

**WOMEN ENTREPRENEURS' PARTICIPATION AND POVERTY
REDUCTION IN BAUCHI STATE, NIGERIA**

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DECLARATION

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DEDICATION

This thesis is dedicated to my parents Asen Ityokua (late), Kwaghhembe Asen and my wife Omonike Omosalewa as well as our children Aondongu, Terungwa and Deborah for their love and all the sacrifices they made for my education.

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OPERATIONAL DEFINITION OF TERMS

Absolute poverty	A condition where an individual or a group of had income that was not enough to meet the basic needs. People in this situation had no capacity to save.
Creation of Employment	Women entrepreneurs who made employment opportunities available for themselves and others.
Entrepreneurship	Referred to human creativity and the capability to find profitable ideas that allowed market actors to take advantage of new and socially helpful gains from business activity (ies).
Feminization of poverty	A situation where poverty affected more females than males.
Food Supply	The process of producing food by getting involved in farming activities such as crop production, cattle rearing, poultry farming, fish farming, fishing, and processing farm products for those who were able and willing to take them up in trading, services and agricultural activities.
Gainful employment	The job that the income from it was capable of sustaining the job holder.
Income Generation	It was measured in monetary value.
Market actors	These were countries, institutions, groups and/or individuals that made transactions in the market.
Per Capita Income	Income per person in economic unit such as a country

or city, in this case it will be measured in the Nigerian currency (Naira) per month which is proposed to be 7,500.

Poverty

A condition of lack of the basic needs of life that would not allow a person or group of people to function effectively as member(s) of a society.

Poverty reduction

It means those who had a source of livelihood and health conditions of living of a person or group of people and more access to the basic needs of life like education.

Relative poverty

The condition of poverty that was peculiar to a particular society or economy. For example a person may be said to be poor based on the standard of living Britain however, in Nigeria, such a person is not poor.

Small business

A business that employed less than fifteen people. The ability of entrepreneurs to create those businesses that provides sustainable income for themselves and their employees.

Vision 20:2020

This referred to the plan by the Nigerian Government to transform the Nigerian economy to be one among the top twenty economies of the world by the year 2020

Women Entrepreneurs

Women who identified business opportunities and mobilized resources and took advantage of them for profitmaking.

Women Participation

Women involved in employment creation, income generation, and food supply.

ABBREVIATIONS AND ACRONYMS

BASEEDS	Bauchi State Economic Empowerment and Development Strategy
BLP	Better Life Program
CAWTAR	The Centre of Arab Women for Training and Research
CIA	Central Intelligence Agency
CSOs	Civil Society Organisations
DEC	Development Exchange Centre
DFRRI	Directorate of Food, Roads and Rural Infrastructure
FAO	Food and Agricultural Organization
FEAP	Family Economic Advancement Programme
FSP	Family Support Programme
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
GEMs	Gender Entrepreneurship Markets
GRP	Green Revolution Programme
HDI	Human Development Index
IFC	International Financial Corporation

KNBS	Kenya National Bureau of Statistics
LGA	Local Government Area
MDGs	Millennium Development Goals
MENA	Middle East and North Africa
NACB	Nigerian Agricultural Cooperative Bank
NAFPP	National Accelerated Food Production Programme
NALDA	National Agricultural Land Development Authority
NBS	National Bureau of Statistics
NEEDS	National Economic Empowerment and Development Strategy
NGOs	Non-Governmental Organisations
OECD	Organisation for Economic Co-operation and Development
OFN	Operation Feed the Nation
SSA	Sub-Saharan Africa
UN	United Nations
UNCDF	United Nations Credit Development Finance
UNDP	United Nations Development Programme
USD	United States Dollar
SBS	Small Business Survey

SMEs Small and Medium Enterprises

SMEDAN Small and Medium Enterprises Development Agency of Nigeria

ABSTRACT

Poverty has been identified as a global problem and reducing it both at the global level as well as the national levels of different countries including Nigeria has been made a priority. Poverty is known to affect more women than men due to disparities in education, employment and economic opportunities among others. Women have played important roles in poverty reduction in the United States of America, United Kingdom, India and Kenya among other countries. However, the contribution of women in Northern Nigeria and Bauchi state in particular to the economic development of the State and poverty reduction are not acknowledged by their male counterpart due to religious and cultural beliefs. This study is aimed at identifying the role of women entrepreneurs' participation in poverty reduction in Bauchi State which is one of the poorest States in Nigeria with the poverty rate of sixty-five per cent. The specific objectives of the study were: to establish the effect of employment creation by women entrepreneurs on poverty reduction in Bauchi State, Nigeria; examine the effect of income generation on poverty in Bauchi State, Nigeria; find out the effect of food supply on poverty reduction in Bauchi state, and establish the moderating effect of environmental factors on women entrepreneurs' participation on poverty reduction in Bauchi State, Nigeria. The study adopted positivism research philosophy Descriptive and explanatory research designs were used to carry it out. The target population was 1,500 women entrepreneurs in Bauchi State, Nigeria who are registered with development Exchange Centre. Stratified sampling method was used to select a sample population of 306 respondents. Five strata were identified according to the economic activities of women entrepreneurs in Bauchi State. Data was collected using a structured questionnaire and analysed using descriptive and linear multiple regression models. The study found the effect of women entrepreneurs' participation in employment creation, income generation as well as food supply and poverty reduction to be positive. The environmental factors (socio-cultural and economic factors) were found to be positive moderating effect on women entrepreneurs' efforts to reduce poverty. This study therefore, recommended that the relevance stakeholders take advantage of the potentials of women entrepreneurs to create more employment. Furthermore, funds should be set aside by the Bauchi State government to help women entrepreneurs grow their businesses in order to employ more people; the contribution of women in the area of income generation be factored in the income estimates of the Bauchi State Government; information on better ways of supplying food be provided for women by the Bauchi State Government, Development Exchange Centre and other stake holders also Muslim leaders encourage Muslim women entrepreneur to participate more in business activities in order to reduce poverty in their families. Finally, financial institutions should provide loans to women entrepreneurs at low interest rates to help them participate more in business activities.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Poverty is one of the greatest challenges of countries all over the world. As elaborated by Lucado (2010), 1.75 billion people in the world are desperately poor. That is why eradicating extreme poverty and hunger was coined as one of the Millennium Development Goals (MDGs) of the United Nations (UN) in 2000 (Nweke, 2013). Gabe (2012) asserts that, 46.2 million people were counted as poor in the United States of America in 2011. In 2010, 42% of the people in India were living under the poverty line while 16% of the population of China were said to be poor (Sharma, 2012). According to CIA World Fact-book (2004) 50% of the population of Ethiopia lived in poverty.

According to Ghana Statistical Service (2000), the poverty situation in Ghana reveals that one-third of Ghanaians are categorized as poor. According to Kenya Bureau of Statistics the poverty levels were at 46% in 2005/06 (KNBS, 2007). The National Bureau of Statistics (NBS) revealed that in 2012, 69% of Nigerians out of the total population of 163 million were relatively poor despite the vast human and natural resources the country is endowed with.

This study is of the view that, one of the ways to reduce the high level of poverty in Nigeria is through employment creation and contribution to the Gross Domestic Product (GDP) by women entrepreneurs engaged in micro businesses. This is

because according to NBS and SMEDAN (2012), statistics in developed countries of the world has revealed that micro businesses have contributed significantly to employment creation and contribution to GDP.

1.1.1 Perspectives of Poverty

Poverty means different things to different people. Ogunleye (2010) stated that every region of the world has different yardsticks for measuring poverty based on people's ability to have access to the basic needs of life like food, clothing and shelter. The different yardsticks and indices for measuring poverty around the world notwithstanding, poverty expresses need, below average of the material things needed in life and thereby leads to very low standards of living.

Furthermore, the World Bank (1990) refers to poverty as, "hunger, lack of shelter, being sick and not being able to go to the hospital, not being able to go to school, not knowing how to read, not being able to speak properly, not having a job, having fear for the future, losing a child to illness brought about by unclean water, powerlessness, lack of representation and freedom". Kankwanda (2002) asserts that poverty is lack of access to income earning, productive activities and essential social services, while Adejo (2006) is of the view that poverty could be classified into three categories, namely: history, intellect and ideology.

Moreover, United Nations (1998) quoted by Gordon (2005:4) viewed poverty as, "denial of choices and opportunities, a violation of human dignity, lack of basic capacity to participate effectively in society. Or not having enough to feed and

clothe a family, a school or clinic to go to; a land on which to grow ones food or a job to earn ones living, or access to credit”. Further, it is known as, “insecurity, powerlessness and exclusion of individuals, households and communities. In addition, it has to do with susceptibility to violence and it often implies living in fragile environments without access to clean water or sanitation”.

According to OECD (2012) poverty is measured differently by advanced and developing countries. While advanced countries measure poverty in relative terms, the developing countries measure it in absolute terms. Townsend (1979) was of the view that relative poverty was lack of enough resources to sustain an acceptable way of living in a given society, whereas Rowntree (1941) maintained that absolute poverty was a minimum subsistence. In other words, it was a minimum amount of money on which physical competence could be maintained.

From the forgoing, poverty was manifested in unemployment, no income, starvation, low standard of living, inability to participate in decision making and inability to acquire assets to mention a few. This study, however, limited its scope to employment creation, income generation and food supply because the three indicators are the crux of poverty reduction. With them other indicators could be achieved. For example, the Organization for Economic Co-operation and Development (2009) emphasized that employment was often described as the most significant connection between economic growth and poverty reduction. In addition, Spevaek (2011) argued that entrepreneurship was generally considered as a gateway for women to generate income so that a more sustainable livelihood could be achieved.

Finally, the international development community has recognized that agriculture was an engine of growth and poverty reduction in countries where it was the major occupation of the poor (World Bank, 2007). In terms of food supply, Mehra and Rojas (2008) revealed that women produced 60 to 80 percent of food in most developing countries and half of the world's food supply. One must eat to survive before embarking on any activity in life. This study was generalized to other Northern States of Nigeria where women's contributions to poverty reduction were not acknowledged due to socio-cultural beliefs.

Kakwani and Son (2006) reported that in 1990, the World Bank set the global poverty line of one dollar per day which has been reviewed to below 1.25 dollar per day, while moderate income poverty line referred to life below 2.00 dollars per day. In this study, poverty was defined as a condition of having no source of livelihood or insufficient income to meet basic needs (inability to earn \$1 a day, that is, N150), insufficient food and little access to social amenities like healthcare services and education to mention a few.

A number of studies like Misango and Ongiti (2013), Anyanwu (2010) revealed that poverty affects women more than men. For example, Fonjong, Fombe and Sams-Lang (2010) and Kabeer (2003) reported that women constitute 70% of the world's poor. Moreover, Ageh (2012) asserted that African women were poorer compared to women in other parts of the world. According to Ogunleye (2005) poverty affects women more than men because women had access to fewer economic

resources, less social and political power than men who also made it more difficult for them to come out of poverty.

1.1.2 Poverty Reduction Efforts in Nigeria

Several studies in Nigeria, such as Ogege (2011); Ogundele, Akingbade and Akinlabi (2012); Adofu and Ocheja (2013); and Omoyibo (2013) and among others revealed that poverty was one of the greatest problems facing Nigeria as a nation. According to Raimi, Towobola, Kolade, and Fadipe (2011) in Akhuemokhan, Raimi and Sofoluwe, (2013), a number of programs and policies were introduced to reduce poverty in the country by successive administrations like National Accelerated Food Production Programme (NAFPP), Nigerian Agricultural Cooperative Bank (NACB), Operation Feed the Nation (OFN), Green Revolution Programme (GRP), Directorate of Food, Roads and Rural Infrastructure (DFRRI).

Others included: Family Support Programme (FSP), National Agricultural Land Development Authority (NALDA), National Economic Empowerment and Development Strategy (NEEDS), Family Economic Advancement Programme (FEAP), Seven-Point Agenda and Economic Transformation Agenda. Despite the introduction of these policies and programmes, Anger (2010); Agbiboa (2011); Oseni, Oyetunji, Ogunlade and Sanni (2012); and Abdullahi (2012) were of the view that poverty in Nigeria was on the increase.

Adejowun and Tijani (2012) asserted that after China and India, Nigeria had the third largest number of the poor people in the world. The country's per capita in-

come of \$300 was below the sub-Saharan average of \$450, and the Real GDP growth had remained sluggish averaging 3.5 per cent per annum since 2000. Furthermore, Brimah, Bolaji and Brimah (2013) maintained that the indices of development for Nigeria proved that the country was very poor. For example, Nigeria's maternal mortality rate remained one of the highest in the African Continent which stood at 100 for every 100,000 births. Life expectancy remained 52 years as at 2012 (UNDP, 2013). Less than 67 percent of Nigerians had access to good health services. Only 19 medical doctors were available per 100,000 persons against 16 nurses; and only 42 % had access to safe drinking water (Bakare, 2011).

As government efforts to reduce poverty did not yield the desired result, Afolabi (2009) suggested the involvement of women entrepreneurs to help fight poverty in the country. The study was of the view that empowerment and involvement of women in both planning and implementation stage of policies could yield the expected result. Furthermore, successive administrations in Nigeria had recognized the significance of women in poverty reduction. This led to the introduction and implementation of policies that would help women to reduce poverty. These included Better Life Program (BLP) for rural women and the Family Support Program (FSP).

