section discusses the results of the analysis of the impact of microfinance on some of the key variables that estimate the poverty status of the rural household. The DID method is based on equations 4.3 and 4.4. Table 5.8 shows the percentages of some of the main variables used to measure the level of poverty. Therefore this is a descriptive analysis that shows a cursory look of the impact of microfinance loan; hence, the result cannot justify statistical significance. Statistical tests are further explored in more complex analyses explained in the later part of this chapter.

As depicted in Table 5.8, the acronym in the first column (BN_1) indicates the percentage characteristics of microfinance loan beneficiaries before obtaining the loan; column two (NBN_1) shows the same characteristics of non-beneficiaries before applying for the loan. In the same vein, column three (BN_2) shows the percentage characteristics of microfinance loan beneficiaries after obtaining the loan while column four (NBN_2) indicates the same for non-beneficiaries after the application for the loan. Column five (D_1) shows the difference in percentages of the microfinance loan beneficiaries before and after obtaining the loan with regards to the listed variables; while column six ($D_{2)}$ shows the same characteristics for non-beneficiaries before and after the application for the loan. Column seven shows the difference in the differences as the final results.

The negative signs in the last column indicate the situation where the percentage increase in the difference characteristics of the non-loan beneficiaries is higher than that of loan beneficiaries. Conversely, the positive signs in the last column can be interpreted that the

situation portrays more difference in the differences of the percentage characteristics of the microfinance loan beneficiaries than non-beneficiaries.

Overall, as shown in Table 5.8 the microfinance beneficiaries have higher level of education, greater increase in household size, greater level of sales, greater level of income and less improvement in health standard than the non-beneficiaries from the loan programme. This indicates that when microfinance loan is extended to the rural poor, it can transform their wellbeing. These assertions can be justified by the success glory ascribed to microfinance institutions in some parts of the world.

For instance, Amanah Ikhtiar Malaysia (AIM) in Malaysia, Bank of Rakyat in Indonesia and Grameen Bank in Bangladesh (to mention three) have performed creditably towards the poverty reduction and increase in income of the rural poor households in their respective domains. In addition, the notion that microfinance can contribute towards the poverty reduction by increase in income, improved health standard, increase in the level of education and others have been confirmed by various studies (for example, see Arun, *et al*., 2006; Asghar, 2012; Bashir, *et al*., 2010; Green *et al*., 2006; Jha & Dang, 2010; Khalily, 2004; Muller & Bibi, 2010; Otu, *et al*., 2011; Smith, 2010).

Table 5.8
Cross-tabulations of some variables on the impact of Microfinance loan.

	Before		**After**		**D_1**	**D_2**	**D_1-D_2**
	BN_1	**NBN_1**	**BN_2**	**NBN_2**	**BN_2-BN_1**	**NBN_2-NBN_1**	%
Education							
No formal education	12.5	15.4	12.0	15.4	-(0.5)	0	-(0.5)
Primary education	19.5	28.1	16.7	27.2	-(2.8)	-(0.9)	-(1.9)
High school	29.3	25.6	27.4	22.0	-(1.9)	-(3.6)	1.7
National Diploma	20.2	18.7	17.8	15.9	-(2.4)	-(2.8)	0.4
Higher Diploma/ University degree	18.5	12.2	26.1	19.4	7.6	7.2	0.4
Household Size							
Less than 2 persons	28.5	13.5	26.1	9.1	-(2.4)	-(4.4)	2
2 - 4 persons	44.3	67.5	43.9	68.8	-(0.4)	1.3	-(1.7)
5 - 7 persons	23.6	17.4	25.4	18.6	1.8	1.2	-(5)
8 - 10 persons	3.4	1.1	3.7	3.0	0.3	1.9	0.6
Above 10 persons	0.3	0.4	0.8	0.6	0.5	0.2	0.3
Monthly Income of Household Head							
Less than N5000	14.1	13.1	5.9	8.3	-(8.2)	-(4.8)	-(3.4)
N5000 - N10000	21.0	11.7	17.5	9.4	-(3.5)	-(2.3)	-(1.2)
N11000 - N20000	19.2	24.4	18.7	26.5	-(0.5)	7.3	-(7.8)
N21000 - N30000	17.3	27.2	18.2	26.9	0.9	-(0.3)	1.2
Above N30000	28.3	23.5	39.7	28.9	11.4	5.4	6
Monthly Household Expenditure by Head							
Less than N5000	41.1	24.9	30.9	21.0	-(10.2)	-(3.5)	-(6.7)
N5000 - N10000	24.5	33.2	25.6	28.8	1.1	-(4.4)	5.5
N11000 - N20000	18.5	30.6	19.7	31.7	1.2	1.1	0.1
N21000 - N30000	7.3	5.8	10.6	8.2	3.3	2.4	0.9
Above N30000	8.6	5.6	13.2	10.4	4.6	4.8	-(0.2)
Health Status							
Very poor	.5	.2	.3	0	-(0.2)	-(0.2)	0
Poor	2.2	2.0	.8	.2	-(1.4)	-(1.8)	0.4
Good	54.9	67.2	53.5	61.2	-(1.4)	-(6)	4.6
Excellent	42.4	30.6	45.3	38.6	2.9	8	-(5.1)

Source: Field Survey Data (2014)

Change in Poverty Level

To compare the levels of poverty before and after the microfinance loan intervention, two-sample test of proportions were explored. This is to indicate the impacts within the beneficiary group and between the latter and non-beneficiary group. As depicted in Table 5.9, the result revealed that there is reduction in poverty level by 8.2 percent for beneficiaries and by 4.8 percent for non-beneficiaries. The differences are not significant. However, these results are not unexpected because the proportionate hypotheses tests do not control the influence of other variables like demographic and economic variables. Also, the tests only consider before and after periods without the control and treatment effects. This justifies the need to proceed to the use of more comprehensive econometrics modelling as analysed in the subsequent sections of this study.

Table 5.9
Change in Level of Poverty (%)

Level of Poverty	**Before**		**After**		**Difference**		**P - Value**	
	B	NB	B	NB	B	NB	B	NB
Below USD 1.25 (Poor)	14.1	13.1	5.9	8.3	-8.2	-4.8	0.205	0.425

Source: Field Survey Data (2014)

Generally the analysis revealed that there is positive contribution of microfinance institutions towards the increase in the welfare of the households in the study area as a result of benefiting from microfinance programmes; but there is still need for improvement. This is in line with the findings of Morduch (1998). However, in order to

make Microfinance Institutions (MFIs) more effective in the rural poverty reduction and to reach the target poor in the rural areas, the Government should create more enabling environment by improving on the rural physical infrastructural facilities. Also, constant development of health and education facilities is required. All this would reduce the operational costs of MFIs and make their services in the rural areas more attractive and effective.

Moreover, MFIs should always adjust their loan terms and conditions towards the situation of their potential rural clients. For instance, short term loan and weekly repayment may not augur well for a rural peasant farmer whose harvesting period is seasonal and the crop gestation period is a bit long. In essence, MFIs should endeavour to make flexible client specific repayment schedules. In addition, MFIs can reduce the cost of operation and improve on Corporate Governance by recruiting the local educated people that can earn less than their counterparts in urban centers. Officers from local areas are expected to understand rural poverty better and should be able to convince the poor to join microfinance programmes.

5.3.2 Impact of Microfinance Loan on Poverty Alleviation (Model 2)

To recap, model 2 estimates the variables that determine the effect of microfinance loan on poverty alleviation in the study area. The model has poverty alleviation (poor=0 non-poor=1). To achieve this objective, the logistic model is used as discussed in equation 4.5.

Table 5.10 shows the estimated binary logit regression model. The results indicate that the likelihood ratio test is significant at 1 percent level (with p-value of almost zero), thus, we reject the null hypothesis which states that the parameters for the model are equal to zero. The estimated model correctly predicted 83.82 percent of the sample, and the general specification test shows that there is no evidence of mis-specification on the estimated model (with value of 0.385). All this testify to the fact that the independent variables can be used jointly to explain the impact of the microfinance loan on Poverty Alleviation.

The Impact of Microfinance Loan

The estimated results depicted in Table 5.10 indicate that the coefficient of Tistatus (DID estimator to explain the impact of microfinance loan before and after the treatment, as explained in Chapter 4) has positive sign with poverty alleviation and is significant at 1 percent level. The effect shows that the beneficiary of microfinance loan would have higher probability of reduction in poverty status by almost 12 percent than the non-beneficiary from the loan, other variables remain constant. This implies that microfinance loan is effective in reducing poverty. This result is consistent with various studies (for example, see Asghar, 2012; Green *et al*., 2006). It is important to note that the variables of time and microfinance status are the instruments of TiS and are mainly to serve as control for the effect of before and after, and treatment and control, respectively. Thus, no specific interpretation will be performed on these two variables. This also applies to Model 3 to 6.

The Impact of Other Variables

The health standard variable is significant at 1 percent level with negative sign. The marginal effect reveals that the overall health of the respondents has reduced the probability of getting higher poverty alleviation by 9 percent. This can be explained by the fact that the stress and challenges of the well to do entrepreneurs always have negative impact on their health standard as little or no time would be left for leisure and sports. The coefficient of Standard of Living is positive and significant at 1 percent level. This result shows that a proportionate increase in Standard of living would contribute to higher probability of the poverty alleviation by 11 percent. This result is consistence with the findings of Khandker (2005) and Okpara (2010) to mention just two.

Likewise, the Expenditure Per Head is significant at 1 percent level with positive sign. The effect of this result is that an increase in Expenditure per Head would induce higher probability of poverty alleviation by 33 percent. Also the household size variable is positive and significant at 1 percent level. This indicates that with one additional member of household there is probability of increase in the poverty alleviation of such household by 49 percent, other conditions remain same .This result shows that the larger the household size, the less the poverty status provided that such additional household member is in a working class and contributing positively to the household income.

The Dummy variables on Education show negative signs at different levels of significance. In general, this implies that compared to those without formal education, those with formal education (from primary school to higher education) have lower

probability of poverty alleviation. For instance the Primary Education Dummy (DPry) result is significant at 1 percent level and shows that respondents with primary education would have lower probability of poverty alleviation by 13.2 percent than those with no formal education. All this imply that attainment of higher education by Microfinance beneficiary tends to involve more resources and time and may affect the household's welfare adversely in the short run, as education attainment is not a guarantee to reduction in poverty.

Marital status dummies have positive signs and are significant at 10 percent. The dummy for married parent household (Dmarried) shows that changing the marital status from single to married among the respondents would increase the probability of poverty alleviation by 8 percent.

The result also shows that marital status of single parent household (DDWid) would result in probability of 9 percent higher in poverty alleviation than that of unmarried household. This indicates that those married households and single parent households usually have large size members of household which may increase the household's wealth if the additional members are contributing positively to the overall income.

Table 5.10

Logit Estimates for Impact of Microfinance on Poverty Alleviation

Dependent variable: PA

Independent Variables[c]	**Estimated Coefficients**	**Robust Standard Error**	**Marginal Effect**[a]
MFS	-0.982	0.195***	-0.183
HEST	-0.468	0.077***	-0.089
SL	0.572	0.033***	0.109
EPH	1.734	0.144***	0.329
TiS	0.667	0.242***	0.116
AG	0.054	0.044	0.010
[d]AG^2	-0.001	0.001	-0.000
HHS	2.572	0.392***	0.488
[d]HHSize2	-0.351	0.081***	-0.667
Ti	-2.021	0.172***	-0.373
Dummy variables[b]			
DPry	-0.644	0.179***	-0.132
DHiSc	-0.641	0.190***	-0.130
DND	-0.943	0.241***	-0.201
DHDUni	-0.708	0.243***	-0.147
Dmarr	0.396	0.200*	0.079
DDWid	0.535	0.288*	0.090
McFadden R-Squared (Pseudo R^2)			0.417
Correctly Predicted (%)			83.82
Log Likelihood			-857.549
LR statistics: Chi-Squares (Sig.)			1228.93
Degree of Freedom			16
Hatsq (p-value)			0.385
Total observations			2244

Source: Field Survey Data (2014)

Note

[a]Marginal effect is estimated at mean value and it has different interpretations for dummy variables.

[b] a dummy variable is dropped in each group in order to avoid a multicollinearity problem.

***=significant at 1%; **=significant at 5% level; *=significant at 10% level

[c] Dependent variable=1 if respondent is above poverty level and zero if otherwise.

[d]The squared variables are employed in order to avoid failure in the general specification test. Failure to include such variables can make the model to suffer from biased estimators of other parameters (Wooldridge, 2009)

Robustness Check for State and Loan Amount

The above results might be subjected to the omitting variable bias of state and loan amount as suggested by the examiners. Hence, consistency check was carried out by including the location variable (State Dummy) and loan amount. The influence of both variables did not change the overall estimates of the dependent variable (Poverty Alleviation) such as the impact of microfinance (Tistatus) is remaining positive and significant. While both State and Loan amount are significant, the former has negative relationship with poverty alleviation while the latter has positive relationship. This reveals that the higher the amount of microfinance loan, the higher the poverty alleviation and the less the poverty status. Detailed result is shown on page 326 (Appendice G).

The above analysis has confirmed that microfinance loan can have positive impact on poverty alleviation as hypothesized. This fulfils one of the objectives of the study. However, there is still need for government aid in order to make the poor people benefit more from the microfinance programme. For instance government needs to support the MFIs with funds that would be disbursed at concessionary interest rates. Also, more physical, social and economic facilities are needed to encourage the physical presence of MFIs in the rural areas so that microfinance impacts can be felt by the rural poor.

5.3.3 Impact of Microfinance Loan on Health Status (Model 3)

To recap, model 3 estimates the impact of microfinance loan on health status of the beneficiary. The dependent variable is the health status. This section discusses the results

of the empirical analysis of the impact of Microfinance loan on the Health status (as one of the dimensions of poverty) of the beneficiary; using the Ordered Logistic Model to analyse the impact. The Dependent variable is ranked into four categories (Very poor, Poor, Good and Excellent). This necessitates the use of the Ordered Logit as explained in Equation 4.6 to 4.10.

The Impact of Microfinance

Table 5.11 shows the empirical results of model 3.The coefficient of Tistatus (DID estimator to explain the impact of microfinance loan before and after the treatment) is negative and significant at 10 percent level. The marginal effect signifies that microfinance loan have reduced the probability of getting better overall health by 8 percent. Thus, the microfinance loan is not only ineffective in increasing the health status of its beneficiaries; it is damaging the general health status of the beneficiaries. This further confirms the earlier assertion that the rigors and anxiety experienced by the borrowers may have adverse effect on their health status. This result is consistent with the findings of Banerjee, Duflo, Glennerster and Kinnan (2014).

The Impact of Other Variables

Nutrition variable is positive and significant at 1 percent level. This result indicates that having adequate and timely food can improve the probability of health status by 14 percent.