The main objective of the BLP was to sensitize both the government and the private sector on the useful role that women could play in the development of the country, while the goal of FSB was to improve and sustain family cohesion through the promotion of social and economic well-being of the Nigerian family. However, the

policies were discontinued due to change in government and so they did not achieve the set objectives (Dionco-Adetayo, Makinde, & Adetayo, 2005 and Oluremi & Gbenga, 2011).

1.1.3 Women Entrepreneurs and Poverty Reduction

Successful functioning of micro enterprises had the propensity to provide economic independence to women leading to their empowerment in India (Mohanty, Das & Moahanty, 2013). Furthermore, Deng, Xu and Ilan (2011) opined that women entrepreneurs in China chose sectors such as restaurant, retail and information services to achieve economic independence. In addition, Aguirre, Hoteit, Rupp and Sabbagh (2012) reported that half of the world's self-made female billionaires were in China, and a quarter of the country's entrepreneurs were females. Women's participation in entrepreneurship in Germany was concentrated at the micro level, these businesses accounted for 10 percent of all businesses with annual revenue of €1 million (US\$1.2 million). Furthermore, 59 per cent of women in Peru generated income through small shops and productive small enterprises. Eighty percent of the rural poor women were very active earning their living in agriculture and fishing (Coughlin & Thomas, 2002).

Oghojafor, Olayemi, Okonji, and Olayiwola (2011) maintain that it is generally acknowledged that entrepreneurs have immense potentials as a stimulant of economic growth and sustainable development. The National Bureau of Statistics (NBS) and the Small and Medium Enterprises Development Agency of Nigeria

(2012) reported that Micro, Small and Medium Enterprises (MSMEs) constituted one of the critical elements to the achievement of the Nigeria's vision 20:2020. The sub-sector had been acknowledged worldwide as the engine that drives the socio-economic transformation of the developing as well as developed countries. A nurtured and well structured MSME sector contributed significantly to employment generation, wealth creation, poverty reduction and sustainable economic growth and development.

Coughlin and Thomas (2002) maintained that women were involved in businesses in large numbers globally. In the United States, for instance, women owned 9.1 million firms, or 38 percent of all U.S. companies. From 1987 to 1999, the number of woman-owned firms in the United States increased by 103%; employment by female companies' rose to 320%; and, even more astonishing, sales grew by 436 %. Female-owned businesses in the United States generated more than \$3.6 trillion in annual sales, and female entrepreneurs employed more people than the whole Fortune 500. Coughlin and Thomas (2002) further reported that among the industrialised countries of the world the United States of America had the highest number of female entrepreneurs, woman-owned businesses were on the increase everywhere.

Coughlin and Thomas (2002) reported that in Germany, women had created a third of the new enterprises since re-unification in 1990, providing one million new jobs and contributing U.S. \$15 billion to the German gross national product. Female entrepreneurs in other transition economies, like Russia, Hungary, Romania, and Poland, also made a comparable impact. In Latin America, according to the World

Bank, up to half of all economic growth in the last decade throughout the region was attributed to the creativity and hard work of female entrepreneurs. In South Asia, women currently outnumbered men as business owners; and in South-east Asia female-owned businesses had been at the vanguard of that region's economic turnaround.

Mead (1999) in Spring (2009) studied 50, 000 microenterprises in Africa and discovered that women owned 48% enterprises. Amin, Ray and Topa (2003) were of the view that women entrepreneurship had the ability to bring the poor and the vulnerable out of their unfavorable conditions. An examination of household expenditure by working women revealed that women were more inclined to be benevolent and spent most of their money on their families. In this way, the well being of the whole family could be improved.

In Nigeria NBS and SMEDAN (2012) revealed that women owned 13.59% of Micro, Small and Medium Enterprises (MSMEs). This was very small however, this study was of the opinion that by creating awareness and educating women by the stake holders, women in Nigeria in general and Bauchi State in particular would take up the challenge and get involved in businesses and thereby create employment, generate income and supply food like women in the United States of America, India, Ghana and Nigal to mention but a few (OPEN, 2013; Sathiabama, 2010 & Otoo *et. al.*, 2010).

Nweke (2013) indicated that the role of the Nigerian woman in poverty reduction was very important. It further stated that women were better than men in lifting

themselves and their families out of poverty and as such had positive effect on their villages, cities and nations and overall poverty reduction. This meant that the success of women entrepreneurs benefited not just one person but several people.

1.1.4 Poverty Situation in Bauchi State

According to the Report of Bauchi State Economic Empowerment and Development (BASEEDS) Strategy Committee (2004), Bauchi State was created in 1976, and had 20 Local Government Areas (LGAs). The National Population Commission (2010) maintained that Bauchi State had a total population of 4,653,066 people of whom 50.9 % were males and 49.1% females. BASEEDS (2004) further indicated that 43% of the State's population, still live under 50 naira per day, 21.5 % live under 100 Naira per day and only 21.5 % live above 150 Naira per day which was equivalent to one United States (US) dollar.

Further, 43 % of the population of Bauchi State went hungry everyday; 32.2 % had no opportunity to go to school; 60% of the employees did not earn enough to keep their families above poverty line. Approximately four out of five children lived in poverty (BASEEDS Strategy Committee, 2004). Nweke (2013) reported that Bauchi State had the poverty rate of 65 percent, thus making it one of the poorest States in the country. This made it very important for women to rise up and participate in employment creation, income generation and food supply in order to fight the scourge of poverty in the State in particular and the country in general.

1.2 Statement of the Problem

Poverty had become endemic in Nigeria that people had adapted it as part of their fate in life. For instance, Nigeria ranked 153th out of 187 based on Human Development Index (HDI) among the countries surveyed in 2012 (UNDP, 2013). Oshewolo (2010) revealed that only 40% of the population had access to safe drinking water; 85% of the urban population lived in single houses with more than 7 occupants on the average, 62% of Nigerians had access to primary health care while 38% could not access health care. The average life expectancy by 2012 was 52 years (UNDP, 2013).

Adamolekun (2013) in Nwagwu (2014) reported that out of the 144 countries covered by the report, Nigeria ranked 140th in primary education enrolment. Ajodo-Adebanjoko and Ugwuoke (2014) further reported that Northern States had the highest poverty rates in Nigeria, with North West and North east regions having the poverty rates of 77.7% and 76.6% respectively. Bauchi State for instance was one the poorest States with poverty rate of 65 % (Nweke, 2013).

Ogunjimi, Ibe and Ikorok (2012) revealed that in respect to maternal mortality rate, Nigeria ranked among the top most 13 countries. This implied that compared to one in every thirty –five in Ghana, and one in every two thousand eight hundred in developed countries, Nigeria was reported to have one out of thirteen which was the highest in the world. Successive administrations in Nigeria had put in place various policies and programs however, poverty was still on the increase (Abdullahi, 2012; Agbibo, 2011; and Anger, 2010). For example, the poverty level rose from 15% in

1960 to 69% in 2012 (NBS, 2012 and Garba, 2006). The failure of the policies and programs was attributed to unrealistic goal setting; corruption; poor implementation; lack of proper monitoring; bad governance and inability to identify and target the poor especially women (Alese, 2013 and Omoniyi, 2013).

However, as stated by Oluremi and Gbenga (2011), successive administrations in Nigeria had recognized the significance of women in poverty reduction and had introduced and implemented policies that helped women to reduce poverty. The role of women was critical in all aspects of development and poverty reduction could not be an exception (Kabir & Huo, 2011).

Findings from other studies revealed that women entrepreneurs in other States in Nigeria especially the southern States had reduced poverty by creating employment and generating income and supplying food for themselves, other people and the nation (Shitu, 2012; FAO, 2008; Akpanobong & Usoro, 2010; Onwurafor & Enwelu, 2013; Agbalajobi, 2010). However, the same cannot be said of women in the Northern region which Bauchi State belong. This could be one of the reasons why there was more poverty in the northern region of the country than the southern region (Nweke, 2013). This study was set out to fill this gap.

Furthermore, despite the contributions of women in Northern Nigeria and Bauchi State in particular, to economic development and poverty reduction, their efforts were not recognized due to cultural beliefs. Research that discussed the contribution of women entrepreneurs and poverty reduction in Bauchi State was limited. For instance, Ben-Caleb, Faboyede and Fakile (2013) focused their study on empowering

small and medium scale enterprises to alleviate poverty while a study by Abdullahi (2012) concentrated on role of government on poverty eradication. However, these studies did not consider the cultural and religious factors that prevailed mostly in the northern region of the country against women. This study was set out to fill these gaps. The objective of this Study therefore was to investigate women entrepreneurs' participation and poverty reduction in Bauchi State, Nigeria.

1.3 Objectives of the Study

The main objective of this study was to investigate women entrepreneurs' participation and poverty reduction in Bauchi State, Nigeria.

1.3.1 Specific Objectives.

The specific objectives of this study include:

- i. To establish the effect of employment creation by women entrepreneurs on poverty reduction in Bauchi State, Nigeria.
- ii. To examine the effect of income generation on poverty reduction in Bauchi State, Nigeria.
- iii. To find out the effect of food supply on poverty reduction in Bauchi State, Nigeria.
- iv. To establish the moderating effect of environmental factors on poverty reduction by women entrepreneurs in Bauchi state, Nigeria.

1.4 Research Hypotheses

The hypotheses for this study were stated in the null form as follows:

H₀₁: There is no relationship between women entrepreneurs' employment creation and poverty reduction in Bauchi State, Nigeria.

H₀₂: There is no relationship between women entrepreneurs' income generation and poverty reduction in Bauchi State, Nigeria.

H₀₃: There is no relationship between women entrepreneurs' food supply and poverty reduction in Bauchi State, Nigeria.

H₀₄: Environmental factors have no moderating effects on the relationship between women entrepreneurs' participation and poverty reduction in Bauchi State, Nigeria.

1.5 Significance of the Study

The significance of the study was discussed under two sub-headings. They were policy implications and practical implications.

1.5.1 Policy implications

The policy makers would gain more insight in another way of reducing poverty through women entrepreneurship. This was because since independence, poverty reduction had been one of the greatest challenges facing the nation and a lot of efforts as well as resources had been spent by successive administrations without commensurate success. However the past efforts did not focus much on women entrepre-

neurs with the view to addressing the socio-cultural issues perpetuated through religious beliefs. The findings of the study though not generalized across the whole of Nigeria, would give insight on the role of the cultural component in the northern region with higher prevalence of poverty.

1.5.2 Practical Implications

This study also served as an encouragement to women entrepreneurs in the country especially those in the northern region that they were a very important tool for poverty reduction that could not be ignored. It was hoped that this encouragement would help them to get involved in entrepreneurship and thereby reduce poverty in the region especially Bauchi State of Nigeria where the poverty rate was high. Development Exchange Centre (DEC) would also benefit from the findings of this study. This was because it would help DEC to evaluate its activities in order to see areas they need to improve, reinforce or retain.

Finally, this study would benefit the academia because it would add to the body of existing literature on the contribution of women entrepreneurs to poverty reduction in Bauchi State where many women were secluded (stay in their houses) thereby depending on their husbands and/or other men to provide everything for the upkeep of the family.

1.6 Scope of the Study

This study covered 1500 women who owned micro enterprises in Bauchi Local Government Area of Bauchi State of Nigeria. These women were recognized and financed by Development Exchange Centre (DEC), a Non-Governmental Organization (NGO) based in Bauchi State of Nigeria. The study also focused on only three main elements of women entrepreneurship participation namely: employment creation, food supply and income generation. Poverty reduction was measured in terms of increased earnings, access to health facilities and increased access to education. Lastly, socio-cultural and economic factors constituted the moderating variables of the study.

1.7 Limitations of the Study

All the women entrepreneurs sampled in the study were financed by the Development Exchange Centre (DEC) Bauchi, Bauchi State fell under the micro business category and these were the enterprises under the consideration of this study. The implication was that the result of this study was biased in favor of micro businesses. However, the study would give some insight into the role women enterprises play in poverty reduction in Bauchi State.

Another limitation was centered on the use of regression technique to analyse data for this study. The triangulation method of data analysis could have produced a better result. However the stepwise method of regression analysis employed by the study gave some insight in the contribution of every independent variable to the

dependent variable which was poverty reduction. This was achieved by knowing the percentage each variable contributed to poverty reduction, and the coefficient of each variable gave the direction, the magnitude as well as the level of significance of the contribution of each variable to poverty reduction.

1.8 Organization of the Study

The thesis was organized into five chapters. Chapter one was made up of the introduction which contained the background to the study, perspectives of poverty, feminization of poverty, the statement of the problem, objectives of the study, research hypotheses, significance of the study, scope of the study, limitations of the study and the organization of the study. Chapter two contained literature review including theoretical review, and empirical review, summary of literature review and research gaps and the conceptual framework.

Chapter three was made up of the methodology of the study with the following sub headings introduction, research design, the research philosophy, the study area, target population, sampling design, and data collection instruments, data collection procedure, pilot study, validity and reliability of data collection instruments, operationalization of the variables data analysis the empirical model and ethical issues. Chapter four was made up of research findings and discussions while chapter five contained summary, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter was divided in three main sections. In the first section the theoretical review of the study was presented. The theories reviewed were: Alfred Marshall's theory, Joseph Schumpeter's theory, Social-cultural theories and Israel Kirzner's theory. While in the second section, the empirical literature was reviewed. The review covered the following areas: Women entrepreneurs' employment creation and poverty reduction; women entrepreneurs' income generation and poverty reduction, women entrepreneurs' food supply and poverty reduction and the effect of environmental factors on poverty reduction efforts of women entrepreneurs. In the last section of the chapter, the conceptual framework of the study was presented.