Table 5.11
Ordered logit Estimates for Impact of Microfinance on Health Status
Dependent variable: HEST

Independent Variables[c]	**Estimated Coefficients**	**Robust Standard Error**	**Marginal Effect (Y=1)**	**Marginal Effect (Y=2)**	**Marginal Effect (Y=3)**	**Marginal Effect[a] (Y=4)**
MFS	0.322	0.144**	-0.000	-0.003	-0.072	0.075
NUT	0.597	0.128***	-0.001	-0.006	-0.134	0.141
HHS	0.435	0.078***	-0.001	-0.004	-0.097	0.102
BW	0.121	0.019***	-0.000	-0.001	-0.027	0.028
HHDS	0.364	0.115***	-0.000	-0.004	-0.081	0.085
HOA	0.325	0.152**	-0.000	-0.004	-0.071	0.074
AG	-0.018	0.006***	0.000	0.000	0.004	-0.004
TiS	-0.350	0.187*	0.000	0.004	0.076	-0.080
Ti	0.481	0.136***	-0.001	-0.005	-0.107	0.112
Dummy variables[b]						
DPry	0.376	0.152**	-0.000	-0.003	-0.086	0.090
DHiSc	0.944	0.152***	-0.001	-0.007	-0.219	0.227
DND	0.995	0.170***	-0.001	-0.007	-0.233	0.242
DHDUni	1.241	0.177***	-0.001	-0.009	-0.290	0.299
McFadden R-Squared (Pseudo R^2)			0.109			
Correctly Predicted (%)			65.35			
Log Likelihood			-1431.464			
LR statistics: Chi-Squares (Sig.)			350.10			
Degree of Freedom			13			
Hatsq (p-value)			0.485			
Total observations			2147			

Source: Field Survey Data (2014)

Note

[a]Marginal effect is estimated at mean value and it has different interpretations for dummy variables.

[b] a dummy variable is dropped in each group in order to avoid a multicollinearity problem.

***=significant at 1%; **=significant at 5% level; *=significant at 10% level

[c] Dependent variable=1 if respondent's health is very poor, =2 if poor, =3 if good, and =4 if excellent.

The findings also show that the variables, Household Size and Business Worth are positive and significant at 1 percent level. This indicates that additional member of household and proportionate increase in business worth can increase the probability of improvement in Health Status by 10 percent and 3 percent respectively.

The Household Disease and Hospital Admission are also positive with Health Status and significant at 1 percent and 5 percent level respectively. Proportionate increase in these variables can increase the probability of the Health status by 8.5 percent and 7 percent respectively. Although these findings are unexpected but an explanation for the result is that with financial resources, the illness can be promptly catered for to improve the health status. Age variable has negative sign and significant at 1 percent with negligible probability (0.4 percent). This result is expected because as one grows old, the health is bound to depreciate.

The Education dummy variables of Primary education, High School, National Diploma and Higher Diploma and University degree are positive and significant at 5 percent and 1 percent level respectively. This means that level of education enhances health knowledge and awareness which can facilitate better health status with the probability of 9 percent, 23 percent, 24 percent and 30 percent respectively when compared with those who possess no formal education.

The implications of these results are manifold. First, it implies that the terms and conditions of MFIs are obnoxious and not suitable to the loan beneficiaries particularly the rate of interest, the repayment terms and compulsory savings. Second, adequate health facilities are lacking from the government sector. Government should therefore improve its social welfare and effect adequate monitoring on the operations of MFIs.

5.3.4 Impact of Microfinance Loan on Standard of Living (Model 4)

To recap, model 4 estimates the impact of microfinance loan on the standard of living. This section discusses the results of empirical analysis on the impact of Microfinance loan on the Standard of Living. The model used Household Expenditure as a Dependent variable and proxy for Standard of Living as explained in Section 4.2.8 and Equation 4.11. The explanatory variable of interest is Tistatus (DID estimator to explain the impact of microfinance loan before and after the treatment). Table 5.12 depicts the result of the impact of Microfinance loan on Standard of Living. The overall results indicate that the linear regression model is estimated with R^2 of 0.33 which shows that 33 percent of the variance in Expenditure of the Household head (proxy for Standard of Living) can be explained by the explanatory variables jointly. All the independent variables in the model are significant except the Tistatus. The F statistic of the model is 73.71 percent with p-value of almost zero. This shows that the model is significant and appropriate to be used to evaluate the impact of Microfinance loan on standard of living of rural household in the study area. The p-value of "hatsq" is 0.963 and this indicates that the model is correctly specified and there is no evidence of general specification error in the estimated model statistically. Variance inflation factor (VIF) mean score is 1.11 which is less than 10, and the highest value of VIF is 1.23. This affirms that the model is not subjected to serious multicollinearity problem.

The Impact of Microfinance

The result predicts that availability of microfinance loan would increase the Household Expenditure by 0.106 unit. However, this positive effect is not significant. This

unexpected result can be explained by unfavourable conditions usually given by MFIs to their creditors. For instant, MFI customers always complain of immediate loan repayment with compulsory savings. Weekly instalment payment for debt without moratorium may compel the beneficiary to dig into his working capital or use his previous savings to settle microfinance debt. The conditions which include compulsory savings and weekly installment from the first week of the loan disbursement can cause untold hardships for the beneficiaries particularly the rural poor entrepreneur who is new in the business. This may not be favourable to the household's living standard. The finding is consistent with that of Dunn and Arbuckle Jr. (2001) who carried out similar study in Peru on the impacts of microcredit on the poor.

The Impact of Other Variables

As shown in Table 5.12, increase in household's Cooking Fuel would increase the Household Expenditure by 0.192 and this positive effect is significant at 1 percent level. Also a proportionate increase in Household electricity consumption would lead to increase in Household Expenditure (Standard of living) by 0.201 with 1 percent level of significance. Likewise, increase in the procurement of Floor material for the Household would increase the Household Expenditure by 0.152 and this is significant at 5 percent. At 1 percent level of significance, increase in Household Assets and the Size of the Household would increase the Household Expenditure by 0.147 and 0.415 respectively. And being a male household head beneficiary would increase the Household Expenditure by 0.260 greater than female counterpart with 1 percent significant level. The results further predict that a year increase in Age would increase the Household Expenditure by

0.009 with 1 percent level of significance. The dummy variable for single parent household also has positive relationship with the Household Expenditure. Being a single parent household would have higher Household Expenditure by 0.282 unit as compared to married or single household. The dummy variables for education are also positive and significant at various levels. The result signifies that the more education one has, the higher the Household Expenditure when compared with the respondent with no formal education.

Table 5.12
Results of Regression model on the Impact of Microfinance loan on the Standard of Living of Rural Household
Dependent variable: Exp

Explanatory Variables	**Estimated Coefficients**	**Robust Standard Error**	**P- Value**
MFS	-0.195	0.063***	0.002
CkFuel	0.192	0.046***	0.000
Elect	0.201	0.061***	0.003
FlrMat	0.152	0.072**	0.049
ASS	0.147	0.023***	0.000
HHS	0.415	0.037***	0.000
Mal	0.260	0.044***	0.000
AG	0.009	0.003***	0.001
TiS	0.106	0.086	0.220
Ti	0.079	0.061	0.209
Dummy Variables[b]			
DDWid	0.282	0.087***	0.001
DPry	0.127	0.061*	0.092
DHiSc	0.127	0.065*	0.089
DND	0.497	0.082***	0.000
DHDUni	1.031	0.088***	0.000
R-Squared			0.331
F-Statistics			73.71
p-value			0.000
Hatsq(p-value)			0.963
Vif (mean)			1.11
Total observations			2252

Source: Field Survey Data (2014)
[b] a dummy variable is dropped in each group in order to avoid a multicollinearity problem.
***=significant at 1%; **=significant at 5% level; *=significant at 10% level

Generally, the results show negligible impact on Standard of Living as a result of being a beneficiary of Microfinance loan. This unexpected result can be attributed to the fact that

the impact of microfinance loan is not so significant to the extent of improving the overall living standard of the beneficiary, especially; when improvement of standard of living requires a long time effort.

The results of the above estimated model indicate that microfinance alone cannot make substantial contribution to the improvement of the standard of living of the poor. Government is therefore implored to take adequate measures that would provide required capabilities like free and qualitative education, highly subsidize health facilities, enhanced food production policies, state of the earth infrastructure, well remunerated employment and the likes. These measures are expected to improve the standard of living of the poor; particularly those who live in the rural areas.

5.3.5 Impact of Microfinance Loan on Expenditure Per Head (Model 5)

To recap, model 5 estimates the effect of microfinance loan on the consumption of each member of the household that benefited from the microfinance programme. This section enumerates the outcome of the empirical analysis of the impact of Microfinance loan on the household expenditure per head. To achieve this objective, Multiple Regression Analysis was used in order to predict the average influence of the explanatory variables on the dependent variable as stated in equation 4.12. The estimated results for the Regression model are presented in Table 5.13.

The Dependent variable for this model is the natural log of the Expenditure per Head (EPH). Natural log (ln) is used here in order to meet the general specification test statistically (see for example, Wooldridge, 2009: 301-303).

Overall, the model rejects the null hypothesis that the parameter estimates for the model are all equal to zero, at the 1 percent level of significance. To this end, the coefficients of the independent variables can be used jointly to explain the impact of Microfinance loan on the Household Expenditure per Head. The Linear Regression model is estimated with R^2 of 0.27; this implies that 27 percent of the variance in Expenditure per Head can be explained by the independent variables jointly. The F-test statistic of the model is 71.47. All this testify to the fact that the model is appropriate to be used to estimate the impact of Microfinance loan on the Expenditure per Head; which is another dimension of measuring poverty alleviation through Microfinance loan. In addition, the p-value of "hatsq" is 0.799 while the mean of VIF is 1.15 (with the highest value of VIF of 1.20). These measures confirm that the model is well specified and without influence of a serious multicollinearity.

The Impact of Microfinance Loan

Although the explanatory variable of interest, Tistatus (DID estimator to explain the impact of microfinance loan before and after the treatment) is positive, the variable is not significant in the model. This result tends to the same direction with that of the previous section on Household Expenditure and the same explanation goes that this anomaly is possible in view of the obnoxious conditions inflicted by MFIs on their debtors.

The Impact of Other Variables

As indicated in Table 5.13, the result predicts that an increase in Income would increase the Expenditure per Head by 14.3 percent. This positive effect is significant at 1 percent

level. In the like manner, a proportionate increase in the Business Worth of the Microfinance loan Beneficiary would increase the Household Expenditure per Head by 3.6 percent with 1 percent significant level. These findings suggest favourable impact of the loan on the Beneficiaries.

The results further indicate that one increase in the male respondents would have higher Household Expenditure per Head by 12.6 percent unit than female and it is significant at 1 percent level. The dummy variables on the marital status is significant at 1 percent level such that the married parent household and single parent household would have lower Expenditure per Head by 26.5 percent and 20.8 percent unit respectively when compared with that of single person household. This result is not unexpected as increase in the household size will always reduce the per capita expenditure if there is no commensurate increase in income.

The results reveal that although microfinance loan has the potential of increasing the expenditure of each member of household of its beneficiary, the increase may not be so high to reach the significant level statistically; particularly those who live in rural areas. However the government should take measures that would improve this situation by embarking on necessary subsidies expected to reduce the cost of production of poor entrepreneur. When the cost of production is reduced, the profit is expected to increase. This will in turn release enough fund for the increase in the household's expenditure per head.

Table 5.13
Results of Regression Model on the Impact of Microfinance loan on Household Expenditure Per Head
Dependent variable: EPH

Explanatory Variables	Estimated Coefficients	Robust Standard Error	P- Value
MFS	-0.062	0.027**	0.024
INC	0.143	0.001***	0.000
BW	0.036	0.004***	0.000
ASS	-0.012	0.010	0.205
HOA	0.015	0.026	0.619
Mal	0.126	0.020***	0.000
TiS	0.015	0.038	0.698
Ti	0.067	0.027**	0.021
Dummy Variables[b]			
DDWid	-0.208	0.047***	0.000
DMarr	-0.265	0.033***	0.000
DHDUni	0.043	0.027	0.114
R-Squared			0.266
F-Statistics			71.47
p-value			0.000
Hatsq(p-value)			0.799
Vif (mean)			1.15
Total observations			2178

Source: Field Survey Data (2014)
[b] a dummy variable is dropped in each group in order to avoid a multicollinearity problem.
***=significant at 1%; **=significant at 5% level; *=significant at 10% level

5.3.6 Impact of Microfinance Loan on Income of Household Head (Model 6)

To recap, model 6 estimates impact of Microfinance loan on the income of the head of household. This is another dimension of assessing the impact of Microfinance on Poverty. Multiple Regression Model was used for the estimates. As stated in Equation 4.13, the income of the Household head served as the dependent variable.

The overall results specified a R^2 of 0.58 which implies that 58 percent of the variance in Income can be explained by the explanatory variables jointly. With 1 percent level of significance, the model confirms that the null hypothesis which states that the parameter estimates for the model are all equal to zero should be rejected. Hence the model should

be considered as appropriate to estimate the impact of microfinance loan on the Income of the Household Head. The p-value of "hatsq" is 0.113 and this attests to the fact that the model is correctly specified statistically. The Variance Inflation Factor (VIF) mean score is 1.45 (with the highest value of VIF of 1.68). This certifies that there is no evidence of serious multicollinearity and general specification error in the estimated model.

The Impact of Microfinance

The results reveal that the Tistatus (DID estimator to explain the impact of microfinance loan before and after the treatment), is positive and significant at 1 percent level. This variable shows that increase in the rounds of obtaining microfinance loan would increase the income of the beneficiary by 0.20 unit. This reveals the effectiveness of microfinance loan in increasing the income of its beneficiaries.

The Impact of Other Variables

Furthermore, proportionate increase in Household member employment would increase the Income of the Household head by 0.104. This can be a source of additional household income that can augment the income of the head. Increase in the Assets acquired would reduce the Income of the Household head by 0.381. An explanation for this situation can be linked to a situation where the head of the household is new in business without accumulated assets. He may be compelled to dig into the capital of the business to make further investment on assets for the business. As a result of low resources, the substantial part of the credit may even be diverted into consumption, in this scenario, the income of the household is not expected to increase during this period (Chen & Dunn, 1996). This

result is consistent with the findings of Coleman(1999) which concludes that village bank loan in Northeast Thailand had little impact on the rural poor that obtained the loan. Also, similar study conducted in rural Punjab by Bansal (2010) concludes that the extremely poor beneficiaries of microfinance programmes whose income was below the poverty line before the loan could not cross the poverty line even after the utilization of the loan.

As shown in table 5.14, increase in the household size would increase the income of the household head by 0.067 with 5 percent level of significance. This might result from cheap labour of additional person joining the household. Male is found to have higher income by 0.115 unit compared with the female counterpart. While an additional increase in age would also aid in increasing the income by 0.005 unit. The result can be attributed to the experience and skill in entrepreneurship. A proportionate increase in standard of living would result in increasing Income of household head by 0.385 other variables remain constant. This is significant at 1 percent level. This may be explained by the fact that standard of living can boost income and vice versa.

The results in Table 5.14 further shows that increase in the dummy variables in the marital status like married and single parent household would have higher income by 0.272 unit and 0.284 unit, at 1 percent, than single household. Conversely, dummy variables on education predict that increase in education level from Primary to University would reduce the Income of the household head. This can be explained by the expenses incurred on education and time consumed without adequate compensation.