2.2 Theoretical Review

In this section, Alfred Marshall's theory, Joseph Schumpeter's theory, Social-cultural theories and Israel Kirzner's theory were reviewed.

2.2.1 Alfred Marshall's Theory

One of the major concerns of Marshall's work was economic development which he referred to as economic progress. According to Marshall, the increase of human

beings in numbers, health and strength, in knowledge, ability and in riches of character was the conclusion of his studies. Therefore, economic progress was the main theme of most of his studies (Marshall, 1873b).

According to Marshall, progress had several dimensions. They were: development of mental and moral faculties and even when their exercise did not produce material gain. The true progress of man was manifested in advancement in capacity for feeling, and for thought and it was sustained by entrepreneurship.

Progress was not just an increase of wealth since the production of wealth was a means to sustain man, satisfy his wants and to develop his activities physically, mentally and morally. This was why Marshall preferred to talk about development or progress instead of growth (Sen, 1988). On the one hand, industrial development involved an increase in wealth, production and income; on the other hand, it carried with it the risk of enslaving man and his environment to the conditions of production and thereby worsening the quality of life whose improvement should be the main purpose of human existence. As such, the quality of life was the main test of progress. A good quality of life was not only made up of a particular level of income but other elements like security, fresh air and a green environment among others (Marshall, 2000a).

Marshall investigated the larger concept called society which included political, social, cultural and institutional context where man live, move and think in the ordinary business of life and whose economic dimension was only one element of the large whole. Marshall further investigated in industry and trade and noted that

the difficulty of obtaining sufficient supplies of food and raw produce would in the near future weigh heavily on densely populated countries like China, India and Nigeria among others (Marshall, 1919). This study took the views of Marshall into consideration on the role of the entrepreneur in economic progress, and that industrial development was associated with risk.

2.2.2 Joseph Schumpeter's Theory

Schumpeter (1961) was of the view that the entrepreneur was the principal actor in economic development. Through innovation and innovative activities, the entrepreneur could bring about progress in an economy that brings about development. Schumpeter was of the view that the institution that could help the entrepreneur to purchase the resources needed to accomplish his or her vision was a well-developed capitalist financial system that included a complete range of institutions for providing credit.

Croitoru (2012) reported that Schumpeter also came up with a concept called new combinations which covered areas such as the introduction of new products or a new quality of a product, new production method, opening up of new markets, acquisition of a new source of supply or raw materials or semi-manufactured products, as well as carrying out of the new organization of any industry such as the creation of a monopoly condition or the breaking up of the monopoly situation. Schumpeter (1961) was of the opinion that entrepreneurs were responsible for carrying out these economic functions.

Schumpeter (1961) maintained that new ways of producing goods and services would replace old ones by what he coined creative destruction. Furthermore, Schumpeter asserted that entrepreneurs in a particular economy were responsible for bringing about change in innovation and technological change. And that the actors that impel innovation and economy are large companies which have the resources as well as capital to invest in research and development.

According to Pol and Carroll (2006), economic change revolves around innovation, entrepreneurial activities and market power. And that innovation oriented market power could yield better results than the invisible hand and price competition. This study agreed with Schumpeter's views on the important roles of entrepreneurs in economic development, new combinations and creative destruction.

2.2.3 Social- Cultural Theories

One of the first and most recognized attempts to connect entrepreneurship to the larger social context was Weber's classic work known as, "The Protestant Ethic and the Spirit of Capitalism" (1930). Weber pointed out that the rise of Protestantism encouraged hard work, thrift, and striving for material advancement, which in turn gave birth to capitalism.

Even though the causal effects of the Protestant ethic on the development of capitalism had since been vehemently contested, it seemed clear that the augment of Protestantism removed a number of institutional obstacles that were preventing the development of capitalism. It was concluded that there must be similarity between

ideological constructs and economic behavior if entrepreneurship was to thrive. The inclination of certain cultures to produce entrepreneurs has made it spontaneously appealing to examine culture as a determinant of entrepreneurship.

Hagen (1960) explained entrepreneurial behavior as a means by which disadvantaged minorities sought to alter the status quo. Some examples were the Dissenters in England, the Protestants in France, the Samurai in Japan, the Jews in many countries, the Parsees in India and the poor women in Bauchi State (Greenfield & Strickon, 1981). This perspective was continued till date according to Brenner (1987), who maintained that the categories of people who were pushed in entrepreneurship were those who had either lost or face the likelihood of losing social status. This study upheld the opinions of Weber on hard work, striving for material advancement, the influence of culture on entrepreneurship and the entrepreneurship as a means through which the poor women in Bauchi State would change their status quo.

2.2.4 Israel Kirzner's Theory

Kirzner (1973) was of the view that successful entrepreneurship played a very significant role in bringing about economic development, growth as well as the attainment of a prosperous economy. He further explained the fact that entrepreneurs required certain social and economic conditions that would assist them to be successful. The creation of a conducive social and economic environments involved bringing in the government and the academia to develop public policies and educational

programs respectively that would stimulate and encourage the entrepreneurial potential that would lead to the desired economic outcomes that only entrepreneurs could bring about.

Kirzner (1982,1999) also stressed the on the nature of the market process which was put in motion by the entrepreneurs' decisions which he believed could create a platform for public policy actors to come up with suggestions that affect entrepreneurship. Kirzner further emphasized that the market process could be traced to individual market decisions in areas such as changes in relative prices, the changing patterns of output and changing methods of production. These decisions could be traced back to consumers, resource-owners and producer markets.

In addition, Kirzner (1973) discussed the issue of entrepreneurial alertness. By this he meant that the entrepreneur should be on the look out to already existing but generally unnoticed changes in prices. This in his opinion would give birth to a competitive entrepreneurial process. Kirzner further maintained that when the entrepreneur competitively takes hold of perceived opportunities, it could move the market towards the equilibrium configurations. This study had taken the views of Kirzner on the importance of entrepreneurs in the economic development, growth, and the attainment of a prosperous economy, the market process and the entrepreneurial alertness.

2.3 Empirical Literature Review

The empirical literature review covered the following areas: women entrepreneurs' participation in employment creation and poverty reduction (the variables included trading, agricultural activities and services), women entrepreneurs' participation in income generation and poverty reduction (the variables were reduction of dependency, amount spent on bills and amount of savings), women entrepreneurs' participation in food supply and poverty reduction (the variables included value of food for consumption, value of food for sale and the cost of food) and the effect of environmental factors (socio-cultural and economic) on women's participation in entrepreneurship and poverty reduction in Bauchi State of Nigeria. The elements of the dependent variable were increased earnings, access to health facilities and more access to education.

2.3.1 Women Entrepreneurs' Employment Creation and Poverty Reduction

Globally, unemployment was found to be one of the critical challenges of many countries of the world especially among the developing countries of which Nigeria are one (Salami, 2011). It was also one of the causes of poverty (Setyaningsih, Rucita, Hani, & Rachmania, 2012). However, women entrepreneurs have been found to be very useful instruments for employment creation thereby reducing unemployment and poverty. Kelly, Brush, Greene, Litovsky and Global Entrepreneurship Monitor (2013) reported that in 2012, one hundred and twenty-six million women started or run new businesses in sixty-seven economies around the world. In addition, ninety-eight million run established businesses.

Women have been found not only to create employment for themselves and their co-founders, but they also employed others. A projected forty-eight million female entrepreneurs and sixty-four million female business owners currently employed one or more people in their businesses (Kelly, Brush, Greene, Litovsky & GEM, 2013). The Organization for Economic Co-operation and Development (2009) asserted that employment creation was often described as the most significant link between economic growth and poverty reduction. The report by the United States of America's Department of Commerce Economics and Statistics Administration (2010) for the White House Council on Women and Girls, in 2007, revealed that 7.8 million firms owned by women paid 215 billion dollars to 7.5 million employees. It further showed that between 1997 and 2007, women entrepreneurs created five hundred thousand jobs for the people of the United States of America.

Kumar, Mohan, Vijaya and Lokeshwari (2013) and Pedhiwal (2011) reported that in the United States of America, 9.2 million people were employed by 6.4 million businesses. The Department of Business Innovation and Skills (2011) concerned with women owned businesses in the United Kingdom used a sample size of 1,102 for women-led SMEs and found that fourteen per cent(14%) of all SME employers in the Small Business Survey (SBS) were women-led furthermore, 18% of women-led employers in the employed more people when surveyed one year previously and 59% per cent of women-led SME employers predicted that their staffing levels would remain the same over the next one year (SBS, 2010).

In Canada, one-third of small businesses were owned by women and in France it was one – fifth. There were over five million women entrepreneurs that constituted one-fourth of all the entrepreneurs in China (Rao, Rao & Ganesh, 2010). The women entrepreneurs in these countries had employed people and therefore helped to reduce poverty in their various countries. According to Choudhary (2013) there were several states in India that had more than fifty thousand women enterprises. They included the southern states of Kerala, Tamil Nadu, and Karnataka among others. The enterprises owned by women in the above named States of India had provided employment opportunities to a number of people thereby reduced poverty in their country.

Sathiabama (2010) maintained that women entrepreneurship was the only solution to the growing unemployment in India. It helped to generate employment for a number of people within their own social system. In a survey conducted in Indonesia of 169 women entrepreneurs, it was discovered that a number of them had the highest 10 paid workers in different sectors like services, trade, restaurants, and industrial sector (Tambunan, 2010). Singh and Raina (2013) asserted that in India, more and more women took up entrepreneurial activity especially in micro, small and medium scale enterprises that helped them to create employment for themselves and others.

The Centre of Arab Women for Training and Research (CAWTAR) and the International Finance Corporation (IFC) Gender Entrepreneurship Markets (GEM), in the Middle East and North Africa (MENA), discovered that Women entrepreneurs in

this region created employment and thereby helped to reduce poverty (CAWTAR & IFC, 2007). Tunisian women enterprises accounted for the highest number of employees, they employed nineteen people on average per firm; followed by The United Arabs Emirates (UAE) with fourteen employees, Bahrain thirteen workers, and Jordan six employees. The women entrepreneurs in these countries helped in poverty reduction by providing employment opportunities to people.

In Niger and Ghana, Otoo, Fulton, Ibro, and Lowenberg-Deboer (2010) revealed that the street food sector provided employment for women entrepreneurs. As a result, poverty was reduced among women in Niger and Ghana. Misango and Ongiti (2013) examined the impact of entrepreneurship by women towards reducing poverty in Kenya, with women entrepreneurs at the Maasai market as case study. Analyzing the data obtained through primary source with descriptive statistics, the study showed that women entrepreneurs engaged in economic activities made a positive contribution towards poverty reduction in Kenya. The women in Maasai market were involved in actions like employment creation and participation in export trade directly and indirectly which impacted positively on poverty reduction in Kenya.

Furthermore, in a study of 190 female entrepreneurs in Ogun State, South-West Nigeria it was discovered that apart from the contribution of women entrepreneurs to reducing poverty, women also recognized that their involvement in entrepreneurship contributed to employment creation (Agbalajobi, 2010). Kabir and Huo (2011) noted that small enterprises generated self-employment activities that helped to improve the standards of living of women and their households. However, the sam-

ple size of 90 respondents was too small for generalization in Bangladesh. The current study used a larger sample size of 306 respondents to discover the role of women entrepreneurs in employment creation in Bauchi State of Nigeria. Besides, the study by Kabir and Huo (2011) was done in Bangladesh while the current study was conducted in Nigeria.

Onwurafor and Enwelu (2013) discovered that rural women were involved and participated in agro-food processing activities. However, the study focused more on the training of women entrepreneurs. This study focused fully on participation of women entrepreneurs in entrepreneurial activities including job creation and its effect on poverty reduction.

Akpanobong and Usoro (2010) found that women entrepreneurs contributed significantly to poverty alleviation and sustainable development. The indicators of poverty alleviation and sustainable development were not given in the study for verification by the reader. The current study has provided the indicators of poverty reduction for the reader. For example, under the employment creation variable, the indicators included the number of people employed in trading, provision of services and agricultural activities.

2.3.2 Women Entrepreneurs' Income Generation and Poverty Reduction

Inadequate income was one of the causes of poverty (Bastos, Casaca, Nunes, & Pereirinha, 2009). Spevaek (2011) argued that entrepreneurship was generally regarded as a gateway for women to generate income so that a more sustainable livelihood can be achieved. The Food and Agricultural Organization (2003) quoted in Onwurafor and Enwelu (2013) reported that women participation in agriculture helped to generate 44 percent of the family income. According to Pedhiwal (2011) businesses owned by female entrepreneurs contributed 1.5 trillion United States dollars (USD) to the economy of the United States of America.

American Express OPEN (2013) revealed that the number and economic contributions of women-owned firms were on the increase, the generation of income by women owned enterprises was ever more on the increase. The study went further to give examples of States in which more revenues were generated as the District of Columbia, North Dakota, Nevada, Wyoming and Georgia. Sathiabama (2010) was of the view that entrepreneurship was very beneficial to women in India because it enabled them to add to the income of their families.