Table 5.14

Results of Regression Model on the Impact of Microfinance Loan on Income of Household Head

Dependent variable: INC

Explanatory Variables	Estimated Coefficients	Robust Standard Error	P- Value
MFS	-0.681	0.055***	0.000
HHEmp	0.104	0.037***	0.003
ASS	-0.381	0.023***	0.000
HHS	0.067	0.036**	0.037
Mal	0.115	0.037***	0.002
AG	0.005	0.003**	0.029
SL	0.385	0.008***	0.000
TiS	0.200	0.073***	0.006
Ti	0.035	0.052	0.511
Dummy Variables[b]			
DDWWid	0.284	0.092***	0.002
DMarr	0.272	0.064***	0.000
DPry	-0.230	0.059***	0.000
DHiSc	-0.340	0.061***	0.000
DND	-0.421	0.071***	0.000
DHDUni	-0.287	0.071***	0.000
R-Squared			0.581
F-Statistics			206.34
p-value			0.000
Hatsq(p-value)			0.113
Vif (mean)			1.45
Total observations			2250

Source: Field Survey Data (2014)

[b] a dummy variable is dropped in each group in order to avoid a multicollinearity problem.

***=significant at 1%; **=significant at 5% level; *=significant at 10% level

The above results show the significant part of Income as a dimension of poverty. The estimated model testifies to the fact that microfinance loan can cause increase in poverty alleviation. However, it should be understood that for the income to adequately reduce the indices of poverty, it would have to be substantial. The government needs therefore to provide conducive investment environment and employment opportunities for adequate income generation and economic development.

The above regression analyses consider a set of household characteristics and the treatment variable in each model to control the observed differences between the microfinance loan beneficiaries and non-beneficiaries.

5.4 Microfinance Impact Assessment Using Propensity Score Matching (PSM) Method

This section presents the further analysis of the impact of microfinance loan using PSM approach in order to evaluate the potential existence of selection bias which may affect the estimation of the impact of microfinance loan.

The results of the five models analysed through the PSM in this study show that the optimum number of blocks and the balancing properties of the variables are satisfied.

The summary of the PSM result is presented in Table 5.15.

Table 5.15
PSM Approach on the Impact of Microfinance loan

Model	Impact of microfinance loan on:	Observations: Treated/Control	ATT	Std Error	t
2	Poverty Alleviation	1176/1070	-0.111	0.020	-5.565
3	Health Status	582/1068	0.084	0.028	3.003
4	Standard of Living	585/1079	-0.306	0.069	-4.465
5	Expenditure per Head	594/1078	-0.140	0.034	-4.071
6	Income	590/1074	-0.515	0.056	-9.146

Source: Field Survey Data (2014)

The third column in Table 5.15 shows the number of observations that successfully matched by PSM: 1176 loan beneficiaries (treated group) were matched with 1070 non-beneficiaries (control group). The fourth column shows the Average Treatment effect on the Treated (ATT). The negative value of ATT (non-beneficiaries versus beneficiaries) indicates that those who benefitted from microfinance loan have higher probability of

poverty alleviation by 0.111 unit than their counterpart that did not receive the loan. This result is statistically significant as shown by the t-test (in t column). The ATT for poverty alleviation is consistent with the estimated impact of Model 2 (page 185) such that loan beneficiaries have lower poverty than non-beneficiaries.

The second row shows that 582 microfinance loan beneficiaries are matched with 1068 non-beneficiaries and the outcome indicates that the former are worse off in health status by 0.084 unit than the latter who serve as control. This result is also statistically significant. The ATT result is in line with the estimated impact of Model 3 (page 188) which affirms that loan beneficiaries are worse off in health status when compared with their counterparts that did not benefit from the loan programme.

On the impact of Microfinance loan on Standard of living, 585 members of treatment group (loan Beneficiaries) were matched with 1079 members of control group (non-beneficiaries). The result shows that the loan beneficiaries have fewer standards of living by 0.306 unit when compared with the non-beneficiaries. The ATT result complies with the estimated impact of Model 4 (page 192) such that the loan beneficiaries have insignificant level of standards of living when compared with the non-beneficiaries.

On the Expenditure per Head (EPH) impact, 594 members of the treated group were matched with 1078 members of control group. The result indicates that the loan beneficiaries have less EPH of 0.140 unit than their counterpart group. The ATT for EPH supports the estimated impact of Model 5 (page 196) which concludes that the loan

beneficiaries have insignificant level of expenditure per head in a household when compared with non-beneficiaries.

Also, 590 loan beneficiaries were matched with 1074 non-beneficiaries under the income of household head. It was discovered that the treated members (loan beneficiaries) have more income of 0.515 unit than the control (non-beneficiaries) members. The ATT result on income is consistent with the estimated impact of Model 6 (page 199) such that the microfinance loan beneficiaries have more income when compared with their counterparts that did not receive the loan.

The PSM results are in the same direction with that of preceding analyses on the impact of microfinance. This confirms that the estimated impacts of microfinance loan are not subjected to the selection bias. Thus, the selection bias should be at its minimum level.

5.5 Discussion with Microfinance Operators (Interviews)

This section presents the outcome of the interviews conducted with the operators of 14 Microfinance Banks located in different parts of the study area. This exercise was facilitated by the need to validate the data collected from the respondents. It is also expected to instill more confidence in the findings and further clarify the knowledge on the evaluations of microfinance programmes in the study area.

The discussions were bothered on commencement of operations of each Bank, Government efforts to assist the institutions, training and interactions with the

beneficiaries, rate of interest and repayment, type of collateral requested (if any) from clients, repayment period of outstanding loan, problems encountered from the customers, and procedures taken to smoothen microfinance operations. Details of the Questionnaire and interview questions are presented in Appendices D and E respectively.

The outcome of the discussions revealed the following:

(i) Commencement of Operation

It was discovered that the commencement of operations by the banks ranged from 1985 to 2011. Majority of them have more than ten years' experience in operation and solicit for clients through aggressive marketing.

(ii) Loan Application Procedure

Information gathered from the operators revealed that applications were rejected mainly because the applicants could neither provide collateral securities nor qualified guarantors for the loan. This is one of the qualitative factors that prevent the accessibility of Microfinance loan to the rural poor who want to commence business for livelihood. To secure loan by such applicants may be difficult if not impossible.

(iii) Efforts needed from Government to make microfinance loan effective

Further discussions with the operators of Microfinance Banks (MFBs) in the study area revealed that although the Central Bank of Nigeria (Apex Bank that supervises and controls Banks and other financial Institutions in Nigeria) gives Operations and Management Guidelines and Policies to Microfinance Banks; their modes of operations

are not the same. For instance, while some MFIs request collateral from their clients, others demand for Guarantors' open cheque before loan approval. In addition, some MFIs request for group formation. This lack of uniformity in operation shows the lapses in CBN's monitoring and control. "Government should encourage microfinancing in Nigeria by creating enabling environment for both MFIs and SMEs to thrive in the rural areas" says one of the participants.

(iv) Interest Rate.

The interest rates charged by MFIs are not uniform. While some of them charge 10 percent on loan disbursed, others charge their clients as high as 21 percent; depending on the approved amount. On why some of them charge so high, most of the participants claimed that they charge commercial rates because the government was not subsidizing the loan. Hence, the cost of capital is high and they have to transfer same to the beneficiaries.

On the sources of loanable funds, the operators lamented that there was no assistance from the government. The loans were mainly sourced through equity, hence the high interest rates were charged. Since the Government is not subsidizing, they would have to charge competitive rates in order to pay their creditors and make returns to shareholders. "We always plead to Government to assist the MFIs with sufficient fund to enable us serve the poor" says one of the interviewees.

(v) Training of clients on Entrepreneurship and Book-Keeping

The investigations also confirm that while some Microfinance operators conduct trainings for their clients, others do not. This area is expected to be encouraged by the government in collaboration with microfinance operators for the efficient use of funds, timely loan repayment and positive impacts on the microfinance loan beneficiaries; particularly, the rural poor.

(vi) Loan Repayment Period

With regards to mode of loan collection, it was revealed that collections were made on daily basis in some cases, it is on weekly basis for certain clients while others collect monthly installments depending on what the loan is used for. The maximum collection period is usually one year. This confirms that Microfinance loan is short term loan.

(vii) Problems encountered with the clients

The Microfinance operators also revealed that at times their clients divert the loans for personal use and to solve private problems instead of using it for investment. This always makes the loan repayment difficult. According to one of the operators "some of our clients make poor use of the loan which delays the loan repayment".

(viii) Source of Operation Procedures

According to the microfinance operators, the major sources of their operations are the Central Bank of Nigeria's directives and Management guidelines. More skill and

experience is therefore required through periodic training, Research and Development (R & D).

5.5 Summary

Descriptive analysis of the study showed that apart from the demographic factors like age, gender, income of household head and household size; all other socio-economic factors have significance difference between the loan beneficiaries and non-beneficiaries. The average loan collection period is almost three months while most of the loans disbursed are repaid installmentally on weekly basis. Age, Business Worth, Skill, Assets, Health Status, Living standard, income, education and marital status are found to be statistically significant (with different signs) in accessing microfinance loan by the rural poor. These findings are similar to some of the studies reviewed in the previous chapter. Impact evaluation is presented in cross-tabulations and supplemented with qualitative analysis and comprehensive econometric models. These analyses give further clarifications on the findings. The results revealed that microfinance programmes in Nigeria are yet to achieve the main objective of poverty alleviation as their counterparts in Asian and other developed economies.

CHAPTER SIX

SUMMARY AND RECOMMENDATIONS

6.0 Introduction

This chapter gives the summary of the research study. The objectives of the study together with data analysis and findings are summarized in Section 6.1. Section 6.2 enumerates the implications of the study. The limitations of the research work are discussed in Section 6.3; while Section 6.4 gives the recommendations for future research work on the subject matter. Section 6.5 concludes the chapter.

6.1 Summary and Major Findings

Nigeria is blessed with enormous human and capital resources. The country is one of the largest countries in Sub-Saharan Africa and the black world that has recorded rapid economic growth in the past two decades. Despite these accolades, the country is inflicted by the paradox of growth "poverty amidst plenty". This is reflected in the statistics that confirm that over 70 percent of Nigerian population is poor (see Table 1.2). As a remedy to this situation Government of Nigeria introduced several development measures, policies and programmes to alleviate poverty; but all to no avail as the number of poor people continued to escalate. One of these development strategies is microcredit through Microfinance Institutions. But the empirical findings on the impact of microfinance around the globe are mixed and several reasons were given for this

scenario. For instance, those who support the positive impact of microfinance programmes on poverty alleviation allege that the discovery of the researchers in the other camp lack the comprehensive methodology to truly assess the impact of microfinance. On the other hand, those who discover inadequacies with the microfinance programmes opine that the proponents of the programmes are ambitious. It is therefore glaring that the available literature on the assessment of microfinance programmes does not provide clear cut results about the effects and achievements of MFIs. This scenario portends that there is need for further studies on the impact of microfinance on the rural poor particularly in the Southern part of Nigeria where there is dearth of comprehensive studies on the subject matter. It is based on this assertion that the current study is set to evaluate the impact of microfinance on the rural poor in South-West Nigeria and identify the problems and prospects of the programme.

The main objective of this study is to determine the factors that influence the accessibility of the poor to participate in microfinance programme; and evaluate the impact of Microfinance loan on the poverty alleviation of the poor borrowers in Nigeria through the improvement on poverty alleviation, health status, standard of living, household consumption and income of the household head.

To achieve the objectives of the study, primary data were collected between July and September, 2014 from the study area: South-West Nigeria. The study adopted stratified sampling technique to collect cross-sectional data through the structured questionnaire. Three states (Ogun, Oyo and Osun states) were selected out of six states in the

Geographical zone. 1,170 Questionnaires were distributed to the respondents out of which 1,136 were collected from the sampled respondents. 1,134 were effectively used for the analyses; comprising 594 loan beneficiaries and 540 non-beneficiaries. Descriptive analyses of the demographic and socio-economics characteristics of the data collected were carried out. In addition, statistical test like t-test was used to test whether the mean values of the characteristics of the two groups of the respondents (beneficiaries and non-beneficiaries) are statistically different. The analysis of the data collected reveals that the gender distribution of the respondents reflects the population of the country with 53 percent male and 47 percent female. The data show that most of the respondents are literate, with about nine year's business experience on average.

A cursory look at the impact of microfinance is described through the cross-tabulations of some of the key variables in the study. It was discovered that microfinance beneficiaries in the study area have higher level of education, more household size, record more sales and income; than their counterparts that did not benefit from the loan. Furthermore, analysis of poverty level reveals that there is reduction of poverty level by more than eight percent in the study area.

For the data analysis, the study explored applied econometric techniques for development economics like Multiple regression, Logit regression models and Difference-in Differences (DID) approach. The DID approach is able to clarify the impact of microfinance programme in the study area by relating the beneficiaries of microfinance (treatment group) loan with non-beneficiaries (control group) before and after the

treatment, in order to show the average treatment effect on the treated (ATE). In addition, Propensity Score Matching estimators were used to evaluate the potential selection bias in the models.

The findings of the empirical analyses are summarized as follows:-

On objective one which is to estimate the accessibility of the poor to microfinance loan, the study discovers that on average it took up to three months for the MFIs to approve loan for the beneficiaries while the loan is short term and repayable on weekly instalments in most cases. The identified factors that determine the accessibility to the loan include age, business worth, health status and living standard. Variables like skill of the applicant in entrepreneurship, assets, income, dummies for education and marital status have negative relationship with microfinance access. From the non-beneficiaries of microfinance loan in the study area, it was gathered that their applications were turned down because of inadequate security (collateral) and lack of reliable surety. In general, the study concludes that inaccessibility to microfinance loan by the poor is mainly caused by the MFIs' terms and conditions. This view is supported by the findings of Atieno (2001) and Umoh (2006) among others. Government is therefore implored to pay more attention to the operations of MFIs in order to reduce poverty in Nigeria. Also, there is the need to assist the rural poor with micro-credit that would be disbursed with concessional interest rates without collateral conditions.

To achieve objective two, the study further examines the contributions of microfinance loan to poverty alleviation in the study area through the use of DID estimator. It was

discovered that microfinance loan has favourable contributions to poverty alleviation in the study area. This is in line with the expectation of the study. While variables like living standard, earnings per head and household size have positive relationship with poverty alleviation, health standard is negatively related; at different levels of significance. This conforms to the expectation and fulfils one of the objectives of the study. However, there is still need for government aid in order to make the poor people benefit more from the microfinance programme. Government should support the MFIs with funds that would be disbursed at concessionary interest rates. In addition, provision of more physical, social and economic facilities would encourage the establishment of more MFIs in the rural areas.

Objective three is achieved by using DID estimator (the average effect of the treatment on the treated) to evaluate the impact of microfinance loan on poverty dimensions in terms of health status, standard of living, expenditure per household head and household income.