A research conducted in MENA region by CAWTAR and IFC Gender Entrepreneurship Markets (GEM), revealed that women-owned businesses generated income that helped to reduce poverty (CAWTAR & IFC, 2007). For instance 6% and 33% of women-owned businesses surveyed in Jordan and United Arab Emirates generated more than \$100,000, respectively, per annum. Kabir and Huo

(2011) reported that women entrepreneurs in Bangladesh experienced increase in income due to participation in entrepreneurship. The study further revealed that women were able to save part of their income and they experienced significant development in areas like improved sanitary latrines, health status and household units among others.

Misango and Ongiti (2013) observed that women entrepreneurs were involved in economic activities that helped them to impact positively towards poverty reduction in Kenya. Their actions included: ability to produce products from locally sourced raw materials for sale. They were also able to meet their basic needs like taking their children to school and enhanced their living conditions.

Otoo, Fulton, Ibro, and Lowenberg-Deboer (2010) further revealed that women entrepreneurs who were engaged in the cowpea street food sector in Niger and Ghana earned income much higher than the minimum legal wage in Niamey and Kumasi, respectively. Okafor and Mordi (2010) maintained that in Nigeria, women were involved in entrepreneurship in order to provide income for their families thereby helped to maintain their homes. Akpanobong and Usoro (2010) also investigated the contribution of women entrepreneurs in poverty reduction and sustainable national development in Nigeria; it was revealed that women contributed not just to the income of their families but to the national income as well.

Selamat, Razak, Gapor and Sanusi (2011) discovered that entrepreneurship was a means for income generation and a tool for survival for women in Penang Island of

Malaysia. However, the study's population and sample size were not clearly explained. The current study was set to find out if women entrepreneurs in Bauchi State also could generate income through entrepreneurial activities.

In order to achieve the purpose this study, attempt was made to explain the population of the study as well as the sample size for better appreciation of the result of the study by the reader. In addition, the study also sought to find out if women entrepreneurs could reduce poverty in the area of food supply as is the case in other parts of the world like China, India and Bangladesh (FAO,2010) to mention but a few.

2.3.3 Women Entrepreneurs' Food Supply and Poverty Reduction

Lack of food or its availability in insufficient quantity as and when required (food insecurity) was one of the indicators of poverty. The international development community has recognized that agriculture was an engine of growth and poverty reduction in countries where it was the main occupation of the poor (World Bank, 2007). According to Raney, Anrique, Croppenstedt, Gerosa, Lowder, Matuscke, Skoet and Doss (2011), aggregate data showed that women comprised 43 percent of the agricultural labor force globally, within Asia, the sub-regional averages ranged from 35 % in South Asia to almost 50 % in East and South-east Asia respectively.

The Food and Agricultural Organization (2010) statistics in five regions of the world revealed that the share of women in the agricultural labor force was as followed: Latin America and the Caribbean 20 percent, South Asia 35 percent, East

and South- East Asia 46 per cent, Near East and North Africa 45 percent and the Sub- Saharan Africa 50 per cent. This showed that in several regions of the world a reasonable number of women were employed in food supply and were therefore contributing to poverty reduction.

In Bangladesh, the female share of agriculture was more than 50 %. The averages in Africa ranged from over 40 percent to over 50 % and women produced 60-80 % food (FAO, 2010). Momsen 1991; Mehra and Rojas (2008) also acknowledged the fact that women produced 60 to 80 percent of food in most developing countries and added that half of the world's food supply was provided by women.

In addition, information provided by the Food and Agricultural Organisation (FAO) from 86 countries around the world indicated that 5.4 million women worked as fishers and fish farmers in the primary sector. This represented 12 percent of the total work force in the above named sub-sector. In two major producing countries, China and India, women represented a share of 21 percent and 24 percent, respectively, of all fishers and fish farmers (FAO, 2008).

In terms of the amount of time spent in food supply activities, it has been established that in Latin America women spent more than 30 percent of their time in food production, in Asia, estimates ranged from 32 percent in India to over 50 percent in China. Furthermore, in Africa, estimates of the time contribution of women to agricultural activities ranged from 30 percent in the Gambia to 60-80 percent in different parts of Cameroon (Roney, Anrique, Croppenstedt, Gerosa, Lowder, Matuscke, Skoet & Doss, 2011).

In addition, it has been established that women entrepreneurs had the capacity to produce enough food and thus reduce poverty. For instance, Kabir and Huo (2011) maintained that due to participation of women in entrepreneurial activities in Bangladesh, they were able to supply nutritious food to their families. Otoo, Fulton, Ibro and Lowenberg-Deboer (2010), further revealed that street food vending by women provided inexpensive and nutritious food for the urban poor.

Akpanobong and Usoro (2010) also revealed that women entrepreneurs made significant contribution in the improvement of the nutrition of their families. According to the Food and Agricultural Organization (2003), women contributed 44 percent to the family feeding in Nigeria. Abdullahi (2012) also was of the view that the Nigerian economy was dominated by subsistence farmers, 60% of the Nigerian population engaged in agriculture, with 41% contribution to the Gross National Product.

Abdullahi's (2012) focus was however on the role of government in poverty eradication in Nigeria. Due to the failure of government policies and programs to reduce poverty in Nigeria (Anger, 2010), Afolabi (2009) suggested the involvement of women entrepreneurs. Therefore, the current study focused on women entrepreneurs' participation and poverty reduction in Bauchi State, Nigeria. In this section emphasis was on food supply by women entrepreneurs and poverty reduction.

Shitu (2012) revealed that women produced 75% of food for local consumption and export. However, the study failed to establish the link between women entrepreneurship in the area of food supply and poverty reduction as suggested by the title of the

study. The current study established a link between women entrepreneurial activities in the area of food supply and poverty reduction in Bauchi State of Nigeria.

Kabir and Huo (2011) reported that in Bangladesh, women contributed to the local, national and regional economies through food supply among others and thereby reduced poverty. The study used only descriptive analysis and came out with the result. The current study used descriptive and inferential statistics in order to obtain the result. This study was set to find out if women entrepreneurs in Bauchi State could be able to also reduce poverty through food supply.

2.3.4 Moderating Factors

In this sub-section, the moderating variables of the study were discussed. They were socio-cultural and economic factors.

2.3.4.1 Socio- cultural Factors and Women's Role in Poverty Reduction

Meek, Pacheco and York (2009) found that social norms influenced the level of entrepreneurial founding in a particular economy. The study also discovered that culture influenced both the level of entrepreneurship, why individuals chose to become entrepreneurs as well as why people of a particular society chose specific businesses to be involved in. Akpor-Robaro (2012) further discovered that the Nigerian socio-cultural environment contained more negative factors that pushed women into entrepreneurship than positive factors that pulled them in entrepreneurship.

However, the methodology of the study lacked the necessary rigor because neither the population of the study nor the study sample nor the statistical tool for data analysis was given in the study. Thus the result of the study cannot be considered as authentic as it ought to be; therefore, the methodology of the current study was more rigorous to provide a more authentic result.

Awa, Kalu and Awara (2010) asserted that there was a strong correlation between culture and a firm's performance. Therefore, an entrepreneur was to identify, study, monitor, manipulate and adapt to culture in order to take advantage of the opportunities it offered. Hanami (1979) also reported that the focus on Japanese culture and tradition explained Japan's success story in business. This meant that the culture of the people affect both the performance as well as the success of a business. Bhattacharyya (2012) further discovered in a study conducted in India that adaptation of companies to cultural norms was fundamental to their success.

According to Thornton, Ribiero-Soriano and Urbano (2011) when an individual creates a business in a particular cultural environment, such a business reflects that cultural environment. Ramgulam, Raghunandan-Mohammed and Raghunadan (2012) also found that countries benefit when they pursue businesses in line with established socio-cultural practices. However, the scope of the study covered entrepreneurship by both men and women and it was done outside Nigeria. This study limited its scope to women entrepreneurship and it was conducted in Bauchi State of Nigeria.

Okafor and Mordi (2010) further found that government policy had a negative correlation with women entrepreneurship development and this affected other factors. The study limited its scope to the effect of environmental factors on women entrepreneurship; the current study focused on women entrepreneurial activities and poverty reduction.

2.3.4.2 Economic Factors and Women's Role in Poverty Reduction

According to Ozigbo (2014) there existed a positive association between entrepreneurship performance and economic factors. Furthermore, the study revealed that there was uneasy access to loans from mega banks in Nigeria by entrepreneurs to enable them start and/or expand their businesses. This had a negative effect on the start-ups as well the maintenance of existing enterprises. The end result was high poverty rate, unemployment and economic dependence on foreign countries.

However, literature review emphasized the fact that entrepreneurship has played an important role in economic growth, innovation and has improved the competitiveness of any nation. This was not in line with the title of the study, "The Effects of Selected Socio-economic Variables on the Entrepreneurship Performance in Nigeria". Moreover, the study did not explain to the reader the tool for data analysis neither did it explain how data was analysed. The current study reviewed literature in line with the variables of the study and explained the data analysis instruments and how they were used to analyse data to help the reader see the effect of economic factors on women entrepreneurs' efforts to reduce poverty.

Adeoye and Elegunde (2012) found that the external business environment especially the economic factor had impact on organizational performance. This included the small, medium as well as large organisations. However, the sample size of 124 respondents was too small for generalization in Nigeria. Moreover, the effect of the economic factor was limited to only the food and beverage industry in Nigeria. The current study used a sample size of 306 respondents in Bauchi Local Government Area of Bauchi State of Nigeria and the effect of the economic factors was measured on employment creation, food supply and income generation by women entrepreneurs.

Saleem (2012) also found that in Malaysia economic factors contributed significantly to the success of small businesses. However, the study focused on the impact of socio-economic factors on small businesses done by both men and women; moreover, the place of the study was Malaysia. The focus of the current study was on the effect of economic factors on entrepreneurial activities of women in micro enterprises and the study was conducted in Bauchi State, Nigeria.

2.4 Summary of Literature Review and Research Gaps

Abdullahi (2012) focused on the role of government in poverty eradication in Nigeria; the study by Akpanobong and Usoro (2010) was on, "Women Entrepreneurs' Poverty Alleviation and Sustainable Development in Nigeria." The study by Kabir and Huo (2011) was on how to improve the conditions of rural poor women through the growth of small enterprises in Bangladesh; while Akpor-Robaro (2012) studied, "Impact of Socio-cultural Environment on Entrepreneurial Emergence:

Theoretical analysis of the Nigerian society”. Shitu (2012) examined “Entrepreneurship and Poverty Reduction: Issues and Challenges Faced by Women Farmers in the Middle Belt Zone (North Central) Nigeria.”

Okafor and Mordi (2010) focused on, “Women entrepreneurship development in Nigeria: Effect of Environmental Factors” While Onwurafor and Enwelu (2013) concentrated on rural women’s entrepreneurship in agro-food processing in Enugu State, Nigeria; Ramgulam *et. al.* (2012) settled on socio-cultural issues in mice market in Trinidad. Adeoye and Elegunde (2012) focused on impacts of external business environment on organizational performance in the food and beverage industry in Nigeria and Saleem (2012) dealt with impact of socio-economic factors on small business success. None of the studies focused on women entrepreneurs’ participation and poverty reduction in Bauchi State, Nigeria; therefore, this study would fill the gap.

Table 2.1: Summary of Literature Review and Research Gaps

Author and year	Study Focus	Methodology	Findings	Limitations	Gaps	Contribution of current study
Abdullahi, (2012)	Role of government in poverty eradication in Nigeria. Role of government independent variable and poverty eradication dependent variable.	Descriptive method. Questionnaires, observation and government publications used to collect data from a sample of 80 respondents.	Poverty is associated with security, corruption and other vices in society. Government lack political will to deal with poverty	A sample of 80 is too small for generalization. Failure to use advanced inferential statistics.	No link between poverty eradication methods and poverty.	This study linked poverty reduction methods to poverty.
Akpanobong & Usoro, (2010).	Women entrepreneurs, poverty alleviation and sustainable development in Nigeria. Women entrepreneurs as independent variable and poverty alleviation and sustainable development as dependent variable	Survey method. Study population is 1,120. Questionnaire used to collect data from a sample of 120 and t-test used to analyse data.	Women entrepreneurs contribute significantly to poverty alleviation and sustainable development.	Indices of poverty alleviation and sustainable development not given for the reader to confirm claims of the study. Sample of 80 is too small for generalization.	No link between women entrepreneurship and poverty alleviation..	This study focused on women entrepreneurship and poverty reduction.
Kabir & Huo (2011).	Advancement of rural poor women through small entrepreneurship development. Entrepreneurship development as independent variable and advancement of rural poor women as	Survey method used. Interview used to collect data from a sample of 90 respondents.	Small enterprises generate self-employment activities that help to improve the living conditions of women and their families.	Data collection method is not rigorous enough and a sample of 90 respondents is too small for generalization.	The study did not associate women entrepreneurs to poverty reduction.	This study has linked women to poverty reduction.

	depen-dent variable.					
Akpor- Robaro, (2012).	Impact of socio-cultural environment on entrepreneurial emergence: theo-retical analysis of the Nigerian society. Socio-cultural environment as inde-pendent variable and entrepreneurial emergence as dependent variable.	Descriptive method used and observation technique is adopted for data collec-tion.	Nigerian socio-cultural environment contain more negative factors that push people into entrepreneurship than the positive factors that pull people into it.	Methodology lacks the required rigor because the study population, nor sample nor the tool for data analysis are given in the study.	General effect of socio-cultural environment is given in the study.	This study limited its scope to the effect of socio-cultural environ-ment on entrepre-neurial activities of women.
Shitu, S.(2012).	Entrepreneurship and poverty reduc-tion: Issues and challenges faced by women farmers in the Middle Belt Zone (North Central) Nigeria. Whereas entre-preneurship is the independent variable poverty reduction is the dependent vari-able.	Descriptive survey. 20 respondents randomly selected from one L.G.A. in each State. In all 120 respondents.	Finance is the greatest challenge faced by women entrepreneurs. Others are lack of education, poor stor-age facilities, use of traditional farm tools to mention but a few.	The issue of poverty not properly addressed by the study. In addition, a sample of 120 is too small for generalization in the region.	There is no proper link be-tween women entrepreneurship and poverty reduction.	This current linked women entrepreneurship and poverty reduc-tion
Okafor & Mordi (2010).	Women entrepreneurship development in Nigeria; Effect of environmental factors. While effect of environmental factors is an independent variable,	Descriptive survey. Data collected from a sample of104 respondents through structured ques-	Government policy has negative correla-tion on women entre-preneurship develop-	A sample of 104 is too small for generalization in Lagos state of Nigeria.	The role of women entre-preneurship on poverty is not	This study ex-plaind the role of women entrepre-neurship on pov-

	women entrepreneurship development is the dependent variable.	tionnaire.	ment.		covered by the study.	erty reduction
Onwurafor & Enwelu, (2013)	Rural women entrepreneurship in agro-food processing in Enugu State, Nigeria. Rural women entrepreneurship as independent variable and agro-food processing as dependent variable.	Survey design. Interview used to collect data. Multi-stage sampling technique used to collect data from a sample of 160 respondents.	Low level of rural women involvement/participation in agro-food processing activities.	Five objectives are used and only three hypotheses drawn. The two hypotheses focused on the issue of training.	The role of rural women entrepreneurship in agro-food processing is not linked to poverty reduction.	This study showed women participation in entrepreneurship and poverty reduction.
Ramgulam, Raghunandan-Mohammed and Raghunadan, (2012)	Exploring the dynamics of socio-cultural sustainability in Trinidad's Mice Market. Trinidad's mice Market is independent variable while socio-cultural sustainability as dependent variable.	Survey method. Questionnaires and interviews used to collect data from seven respondents.	Countries benefit when they pursue businesses in line with established socio-cultural practices in society.	Sample size of seven is too small for generalization.	Effect of socio-cultural factors on small businesses is discussed generally.	This study limited its scope to the effect of socio-cultural factors on women entrepreneurship.
Adeoye & Elegunde, (2012)	Impacts of external business environment on organizational performance in food and beverage industry in Nigeria. Impacts of external business environment as independent variable and organizational performance as dependent variable.	Survey method. Questionnaires used to collect data from 124 respondents. Multiple regressions used for data analysis.	External business environment especially the economic factor has impact on organizational performance.	The sample size of 124 is too small for generalization in Nigeria.	The effect of socio-economic factor on food and beverage industry is addressed in general terms.	This study limited its scope to the effects of socio-economic factor on food produced by women entrepreneurs.

Saleem, (2012).	The impact of socio-economic factors on small business success. Socioeconomic factors as independent variable while small business success as dependent variable.	Survey method. A sample of 60 respondents used. Questionnaire is used to collect data and regressions are used for analysis.	Economic factors have a positive and significant effect on the success of small businesses.	Literature review focused on yardsticks for measuring small business performance. Socio-economic factors are not discussed.	Effect of socio-economic factors on small businesses is generally considered by the study.	This study covers the effect of socio-economic factors on micro businesses undertaken by women entrepreneurs.
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Source: Researchers Compilation, 2015

2.5 Conceptual Framework

The conceptual framework was made up of three sets of variables. The first set of variables were the independent variables. They included women participation in employment creation its indicators were trading, services and agricultural activities; women participation in income generation had amount spent on bills, dependency reduction and amount of savings as its indicators. In addition, women participation in food supply's indicators was monetary value of food for consumption, monetary value of food for sale and the cost of food. The elements of the dependent variables are increased earnings, access to health facilities and more access to education. And the third category of variables was the moderating variables; the environmental factors comprised of economic and socio-cultural factors.

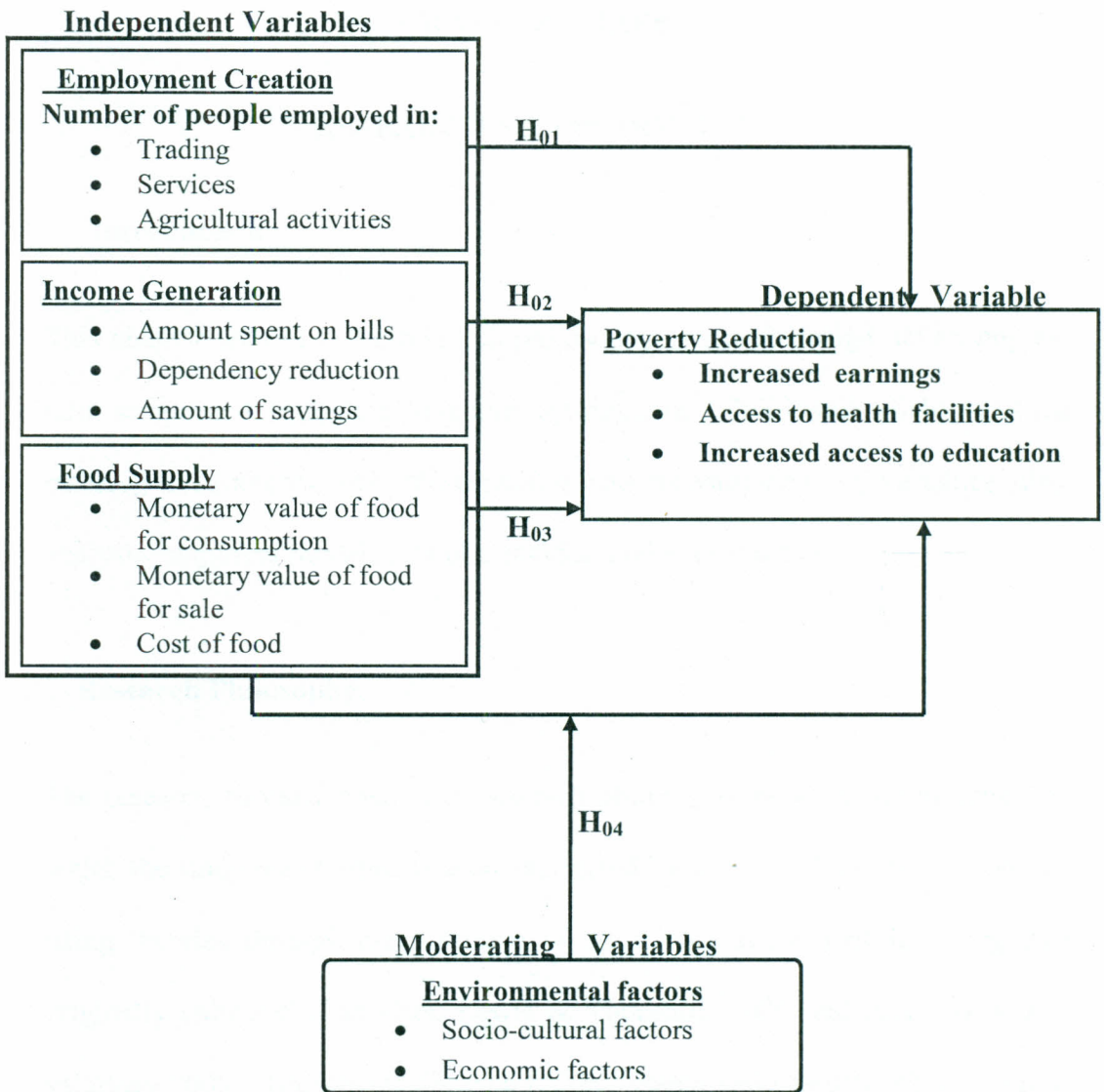


Figure 2.1: Conceptual Framework

Source: Researcher's Conceptualization, 2015.

In figure 2.1, the independent variable was women entrepreneurs' participation; its indicators included employment creation, income generation and food supply. The socio-cultural factors and economic factors were the moderating variables of the study. The dependent variable of the study was poverty reduction and it was measured against increased earnings, increased access to health facilities as well as increased access to education.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presented the research philosophy, research design, target population, sampling design, data collection instruments, validity and reliability of the research instruments, operationalization and measurement of variables, data analysis, empirical model, data presentation and ethical issues.

3.2 Research Philosophy

The research adopted positivism research philosophy because the literature on which the study was formed was characterized by testing of hypotheses from existing theories through measurement of observable social realities using data originally collected (Saunders, Lewis & Thornhill, 2009 and Eriksson & Kovalainen, 2008). Thorpe and Jackson (2008), Hatch and Cunliffe, (2006) agreed that positivism philosophy was based on values of reason, truth and validity and it focused solely on facts measured empirically using quantitative methods, survey and the data was statistically analyzed .

Other studies such as Akpanobong and Usoro (2010), Kabir and Huo (2011), and Shitu (2012) among others also used positivism research philosophy. Moreover, positivism research philosophy involved working with a social reality that could be observed (Saunders *et. al.*, 2009). Poverty was the social reality that has been observed in Nigeria in general and Bauchi state in particular. For example,

Nweke (2013) asserted that the poverty rate in Bauchi State was 65%, therefore this study adopted the positivism research philosophy in line with (Saunders *et al.*, 2009).

3.3 Research Design

Descriptive and explanatory research designs were employed for this study. The descriptive research design helped to portray an accurate profile of a group of people, in this case, women entrepreneurs while the explanatory design helped the association of poverty to women and their families (Kothari, 2004). Saunders *et al.* (2009) were of the view that using a combination of designs would provide better opportunities for trusted findings.

3.4 The Study Area

The National Population Commission (2010), reported that Bauchi state had a total population of 4,653,066 comprising of 2,369,266 (50.92%) males and 2,283,800 (49.08%) females. Bauchi Local Government area had a total population of 493,730, made up of 252,420 males and 241,310 females. Development Exchange Centre (2014) recognized and financed 1,500 women entrepreneurs in Bauchi Local Government Area of Bauchi State, which was the focus of this study. The map of Bauchi Local Government Area (L.G.A.) was attached as an appendix.

3.5 Target Population

The target population for this study was women entrepreneurs registered with the Development Exchange Centre (DEC) in Bauchi Local Government Area of

Bauchi State. According to Development Exchange Centre (2014), there were 1,500 women entrepreneurs who owned micro enterprises in Bauchi L.G.A. of Bauchi State. These constituted the population of this study. The women entrepreneurs financed by DEC had different skills in trading, farming, tailoring and saloon and services among others (DEC, 2014).

3.6 Sampling Design and Size

The sampling technique adopted for this study was stratified and random sampling. The population was divided into five strata based on entrepreneurial activities carried out by women entrepreneurs registered with DEC and a simple random sampling was carried out in each strata. The sample size of the study was 306 women entrepreneurs and was determined in line with Ayoub and McCuen formula (2000) as shown below:

$$SS = \frac{Z^2 \times P(1 - P)}{C^2}$$

Where: SS = Sample Size;

Z = Z value;

P = Percentage of picking a choice; and

C = Confidence interval.

$$SS = \frac{1.96^2 \times 0.5(1 - 0.5)}{0.5^2} = 384$$

$$\text{New SS} = \frac{SS}{1 + \frac{SS-1}{POP}} = \frac{384}{1 + \frac{384-1}{1500}} = 306$$

The sample size of women entrepreneur's activities in Bauchi Local Government was stratified using the formula:

$$\text{Sample size for each activity} = \frac{\text{Population of each activity} \times \text{total sample size}}{\text{Total population}}$$

Table 3.1: Distribution of Sample Size

Women Entrepreneurial Activities	Population	Sample Size
Agricultural activities	570	116
Tailoring	200	41
Saloon	225	46
Trading	455	93
Bakery	50	10
Total	1500	306

Source: Author's computation, 2015.

3.7 Data Collection Instrument

Primary data was collected for this study from women entrepreneurs in Bauchi Local Government Area (L.G.A.) of Bauchi State, and a structured questionnaire was used to collect data. Two female research assistants administered the questionnaire to the respondents through drop and pick method within seven days. The questionnaire was designed to collect relevant information from the respondents which covered the area of interest of this study. For simplicity, the questions addressing each of the variables of interest were indicated in Table 3.2. Also indicated in the table was the operationalisation of each variable and their respective indicators.

Table 3.2: Operationalization and measurement of Variables

Variable	Operationalization	Indicators	Measurement in questionnaire
Dependent Variable			
Poverty reduction	Increased earnings by households	Increase in disposable income. Access to health facilities. Increased level of enrolment in schools Continuation of education	Questions 43 – 55
Independent Variables			
Employment Creation	The number of people employed in: Trading Agricultural activities Services	Increase in number of traders Increased supply of agricultural products More available hair dressing saloons restaurants among others	Questions 7-17
Income generation	Reduction of dependency . More money for fees Increased savings	Increase in ownership of properties Increased contribution to family income Expansion of existing businesses	Questions 27 – 42
Food supply	Value of food for consumption and sale. Cost of food.	More food available for consumption and sale Reduction in the cost of food	Questions 18 – 26
Moderating Variables. (Environmental factors)			
Socio-cultural factors	Religion Customs	Types of businesses established Types of products consumed Preferred products	Questions 56 -59
Economic factors	Access to capital Interest rate Rate of inflation	Easy or difficult access to capital Low or high interest rates Stable currency or high level of inflation	Questions 60 – 68

Source: Researcher Compilation, 2015.