The analysis of the impact of microfinance loan on health status revealed that the programme did not make improvement on health status of the beneficiaries in the study area. This unexpected result was adduced to the rigours of loan repayment and unfavourable conditions of MFIs in the study area. Government should lessen the burden of loan beneficiaries by procuring cheap money for the MFIs so that the latter could charge moderate rate of interest and review the repayment terms and other unfavourable

conditions. Also, there would be need for the provision of adequate health facilities by the government. In essence, government should improve its social welfare to the poor.

Other control variables like nutrition, household size, business worth, household disease and household admission are positive and significant to health status, except the age of the household head which is negative.

Assessment of the impact of microfinance loan on the standard of living shows that the loan is not significantly contributing to the living standard of its beneficiaries in the study area. Other control variables like cooking fuel, electricity consumption, floor material and assets have positive relationship with standard of living and are significant at various levels. This result is contrary to expectation. It clearly indicates that microfinance alone cannot make adequate contribution to the improvement of living standard of the poor. Government should therefore take adequate measures to provide qualitative education, affordable health facilities, mass production of food items, housing scheme for low income earners, pipe-borne water projects and employment generation programmes. It is expected that these measures would improve the standard of living of the poor; particularly the rural dwellers.

The measurement of the effects of microfinance loan on the expenditure per member of household (another dimension of poverty) was carried out. It was discovered that microfinance loan is not statistically significant on the expenditure per head in a household of its beneficiary. Other variables like income of the household head, business-worth and gender have positive relationship with household expenditure per head and are

statistically significant at 1 percent level. This result is unexpected. Although microfinance loan has the potential to increase the expenditure of each household member, the increase may not be so much to be statistically significant. The onus is now on government to implement policies that would improve this situation. Provision of uninterrupted electricity and other production inputs at subsidized rates would make difference. Other things being equal, when the cost of production is reduced, the profit is expected to rise. This will pave way for the increase in the household's expenditure per head.

The study further analysed the impact of microfinance on the income of the household head, which is another dimension of poverty. The result revealed that microfinance loan has positive impact on the income of its beneficiaries and is significant at 1 percent level. Other variables that serve as control in the model like household members' employment, household size, gender, age and standard of living are significant and have positive relationship with the household income; except the household assets which have negative coefficient. This result testifies to the contribution of microfinance loan in poverty reduction as expected. Moreover, all hands must be on deck to alleviate rural poverty. The government needs therefore to provide conducive investment environment and employment opportunities for adequate income generation and economic development in the rural sector.

Generally, the results from the impact assessment of microfinance loan on the poverty dimensions suggest that microfinance programmes make positive impacts on most of the

variables tested. The findings revealed that microfinance loan has favourable impact on poverty alleviation in the study area. On the other dimensions of poverty, the programme did not really improve the health condition of the beneficiaries. However, from the analyses, it was discovered that the loan facility does not improve the standard of living of the beneficiaries when compared with non-beneficiaries. Also, the results indicate that participating in microfinance programme does not increase the expenditure of the household members significantly. However, the income of the households increase as a result of obtaining microfinance loan. These results are in line with similar study carried out by Banerjee,*et al*. (2014) in Hyderabad, India. Their findings conclude that microfinance has no significant impact on Health, education and household consumption of the poor.

The results of the PSM estimators proved that the findings are not affected by the selection bias, by revealing similar outcomes. The overall results have indicated that the poorest are not able to access microfinance loan as expected, as a result of this, it has minimum impacts on the rural poor in the study area. The findings are consistent with results of similar studies of Coleman (1999), Bansal (2010) and Abraham (2015).

6.2 Implications of the Study

The findings of this study have implications for Academics, Policy makers and Microfinance institutions.

For Academics, this study is able to classify the factors that determine the accessibility of the poor into two parts: demand and supply factors. On the demand side are variables like

age, business worth, skill in Entrepreneurship, education, marital status, Assets, health status, standard of living of household and monthly income of household head. Nearly all these variables are found to be statistically significant including business worth which is not included in the similar studies reviewed in Sub-Saharan Africa. Business worth therefore serves as a pure academic contribution of this study since it is rarely used in similar studies in Africa. The two notable cases where business worth were used for similar studies are in Thailand (Coleman, 2006) and Bangladesh (Husain, 1998). Also, the findings on microcredit accessibility are in line with that of Yusuf and Shirazi (2013), Arun *et al*. (2006), Ashraf and Ibrahim (2014), Balogun and Yusuf (2011); and Obisesan and Akinlade (2013). On the supply side of credit accessibility, this study is able to identify institutional factors like high interest rate, cumbersome procedure in loan processing, delay in loan approval, demand for collateral, surety before loan approval and unsatisfied demand/supply gap. These findings support that of Abu-Hadi *et al*. (2013), Dimoso and Masanyiwa (2008) and Siyad, (2013). This confirms the literature contribution of the study.

The present study on the impact assessment of microfinance loan on poverty reduction explore the use of econometric methods of Multiple regression, DID, PSM and other categorical and limited dependent variables to test empirical models of MPI, HEPM, CA; and RETRAFECT survey methodology, in order to confirm the assertion that microfinance serves as a development strategy to alleviate poverty. This is contrary to most of the previous empirical studies on the impact of microfinance that used only one

method in analyzing their data. These are the methodological and theoretical contributions of this study.

For the empirical contribution, most of the dimensions of poverty like poverty alleviation, standard of living, health status, education, marital status, household expenditure and household head income together with some control variables are used in the analyses. The outcome of the study revealed that the impact of microfinance loan on the beneficiaries is positive but needs improvement to enhance adequate welfare for the rural poor in Nigeria. The findings are in line with that of Adams and Von Pischke (1992), and Weiss, *et al*. (2003).

For policy implications, this study has identified that poverty in Nigeria is a rural phenomenon; the Government is therefore implored to create an enabling environment for MFIs in the rural areas in form of physical, economic, financial and social facilities. This view agrees with Diagne and Zeller (2001) that stipulates among other things that, having access to microcredit by the rural poor may not yield successful results without the provision of necessary infrastructural facilities and human capital development. All this would reduce the operational costs of MFIs and make their services in the rural areas more attractive, to penetrate the villages and reach the core poor for patronage.

To enable MFIs achieve the objective of poverty reduction, the Government should intensity efforts in their supervisory and regulatory functions of the Institutions that will smooth their operations. Efforts should be geared towards the provision of supportive

services like education and training on entrepreneurship, increase in health facilities and provision of other social services for unemployed, poor and those who are vulnerable to poverty.

Considering the success made by microfinance programmes to reduce poverty in other parts of the world, Nigerian Government needs to take pragmatic measures to combat poverty. To this end, it should be noted that poverty is multidimensional; likewise, its solution should also be multiple programmes. Government should therefore wage unending wars against poverty. It is not just enough to reduce poverty but concerted efforts should be made to prevent it. This can only be achieved through proactive measures and multiple programmes, projects and policies that are compatible with the development of the economy. In addition the apex bank - Central Bank of Nigeria (CBN) should properly regulate MFIs. To ensure that the poor that was denied accessibility to finance by the commercial banks due to lack of collateral and regular income is able to obtain loan through microfinance programme, CBN should source adequate funds and disburse same at concessional rates to the MFIs. This is expected to encourage the latter to give micro-credits at lower rate of interest to the poor.

Microfinance loan is supposed to be accessible to only the poor and downtrodden. This study shows that only 14.1 percent of the beneficiaries in the study area were below the poverty line, the remaining 85.9 percent were above the poverty line. This reveals that the microfinance programmes were not adequately reaching the target poor. The government

should improve on monitoring and control of MFIs with proper guidelines that would ensure that micro-credits actually get to the poor people.