3.8 Validity and Reliability of data Collection Instruments

The validity and reliability of the study were discussed in this section of the study. The discussion was divided in two sub-sections as followed: the validity of data collection was discussed in sub-section 3.8.1 while the reliability of data collection instruments was discussed in the next sub-section.

3.8.1 Validity of Data Collection Instruments

Pallant (2001) argued that the validity of a scale means the degree to which it measures what it was supposed to measure. It further stated that the validation of a scale required the collection of empirical evidence about its use. Among the different types of validity: content, criterion and construct, this study employed construct validity which required testing a scale, not against a single criterion, but in terms of theoretically derived hypotheses concerning the nature of the underlying variables. This was to help overcome possible error that might likely occur when a single criterion was used.

3.8.2 Reliability of Data Collection Instruments

Reliability of a scale shows how free it is from random error. Tavakal and Dennik (2011) maintained that Cronbach's coefficient alpha was designed to test the internal consistency of the instruments. The normal range measure of Cronbach's alpha value is between 0.000 and +1. The acceptable and recommended level of alpha is 0.70 and above (George & Mallery, 2003). Tavakal and Dennik (2011) further asserted that reliability test showed the amount of measurement of error in a test.

Table 3.3: Result of Reliability Test

Variable	Number of items	Cronbach's Alpha
Poverty reduction	13	0.955
Employment creation	11	0.942
Food supply	9	0.955
Income generation	9	0.937
Socio cultural factor	4	0.865
Economic factors	9	0.900
Overall	62	0.976

Source: Researcher's Computation, 2015.

From Table 3.3 above, all the variables attained the recommended threshold. Cronbach's alpha was considered the most appropriate because of multi-item scale used to measure the variables (George & Mallery, 2003).

3.9 Data collection procedure

Primary data was collected through a structured questionnaire, which was administered to respondents with the help of two (2) female research assistants who were employees of Development Exchange Centre, Bauchi State.

3.10 Data Analysis

The data collected from primary source using structured questionnaire was analysed using descriptive and inferential analysis. Descriptive statistics was used to describe the characteristics of the respondents, and was analysed using: frequency distribution, percentages, mean and standard deviation. The inferential analysis was carried out using the multiple regressions in order to determine the effect and nature as well as the magnitude of the relationship that existed

between the independent and dependent variables (Gujarati & Porter, 2009). Statistical analysis was conducted using Statistical Package for Social Science (SPSS). Step-wise method was employed for the regression analysis.

Various diagnostic tests were carried out to ensure that the data conformed to the requirements of regression analysis. Normality test was carried out using Jarque-Bera (JB) statistic. According to Gujarati and Porter (2009) normality test was carried out to find out whether the error term followed the normal distribution. Multicollinearity test was also carried out on the variables using variance inflation factor (VIF) where $VIF \geq 10$ indicated the presence of multicollinearity. R-squared made it possible to examine the influence of all the independent variables combined. This was followed by determination of standardization beta (β) coefficient which indicated the direction (+ or -) and the magnitude of the influence as well as compared the relative contribution of each independent variable.

To meet the assumption of linearity, the linear relationship of the independent variables on the dependent variables was tested using the correlation coefficient as suggested by Greene, (2002) and Cohen, West and Aiken (2003). This test was carried out using Pearson Correlation. Linear relationship existed between the independent variable and the dependent variable if the correlation coefficients of the independent variables were statistically significant with P values less than 0.001 (Field, 2009). The range of Pearson Correlation coefficient is between -1.0 and +1.0.

Coefficients close to 0 represented a weak relationship while coefficients close to 1.0 or -1.0 represented a strong relationship. Generally, correlation greater

than 0.7 is considered strong while correlation less than 0.3 is considered weak. However, correlation between 0.3 and 0.7 is considered moderate. Significant correlations were flagged with asterisks. A significant correlation indicates a reliable relationship, but not necessarily a strong correlation.

3.11 Empirical Model

To test the direct effect of the relationship between the dependent and independent variables, the general model was specified as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e \dots\dots\dots 3.1$$

Where: Y = Poverty reduction;

X_1 = Employment creation;

X_2 = Food supply;

X_3 = Income generation;

$\beta_0, \beta_1, \beta_2, \beta_3$ are the parameters to be estimated and

ε is the error term.

Incorporating the moderation effects (socio-cultural and economic factors), the empirical model to be estimated was specified as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4Z_1 + \beta_5Z_1X_i + e \dots\dots\dots 3.2$$

Where: Z_1 = Socio-cultural factors; and

β_4 , and β_5 are the parameters to be estimated.

Similarly, for the economic factors the model to be estimated was specified as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_6Z_2 + \beta_7Z_2X_i + e \dots\dots\dots 3.3$$

Where: Z_2 = Economic factors; and, β_6 and β_7 are the parameters to be estimated.

The moderator effects were indicated by the interaction of X_i and the Z 's (Z_1 and Z_2).

The reduced form of equations 3.2 and 3.4 was as specified in 3.4 below

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 Z_1 + \beta_6 Z_2 + \beta_5 Z_1 X_i + \beta_7 Z_2 X_i + e \dots \dots \dots 3.4$$

3.12 Ethical Issues

According to the requirement in Nigeria, due permission for data collection from Development Exchange Centre, Bauchi was given by the Graduate School of Kenyatta University. Confidentiality was addressed by assuring the respondents that the information they provided was specifically for research only and that there was no gain or loss for failing to participate in the research.

CHAPTER FOUR

EMPIRICAL RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presented the analysis and results of the study in line with the objectives earlier stated. Included in this chapter also, was the respondent characteristics, descriptive analysis results and findings, diagnostic tests results as well as the test of research hypotheses.

4.2 Response Rate

The response rate to the questionnaire administered to women entrepreneurs in Bauchi Local Government of Bauchi State was as presented in Table 4.1 below.

Table 4.1: Respondents' Response Rate

Sample size	Number	Percentage
Correctly filled and returned	295	96.4
Not returned	11	3.6
Total	306	100

Source: Researcher's Computation, 2015

The study sample size was 306 respondents; however, 295 were correctly filled and returned while the remaining 11 were not returned. The returned questionnaire formed the study response rate which accounted for 96.4%. The response rate was adequate since according to Mugenda and Mugenda (2003) a response rate of 60% was regarded as good while a response rate of 70% and above was regarded as adequate response. The result presented, therefore, was based on the responses from the questionnaire that were correctly filled and returned.

4.3 Respondents' Characteristics

The characteristics of respondents in terms of education, religion, marital status, age, years in business and number of respondents' children were presented in Table 4.2.

Table 4.2 showed that majority (32.5%) of the women had attained diploma as their highest level of education, 29.5% had university degrees, and 14.6% had secondary school qualifications, and 9.8% and 7.1% had primary and non-formal education respectively while 6.4% had no education. This implied that most women entrepreneurs had formal educational qualifications which could be beneficial in the day to day running of their businesses.

Fifty eight per cent (58%) of the respondents practiced Christianity followed by 41% who practiced Islamic religion and only 1% practiced traditional religion. The implication was that most of the women involved in entrepreneurship were Christians. They were either indigenes or migrants. However majority of the population of Bauchi local Government Area and by extension Bauchi State were Muslims. This meant that more Muslim women in the State had not yet embraced entrepreneurship due to cultural beliefs. Therefore the chances of reducing poverty among the Muslim families were still low.

Majority (50.2%) of the respondents were married followed by 40% who were single and 4.4% were divorced and 5.4% were widowed. Since there were responsibilities associated with the family, the women entrepreneurs could attain economic empowerment which would assist in the upbringing of their families. Furthermore, majority (42.7%) of the respondents were aged between 20 to 29

years, followed by 37.3% who were aged between 30 to 39 years, 16.6% were aged between 40 to 49 years and 3.4% were aged between 50 to 59 years. This implied that majority of the enterpreneurs were young and inexperienced thus, there was need to sensitize them on the need for prudent business management in order to ensure sustainability. It could further be implied that the women had the propensity to stay long in business and acquire more experience and perform better in terms of poverty reduction.

Table 4.2: Background Characteristics of Respondents

Variable	Options	Frequency	Percentage
Education	Degree	87	29.5
	Diploma	96	32.5
	Secondary	43	14.6
	Primary	29	9.8
	Non-formal	21	7.1
	None	19	6.4
	Total	295	100
Religion	Christianity	172	58.3
	Islam	120	40.7
	Traditional	3	1
	Total	295	100
Marital status	Married	148	50.2
	Single	118	40
	Divorced	13	4.4
	Widowed	16	5.4
	Total	295	100
Age	20-29years	126	42.7
	30-39years	110	37.3
	40-49years	49	16.6
	50-59years	10	3.4
	Total	295	100
Number of children	1-4	117	39.7
	5-8	54	18.3
	9-12	16	5.4
	None	108	36.6
	Total	295	100
Years in business	Less than 1 year	70	23.7
	1-5 years	131	44.4
	6-10 years	73	24.7
	11-15 years	21	7.1
	Total	295	100

Source: Researcher's Computation, 2015

In addition, majority of the respondents (39.7%) had between one and four children, according to government policy on fertility, followed by 36.6% who had no child while the remaining proportion had more than four children. This implied that most of the women entrepreneurs sampled had dependents hence the

need to sustain their businesses as an ongoing concern in order to have a regular source of income to enable them to take care of their children.

Finally, regarding the number of years in business majority of the respondents 44.4% had been in business between one (1) to five (5) years, followed by 24.7% of the respondents who had been running their businesses between 6 to 10 years, 23.7% had been in operation for less than one year. This implied that majority of the businesses were in the incubation period therefore, there was need for proper guidance on how to run the enterprises so as to increase their chances of sustainability and growth that would eventually lead to poverty reduction.

4.4 Descriptive Statistics

The descriptive results and findings of the key variables used in this study were presented and discussed in this section. The respondents were expected to rank their preferences on a five point Likert scale and their responses were summarized using frequencies and percentages.

4.4.1 Employment Creation and Poverty Reduction

In this section, the respondents indicated their level of participation in trade, services and agricultural activities in relation to employment creation on a five point Likert scale: to no extent=1, to very slight extent=2, to a slight extent=3, to a large extent=4 and to a very large extent=5.

Table 4.3 Descriptive Results for Women Entrepreneurs' Employment Creation and Poverty Reduction

	To no extent		To very slight extent		To a slight extent		To a large extent		To a very large extent		Mean	Std. Dev.
	f	%	f	%	f	%	f	%	f	%		
Trade												
Buying and selling of Household item	142	48	33	11	38	13	55	19	27	9	2.3	1.5
Buying and selling of animals	157	53	40	14	32	11	49	17	17	6	2.1	2.4
Services												
Tailoring	141	48	26	9	41	14	64	22	23	8	2.3	1.4
Saloon	171	58	25	9	26	9	52	18	21	7	2.1	1.4
Restaurant	154	52	24	8	37	13	55	19	25	9	2.2	1.5
Provision of Human Labor	139	47	41	14	30	10	51	17	34	12	2.3	1.5
Agricultural Activities												
Poultry	153	52	32	11	43	15	48	16	19	6	2.2	1.4
Cattle rearing	167	57	32	11	36	12	43	15	17	6	2.0	1.3
Fishery	166	56	29	10	33	11	44	15	23	8	2.1	1.4
Food crops	136	46	35	12	45	15	57	19	22	8	2.3	1.4
Vegetables	149	51	31	11	36	12	59	20	20	7	2.2	1.4
Aggregate for women empowerment											2.2	1.4

Source: Researcher's Computation, 2015.

Table 4.3 showed that majority 48% and 53% of the respondents reported that their participation in the business of selling household items and animals, respectively, was to no extent. In addition, 48% and 58% participated in tailoring and saloon businesses to no extent, respectively, further, 52% reported that they participated in the restaurant business to no extent. Finally, majority 47% reported that they participated in provision of human labor to no extent.

From the foregoing findings, it could be implied that most of the women entrepreneurs' participation in tailoring, saloon, restaurant and provision of human labor was low. Therefore there were also low chances of poverty reduction. Thirdly, the study sought to find out the level of participation in the agricultural sector. The results showed that 52% reported that they participated to no extent in the poultry farming, also an overwhelming number 57% of respondents reported that they participated to no extent in cattle rearing, moreover, the findings further revealed that 56% participated to no extent in fish farming. The study also revealed that 46% of the respondents did participate in food crop farming to no extent, and 51% did participate in vegetables farming to no extent.

From the foregoing findings, there were also low chances of poverty reduction by the women entrepreneurs and high chances of increased or continued poverty level since few respondents were pursuing agriculture as a form of employment which implied that they might have to buy food items and since there was high level of poverty in the State according to Nweke (2013) the money to buy food was not available and therefore there was low employment in trading, services and agricultural activities. On the overall, the women reported that they were slightly involved in employment creation activities.

From Table 4.3, the aggregate mean and standard deviation was 2.2 and 1.4, respectively. This meant that women participation in employment creation was relatively low. This could be explained by the fact that most (44%) of the women had been in business for not more than five years. Therefore they needed more time to grow their businesses in order to employ more people. In terms of education, most of the women entrepreneurs (33%) and (30%) had diploma and uni-

versity degrees respectively. This could enable them to employ effective management techniques to run their businesses and thereby employ more people.

Another consideration was the fact that since most of the women entrepreneurs (50%) were married with children they would be motivated to work hard in order to maintain their families. This could also lead to the expansion of their businesses and thus employ more people. The finding of this study agreed with the report by Kelly, Brush, Greene, Litovsky and Global Entrepreneurship Monitor (2013), and previous studies by Rao, Rao and Ganesh (2010) and Choudhary (2013) in India where women entrepreneurs created employment thereby helped to reduce poverty in the United States of America and India respectively.

4.4.2 Women Entrepreneur's Income Generation and Poverty Reduction

Respondents were requested to indicate amount of earnings on a five point Lickert scale: 0 – 33 dollars; 33 - 67 dollars; 67- 100 dollars; 100 – 133 dollars and 133 dollars and above. The results were presented in Table 4.4.

Table 4.4 Descriptive Results for Women Entrepreneur's Income Generation and Poverty Reduction

	0 - 33		33 - 67		67 - 100		101 - 133		133 and above		Mean	Std. Dev.
	f	%	f	%	f	%	f	%	f	%		
Sale of grains	166	56	31	11	31	11	46	16	21	7	2.1	1.4
Bakery	171	58	30	10	36	12	39	13	19	6	2.0	1.4
Poultry	161	55	34	12	31	11	45	15	24	8	2.1	1.4
Tailoring	143	49	32	11	37	13	55	19	28	10	2.3	1.5
Hair dressing saloon	163	55	29	10	39	13	39	13	25	9	2.1	1.4
Cattle rearing	164	56	36	12	37	13	38	13	20	7	2.0	1.4
Restaurant	144	49	32	11	40	14	50	17	29	10	2.3	1.5
Sale of vegetables	150	51	40	14	41	14	44	15	20	7	2.1	1.4
Buying and selling of other household items	138	47	46	16	44	15	43	15	24	8	2.2	1.4
Aggregate for Income generation											2.1	1.4

Source: Researcher's Computation, 2015.

The findings presented in table 4.4 indicated that majority of the respondents (53%) earned between 0 to 33 dollars from the sale of grains, secondly, 58% earned between 0 to 33 dollars from bakery and thirdly, majority 55% reported that they earned between 0 to 33 dollars from the sale of poultry. Furthermore, majority, 49% earned between 0 to 33 dollars from tailoring, also an overwhelming number of respondents (55%) reported that they earned between 0 to 33 dollars from hair dressing saloon.

In addition, 56% earned between 0 to 33 dollars from cattle rearing, again, majority earned between 0 to 33 dollars from restaurant, sale of vegetables and buying and selling of household items; 49%, 51% and 47%, respectively. On the av-

erage, the women were involved in income generating activities earned between 33 and 67 dollars. This meant that there was low or no possibility for women entrepreneurs to save and invest. As a result, the possibility of reducing poverty through income generation was low and if it continued at this rate it would take much longer time for poverty to be reduced to a large extent in the society. However, since 50% of the women entrepreneurs were married, their husbands could supplement their income to either enable them expand their businesses and thereby generate more income or help them to better maintain their families.

Alternatively, because most of them were educated 32% and 30% acquired diplomas and university degrees respectively the women could get money from other sources such as loans from financial institutions or gifts from relatives or friends to add to their income from their businesses to reduce poverty at a faster rate. Furthermore, since most of the women entrepreneurs were young (43%), they could stay longer in business and generate more income to either expand their businesses or better maintain their families.

The $M=2.14$; $SD=1.39$ in table 4.4 above, which meant that women earned an income of between 33 to 67 dollars. This was relatively low however; it showed that there was a positive relationship between women entrepreneurs' income generation and poverty reduction. The finding of this study about women entrepreneurs' ability to generate income concurred with that of Selamat, Razak, Gapor and Sanusi (2011) whose study was conducted in Malaysia which reported that entrepreneurship could be a means of income generation by women.

Furthermore, the finding of this study agreed with Okafor and Mordi (2010) which asserted that women were involved in entrepreneurship in order to provide income for their families thereby helped to maintain their homes. Information on the uses of income generated was sought. The result was presented in Table 4.5.

Table 4.5 Uses of Income

Amount spent on	0 -33		33 -67		67-100		101-133		133 and above		Mean	Standard Deviation
	f	%	f	%	f	%	f	%	f	%		
Children education	56	19	47	16	77	26	72	24	43	15	3	1.3
Health	76	26	50	17	76	26	62	21	31	11	2.7	1.3
Food	52	16	49	17	81	28	65	22	48	16	3	1.3
Aggregate use of income											2.9	1.3

Source: Researcher’s Computation, 2015.

The result for the use of income revealed that, majority 26% reported that they spent between 67 to 100 dollars on children school fees while 15% spent more than 133 dollars on education. Secondly, 26% either spent between 0to33 or 67 to -100 dollars on health. In addition, majority 28% spent between 67 to 100 dollars on food followed by 26% on education of children and 26% on health. On average most families incurred an expenditure of between 67 to 100 dollars which implied that some significant amount of money to meet family needs was sought from alternative sources. It was possible that since most of the respondents were married (50%) either their spouses contributed to their families incomes thereby enabled the women to spend between 67 to 100 dollars more than they earned between 33 to 67 dollars. On the other hand, because most of the women were educated 30% degree holders and 33% diploma holders; together

63% were relatively educated; they might have either gotten additional income from financial institutions or donations from friends and relatives. The finding of this study concurred with that of Misango and Ongiti (2013) in Kenya and Kabir and Huo (2011) in Bangladesh respectively.

Table 4.6: Mode of Savings

Amount Saved	0 - 33		33 -67		67- 100		101- 133		133 and above		Mean	Std. Dev.
	f	%	f	%	f	%	f	%	f	%		
Amount of money saved in a week	54	18	41	14	91	31	85	29	24	8	3.0	1.2
Amount saved since the business started	29	10	45	15	76	26	76	26	69	23	3.4	1.3
Money ploughed back into the business	41	14	44	15	80	27	89	30	41	14	3.2	1.2
Amount spent on acquisition of assets	36	12	53	18	62	21	90	31	54	18	3.3	1.3
Aggregate for mode of savings											3.2	1.3

Source: Researcher's Computation, 2015.

Table 4.6 showed that majority of the respondents 31% saved between 67 to 100 dollars; secondly, 26% reported that they saved either between 67 to 100 dollars and/ or 101 to 133 since the inception of their businesses. This implied that there was a saving culture among women entrepreneurs. Moreover, majority, 30% reported that they ploughed back between 101 to 133 dollars since the inception of their businesses. Finally, majority 31% reported that they spent between 101 to

133 dollars on acquisition of assets. Overall, the average savings ranged between 67 to 100 dollars. This meant since 50% were married and 63% had children and possibly coupled with the desire to succeed in their businesses the women demonstrated strong capacities to save, plough back income into their businesses and acquire assets. This finding was in line with a study carried out in Bangladesh by Kabir and Huo (2011) about the saving culture of women entrepreneurs.

4.4.3 Women Entrepreneur's Food Supply and Poverty Reduction

Respondents were requested to indicate their level of participation in food supply activities geared towards poverty reduction on a five point Likert scale; to no extent, to very slight extent, to slight extent, to a large extent and a very large extent. Both frequencies and percentages were used to summarize the responses as shown in Table 4.7.

Table 4.7 Descriptive Results for Women Entrepreneurs' Food Supply and Poverty Reduction

	To no extent		To very slight extent		To a slight extent		To a large extent		To a very large extent		Mean	Std. Dev.
	f	%	F	%	f	%	f	%	f	%		
Grains production	119	40	46	16	56	19	46	16	28	10	2.4	1.4
Bread production	159	54	33	11	37	13	45	15	21	7	2.1	1.4
Selling of food produced	127	43	37	13	56	19	47	16	28	10	2.4	1.4
Fish farming	153	52	36	12	47	16	39	3	20	7	2.1	1.4
Goat rearing	157	53	39	13	33	11	47	16	19	6	2.1	1.4
Sheep rearing	160	54	37	13	36	12	51	17	11	4	2.0	1.3
Poultry	142	48	46	16	42	14	54	18	11	4	2.1	1.3
Eggs production	153	52	42	14	39	13	47	16	14	5	2.1	1.3
Tomatoes farming	164	56	23	8	45	15	46	16	17	6	2.1	1.4
Aggregate women entrepreneurial											2.2	1.4

Source: Researcher's Computation, 2015.

Table 4.7 showed that majority of the respondents 40% participated to no extent in grain production, secondly, majority 54% participated to no extent in bread production and thirdly, 43% participated to no extent in selling of food produced. Moreover, 52% participated in fish farming to no extent. Although, majority 53% participated to no extent in goat rearing 16% participated to a large extent in it. Close examination of sheep rearing, poultry farming, eggs production and tomato farming showed that majority 54%, 48%, 52% and 56% participated to no extent in those activities respectively.

Since they was low level of participation in food supply related activities this

implied there was low food supply by women entrepreneurs and therefore low poverty reduction through food supply by women entrepreneurs; it further implied that there were opportunities to be exploited in relation to food supply by women entrepreneurs. This could be attained through encouraging more women entrepreneurs to venture into fish farming, goat rearing, bread production, grains production among others. The average entrepreneurial skills amongst women were a very slight extent. This implied that there was a positive relationship between women entrepreneurs' food supply and poverty reduction.

This finding was in agreement with that of Mehra and Rojas (2008), that women supplied food thus, helped to reduce poverty. In table 4.7 above, $M=2.2$; $SD=1.4$, this meant that the contribution of women entrepreneurs to poverty reduction through food supply was very low. The contribution of women fell in the second option in the questionnaire that was, to very slight extent. The finding of this study agreed with Shitu (2012) that women entrepreneurs supplied food in the middle belt region of Nigeria. Furthermore, the study concurred with that of Otoo *et. al.* (2010) that women entrepreneurs supplied food in Ghana and Nigél.

4.4.4 Environmental Factors and Poverty Reduction

The environmental factors considered in this study were socio-cultural factors and economic factors. Respondents were requested to state their level of agreement with the statements on a five point Lickert scale; not at all, strongly disagree, disagree, agree and strongly agree. The results were presented below. Regarding the socio-cultural factors, the results were presented in Table 4.8.

Table 4.8 Socio-cultural Factors

	Not at all		Strongly disagree		Disagree		Agree		Strongly Agree		Mean	Std. Dev.
	f	%	f	%	f	%	f	%	f	%		
I enjoy positive attitude of customers in my business	30	10	24	8	54	18	144	49	43	15	3.5	1.2
Religious beliefs have positive effect on my business	54	18	25	9	51	17	116	39	49	17	3.3	1.3
The size of my family have a negative effect on my business	66	22	38	13	54	18	87	30	50	17	3.1	1.4
The Culture in my community have positive effect on my business	67	23	37	13	58	20	84	29	49	17	3.0	1.4
Aggregate for socio-cultural factors											3.2	1.2

Source: Researcher’s Computation, 2015.

Table 4.8 showed that majority 49% agreed that they enjoyed positive attitude of customers in their business; secondly, majority 39% agreed that religious beliefs had positive effects on their business while; thirdly, majority 30% agreed that the size of their family had a negative effect on their businesses. Finally, majority 29% agreed that the culture in the community had positive effect on their businesses. On average the respondents disagreed that socio-cultural factors had a moderating effect on poverty reduction. This can be explained by the fact that

58% of the respondents were Christians therefore the culture of seclusion (that is, staying indoors in their houses) did not apply to them. Furthermore, 40% of the women were not yet married as such they were not under strict Islamic rules that were applied to married women. The results of the economic factors were presented in Table 4.9.

Table 4.9 Economic Factors

	Not at all		Strongly disagree		Disagree		Agree		Strongly Agree		Mean	Std. Dev.
	f	%	F	%	f	%	F	%	F	%		
The cost of labor in my community is high	45	15	33	11	72	24	114	39	31	11	3.2	1.2
Entrepreneurs have easy access to capital	30	10	29	10	75	25	126	43	35	12	3.4	1.1
The cost of raw materials is high	42	14	26	9	79	27	112	38	36	12	3.3	1.2
I enjoy high customer patronage	20	7	25	9	76	26	128	43	46	16	3.5	1.1
Cost of transportation is low in my environment	43	15	32	11	75	26	97	33	47	16	3.3	1.3
Raw materials are readily available in abundance	18	6	28	10	82	28	122	41	45	15	3.5	1.1
The cost of power (electricity) is very low	41	14	37	13	74	25	95	32	48	16	3.2	1.3
Inflation adversely affects my business transactions	29	10	23	8	76	26	116	39	51	17	3.5	1.2
Stable availability of electricity	46	16	37	13	82	28	81	28	49	17	3.2	1.3
Aggregate for economic factors											3.3	1.2

Source: Researcher’s Computation, 2015.

Table 4.9 showed that majority 39% agreed that the cost of labor in their community was high; an overwhelming number of respondents 43% agreed that entrepreneurs have easy access to capital, again, majority of the respondents 38%

agreed that the cost of raw materials was high; again 43% of the respondents agreed that they enjoyed high customer patronage. Furthermore, majority of the respondents 33% agreed that the cost of transportation was low; 41% agreed that raw materials were readily available; 32% agreed that the cost of electricity was low and 39% agreed that inflation adversely affected their business transactions.