To make provision for unforeseen calamities that can easily derail the poor people from crossing the poverty line, there is need for micro-insurance that would even provide support for timely loan repayment. To this end insurance for the poor that benefited from microfinance programme would enhance their welfare and ensure even development.

The issue of involving the poor in planning and implementation of the poverty programmes is also very germane in realizing the basic objectives and positive impacts. This will curb the misplacement of priority and favouring the non-poor at the expense of the target poor. Experience in Nigeria and other developing countries have shown that politicians and the "big whips" always hijack laudable poverty reduction programmes like microfinance programmes and turn themselves to beneficiaries instead of the target poor (for example, see Coleman,1999; Joseph & Imhanlahimi, 2011).

Efficient implementation of poverty alleviation programmes requires disciplined and transparent operators that will shun corruption and encourage proper accountability. For government to achieve its objectives of such programmes, it should sanitise the existing handlers and entrust the leadership of the new development programmes to the hands of transparent and dedicated officers. As good governance entails fair and honest government administration. Government should embark on comprehensive capacity building for the handlers of microfinance banks after the identification of the skills- gap

that would reposition them to meet the challenges in this sector. Adequate training programme should be built for microfinance operators with full re-orientation that would enhance the core microfinance delivery model.

Adequate funding of microfinance banks is sine qua non to poverty alleviation. Government should organize enough cheap funds to the sub-sector. At least one percent of the government's annual budget should be earmarked for microfinance banks for on-lending to their ever increasing poor clients. In addition, MFIs should have access to the 10 percent of Small and Medium Enterprise Equity Investment Scheme (SMEEIS) fund (Thom-Otuya & Chukuigwe, 2014).

Furthermore, Bureau of Statistics should conduct routine National Living Standard Survey at short intervals. This will give constant check on poverty level in the country and also provide current data for the researchers who are interested in measuring the impact of Government intervention programmes on poverty alleviation or the progress on Millennium Development Goals (MDGs). This can only be possible with adequate funding of the Bureau agency. Procuring current and reliable data bank can further enhance even development in the economy, noting that development occurs when the economy is able to improve and sustain the standard of living of the people. Suffice to say that economic growth does not connote economic development. That is, there can be growth without development. It is therefore pertinent to state that development in a country means reduction in the level of poverty, inequality and unemployment without prejudice to economic growth (Anger, 2010).

Government should shun the issue of "politicisation" of poverty alleviation programmes; where poverty alleviation programmes are formulated based on the political campaign without considering the financial implications and the continuation of the former policies that have matured to yield fruitful results. As observed, some of the poverty alleviation programmes by previous administrations are always cancelled by the new administration, and the new ones are introduced to score political points. This lack of continuity has retarded the economic growth and made most of the poverty alleviation policies ineffective. In fact, the government should always include specific expression of poverty alleviation objectives in the national development plans and enumerate clearly, the strategies and measures for their realization. Such action plan should be integrated into the country's overall development policy management framework (Obadan, 2001).

The study further discovers that microfinance operations in the study area is mainly focused on micro-credits and compulsory savings; no attention was paid to micro-insurance which is another programme of MFIs. Offering insurance services to the poor would therefore give another opportunity to increase the services cum impact and efficiency of microfinance in Nigeria.

6.3 Limitations of the Research

This research has some limitations that can be corrected by the future researchers on the subject matter. Prominent among them are:

Scope of the study. The scope of this study is limited to South-West Nigeria. That is, one out of six geographical zones of the country. Data were collected from three out of the six states in the zone as a result of time constraint and cost of survey. The outcome of the research may therefore be difficult to generalize as a replica of what is occurring in the entire nation; as each zone has some peculiarities.

Being a PhD Thesis, the study is constrained by time and could not conduct the cross sectional survey for the same respondents at two different times in order to assess the impact. In this type of situation, Hulme (2000) suggests "if a baseline study is not available then a recall methodology would be utilized". This is also supported by Hulme (2000)'s view that the type of approach used by a researcher in a study assessing the impact of microfinance loan depends mainly on the time available for the research, human resources available and researcher's budget. To this end, the study is based on Pseudo-panel with recall memory technique (before and after) as exemplified by Allison (1984), Diagne and Zeller (2001), Afrane (2002), Li (2010), Mokhtar (2011), Phan (2012), and Ali *et al*., (2014). In his monograph on Event History Analysis, Allison (1984) describes an event as an issue which comprises some "qualitative change". The change should be able to distinguish the situation before and after its occurrence. Also, the study affirms that separate observational record should be kept for each period the person involved is known to be at risk of undertaking the event. The use of cross-sectional data to build up panel data was further demonstrated by McIntosh *et al*. (2011) through their methodology named Retrospective Analysis of Fundamental Events Contiguous to Treatment (RETRAFECT); as explained in Section 3.8.8.

Studies on the impact of microfinance always involve the children education and women empowerment. These two variables are not included in the research because they would entail another objective and extend the scope for the study.

6.4 Recommendations for Future Research

However, future studies on this subject matter can be extended to the impact of Microfinance on the women empowerment and children education. This would further enrich the scope and make the results more robust.

In addition, more time should be devoted and research grant should be sourced for similar studies in future as this would give opportunity for multiple surveys at different periods and make the result more realistic.

Future studies on similar survey should cover more geographical zones in the country to give ample opportunity for result generalization.

Analysis of the case of dropout should also be considered in the future studies of microfinance impact on poverty alleviation. This would give clearer view on the shortcomings of MFIs.

6.5 Conclusion

This study is unique in view of its contributions to the academics, development agencies and policy implications. It is also timely to the effect that the mantle of leadership in Nigeria changed hands recently (about 100 days ago) from the ruling party to the major

opposition party. To this end, it is highly recommended that the present government should embark on complete overhauling of the moribund development programmes like Microfinance, National Directorate of Employment (NDE) and Back to Land Agricultural projects to mention only three. In addition, the National Poverty Eradication Programme (NAPEP) is due for complete "re-engineering" for better performance. And, more efforts should be geared towards the rural integration projects like construction of good roads, provision of education and health facilities; in order to open up the rural areas for economic development. These efforts will reduce deprivations and poverty, and further minimise the rate of rural-urban migration. It is expected that if the government of Nigeria can heed to the recommendations in this empirical study, the objectives of establishing microfinance and other development programmes on poverty alleviation will be achieved in due course.

For Microfinance Institutions: MFIs should endeavor to create more awareness to the poor and consider more realistic and pragmatic loan procedure that will encourage the poor to access microcredit loan. It is also important for the MFIs to create public enlightenment programmes that would spread their role as development agents for poverty reduction and encourage the poor people who are supposed to be their target audience. Moreover, MFIs should always adjust their loan terms and conditions towards the situation of their potential rural clients. For instance, short term loan and weekly repayment may not augur well for a rural peasant farmer whose harvesting period is seasonal and the crop gestation period is a bit long. In essence, MFIs should endeavor to

make flexible client specific repayment schedules. This idea is corroborated by the findings of Abraham (2015).

Well-articulated and effective Corporate Governance programmes always enhance the image and efficiency of organisations. To this end, MFIs can reduce the cost of operation and improve on their relationship with the immediate environment, by recruiting the local educated people that can earn less than their counterparts in urban centers. Officers from local areas are expected to understand rural poverty better and should be able to convince the poor to join microfinance programmes. Also, MFIs should develop their programmes through Research and Development that would create opportunities for their clients in terms of Training and Entrepreneurship orientation. This is being practiced in Bangladesh by BRAC and the outcome is highly helpful to its clients (Husain, 1998). The trade-off between outreach and sustainability should also be favourable to the poor and not MFIs alone.

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