Lastly, 28% disagreed that there was stable electricity supply in their environment. Generally, the respondents disagreed that economic factors had a moderating effect on poverty reduction. The explanation for this could be that the women entrepreneurs were provided with capital to do their businesses by DEC. This was contrary to findings by studies carried out by previous researchers such as Ozigbo (2014) and Adeoye and Elegunde (2012) that economic factors had a positive influence on the performance of businesses.

4.5 Regression Analysis

Before carrying out the regression analysis, it was important to do a number of diagnostic tests. This was necessary so as to ascertain that the models specified in this study were accurately estimated and that the assumptions of multiple linear regressions were not violated (Greene, 2012). In the light of this, testing of normality, linearity and multicollinearity were carried out and the results were presented below.

4.5.1 Diagnostic Tests

The diagnostic tests carried out in this study were normality test, linearity test and multicollinearity test.

4.5.1.1 Normality Test

To ascertain that the variables used in this study were normally distributed, skewness and kurtosis were used to test normality. The normality tests results for variables were recommended to have values between -1 and + 1 (Myoung, 2008).

The results were as presented in Table 4.10 below.

Table 4.10 Normality Test Results

	Skewness		Kurtosis		Conclusion
	Statistic	Std. error	Statistic	Std. Error	
Poverty Reduction	-0.388	0.142	-0.88	0.283	Normally distributed
Employment Creation	0.829	0.142	-0.703	0.283	Normally distributed
Food Supply	0.762	0.142	-0.767	0.283	Normally distributed
Income Generation	0.961	0.142	-0.389	0.283	Normally distributed
Environmental Factors	0.739	0.142	-0.321	0.283	Normally distributed

Source: Researcher's Computation, 2015.

Table 4.10 indicated that the values of poverty reduction (skewness -0.388, kurtosis -0.88); employment creation (Skewness 0.829, kurtosis -0.703); food supply (skewness 0.762, kurtosis -0.767); income generation (skewness 0.961, kurtosis -0.389) and environmental factors (skewness 0.739, kurtosis -0.321). This implied that the variables of this study were normally distributed and as such further tests could be carried out on the data.

4.5.1.2 Linearity Test

To meet up with the assumption of linearity, the linear relationship of the independent variables on the dependent variables was tested using the Pearson correlation as recommended by Greene, (2002) and Cohen, West and Aiken (2003). The linearity results were shown in Table 4.11.

Table 4.11 Linearity Test Results

Variables		Poverty Reduction	Conclusion
Employment Creation	Pearson Correlation	.515**	Linear
	Sig. (2-tailed)	0.000	
	N	295	
Food Supply	Pearson Correlation	.506**	Linear
	Sig. (2-tailed)	0.000	
	N	295	
Income Generation	Pearson Correlation	.547**	Linear
	Sig. (2-tailed)	0.000	
	N	295	
Environmental factors	Pearson Correlation	.607**	Linear
	Sig. (2-tailed)	0.000	
	N	295	

Source: Researcher's Computation, 2015.

Results presented in Table 4.11 indicated that there was a positive and significant relationship between employment creation and poverty reduction ($r = 0.515$, $p\text{-value} < 0.01$), this implied that an increase in employment creation led to 51.5% increase in poverty reduction. Secondly, there was a positive and significant relationship between food supply and poverty reduction ($r = 0.506$, $p\text{-value} < 0.01$), this implied that an increase in food supply led to 50.6% increase in poverty reduction. Thirdly, there was a positive and significant relationship between poverty

reduction and income generation ($r = 0.547$, $p\text{-value} < 0.05$), this implied that an increase in income generation led to 54.7% increase in poverty reduction.

Furthermore, there was a positive and significant relationship between socio-cultural factors and poverty reduction ($r = 0.452$, $p\text{ value} < 0.01$), this implied that an increase in involvement in socio-cultural factors might lead to 45.2% increase in poverty reduction. There was a positive and significant relationship between poverty reduction and economic factors ($r = 0.408$, $p\text{- value} < 0.01$), this implied that a positive change in economic factors was associated with 40.8% increase in poverty reduction.

The correlation coefficients for the four independent variables were moderate and statistically significant with $p\text{-values} < 0.01$. This was an indication of a linear relationship between each individual independent variable and the dependent variable as suggested by (Field, 2009). Therefore, the linear regression was suitable and the models specified in the study could be accurately estimated.

4.5.1.3 Multicollinearity Test

Multicollinearity arises when two or more independent variables are highly correlated with each other (DeFusco, 2007). To determine whether multicollinearity would pose a problem in regression analysis, the data was subjected to a test. This study employed tolerance and variance inflation factor (VIF) analysis to determine the multicollinearity. VIF that was less than 10 and tolerance value of more than 0.1 showed the absence of multicollinearity (Field, 2009). The results were presented in Table 4.12.

Table 4.12: Multicollinearity Test Results

Variables	Tolerance	VIF
Employment Creation	0.13	7.82
Food Supply	0.13	8.00
Income Generation	0.15	6.86
Environmental: Socio Cultural factors	0.54	1.86
Economic factors	0.53	1.90
Overall mean		5.29

Dependent Variable: Poverty Reduction

Source: Researcher's Computation, 2015.

Table 4.12 revealed that the VIF for employment creation = 7.82; food supply = 8.00; income generation = 6.86; socio-cultural factors = 1.86, and economic factors = 1.90. The mean VIF for all the variables was 5.29. Table 4.12 also revealed that the tolerance range was between 0.13 and 0.54. Results of the study revealed no multicollinearity problem for the variables. Therefore, all the variables were retained in the model and used in the regression analysis.

4.5.2 Test of Hypotheses

In this section, the hypotheses earlier stated were tested in order to validate or refute the claims made. To achieve this, the regression results of the models specified in this study as well as the associated ANOVA results were presented and interpreted. The regression analysis was carried out to examine the nature of the relationship between independent and dependent variables under investigation while the ANOVA showed the models test of significance.

The hypotheses tested in this study were:

H₀₁: There is no relationship between women entrepreneurs' employment creation and poverty reduction in Bauchi State, Nigeria.

H₀₂: There is no relationship between women entrepreneurs' income generation

and poverty reduction in Bauchi State, Nigeria.

H₀₃: There is no relationship between women entrepreneurs' food supply and poverty reduction in Bauchi State, Nigeria.

H₀₄: Environmental factors have no moderating effects on the relationship between women entrepreneurs' participation and poverty reduction in Bauchi State, Nigeria.

4.5.2.1 Test of Hypothesis One

The first hypothesis sought to establish the relationship between women entrepreneurs' employment creation and poverty reduction in Bauchi state, Nigeria.

The results were presented in Table 4.13.

Table 4.13: Regression Results for Employment Creation

Model Summary		R	R ²	Adjusted R ²	Std. Error of Estimate	
1		.515 ^a	0.265	0.263	10.73873	
ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12200.36	1	12200.36	105.8 ^{***}	.00 ^b
	Residual	33788.84	293	115.32		
	Total	45989.20	294			
Coefficient results						
		Unstandardized Coefficient		Standardized Coefficient		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	23.26	1.37		16.975 ^{***}	0.00
	Employment Creation	0.52	0.051	0.52	10.286 ^{***}	0.00

a Dependent Variable: Poverty Reduction

b Predictors: (Constant), Employment Creation

*** significance <5 % level

Source: Researcher's Computation, 2015.

The adjusted R-squared of 0.263 showed that 26.3% of the variation in poverty reduction could be explained by employment creation while the remaining

73.7% could be explained by other factors not included in the model. The adjusted R^2 was important because it helped to discourage over-fitting of the model (Doane & Seward, 2011).

The analysis of variance (ANOVA) showed the model test of significance, it tested the hypothesis that there is no relationship between employment creation and poverty reduction. Since the ($F=105.795$, $p\text{-value} < 0.01$), this implied that there was a significant relationship between employment creation and poverty reduction and at least the beta coefficient was non-zero.

The regression coefficients were used to show the effect of women entrepreneurs' participation in employment creation on poverty reduction. Result of the study showed that there was a positive and significant effect of women entrepreneurs' employment creation on poverty reduction ($\text{Beta}=0.52$, $t=10.286$, $p\text{-value} < 0.01$). This implied that a unit change in employment creation increased the chances of poverty reduction by 0.52.

The finding of this study agreed with previous studies by Tambunan (2011) where women entrepreneurs created employment in trade and services among other sectors in Indonesia. The finding of study further agreed with Sathiabama (2010) who revealed that women entrepreneurship was the solution of growing unemployment in India. Moreover, a study by Kumar, Mohan, Vijaya and Lokeshwari (2013) reported that in the United States of America women entrepreneurs provided employment to 9.2 million people. Though the women entrepreneurs in Bauchi State had not yet provided employment to such a large number of people, the finding of the study pointed to the fact that women had the

potential of providing employment to millions of people in Bauchi State in particular and Nigeria as a country in general.

4.5.2.2 Test of Hypothesis Two

The second hypothesis sought to establish if there was a relationship or otherwise between women entrepreneurs' income generation and poverty reduction in Bauchi State, Nigeria. The results were as presented in Table 4.14.

Table 4.14: Regression Results for Income Generation and Poverty Reduction

Model summary	R	R ²	Adjusted R ²	Std. Error of the Estimate		
1	.547 ^a	0.299	0.296	10.4903		
ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13745.59	1	13745.59	124.91***	0.00 ^b
	Residual	32243.61	293	110.05		
	Total	45989.20	294			
Coefficient Results						
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	22.93	1.304		17.59***	0.000
	Income Generation	0.75	0.067	0.547	11.18***	0.000

a Dependent Variable: Poverty Reduction

b Predictors: (Constant), Income Generation

*** significance at 1% level

Source: Researcher's Computation, 2015.

The adjusted R squared showed that 29.6% of the change in poverty reduction could be explained by women entrepreneurs' involvement in income generating activities while the remaining percentage could be explained by other factors not included in the model.

The analysis of variance (ANOVA) showed the model test of significance, it tested the hypothesis that there is no relationship between income generation and poverty reduction. Since the ($F=124.907$, $p\text{-value} < 0.01$), this implied that there was a significant relationship between income generation and poverty reduction and at least the beta coefficient was non-zero.

Table 4.14 showed that there was a positive and significant relationship between income generation and poverty reduction ($\text{Beta} = 0.547$, $t=11.176$, $p\text{-value} < 0.01$). This implied that a unit increase in income was associated with 0.547 increases in chances of poverty reduction.

The finding of this study that women entrepreneurs generate income from their entrepreneurial activities and therefore reduce poverty was in agreement with previous studies such as Misango and Ongiti (2013) who reported that in Kenya women generated income from their businesses that helped them to take care of their children school fees, meet basic needs and improved their standards of living. A study carried out in Malaysia also revealed that women generated income from their businesses (Selamat, Razak, Gapor & Sanusi, 2011).

However, this study's finding did not agree with that of Otoo *et. al.*(2010) whose study revealed that women entrepreneurs in Niger and Ghana earned more income than the minimum legal income in their respective countries. The finding of this study on the use of women's income on children education and health of the family members agreed with previous studies such as Misango and Ongiti (2013) and Kabir and Huo (2011) that were done in Kenya and Bangladesh respectively. In the aspect of women entrepreneurs saving part of their income in

Bauchi State, the finding of the study was in agreement with that of Kabir and Huo (2011) who reported that women entrepreneurs saved part of their income in Bangladesh.

4.5.2.3 Test of Hypothesis Three

The third hypothesis sought to find out if there was a relationship or otherwise between women entrepreneurs' food supply and poverty reduction in Bauchi state, Nigeria. The results were as presented in table 4.15.

Table 4.15: Regression Results for Food Supply and Poverty Reduction

Model summary	R	R ²	Adjusted R ²	Std. Error of the Estimate		
1	.506 ^a	0.256	0.254	10.80383		
ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11789.44	1	11789.44	101 ^{***}	0.000 ^b
	Residual	34199.77	293	116.72		
	Total	45989.20	294			
Coefficient Results						
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	23.995	1.332		18.01 ^{***}	0.000
	Food Supply	0.55	0.055	0.506	10.05 ^{***}	0.000

a Dependent Variable: Poverty Reduction

b Predictors: (Constant), Food Supply

*** significance at 1% level

Source: Research Computation, 2015.

Table 4.15 indicated that the adjusted R squared was 0.254 meaning that about 25.4% of the change in poverty reduction could be explained by women entrepreneurs' involvement in food supply activities while the remaining 74.4% could be explained by other factors not included in the model.

The analysis of variance (ANOVA) showed the model test of significance, it tested the hypothesis that there is no relationship between food supply and poverty reduction. Since the ($F=101.004$, $p\text{-value} < 0.01$), this implied that there was a significant relationship between food supply and poverty reduction and at least the beta coefficient was non-zero.

Finally, there was a positive and significant relationship between women entrepreneurs involvement in food supply and poverty reduction ($\text{Beta}=0.506$, $t=10.05$, $p\text{-value} < 0.01$). This implied that a unit change in food supply increased the chances of poverty reduction by 0.506.

In the area of food supply, women entrepreneurs in Bangladesh were found to supply nutritious food to their families according to Kabir and Huo (2011) and Otoo, Fulton, Ibro, and Lowenberg-Deboer (2010) also reported that in Niger and Ghana, women entrepreneurs supplied inexpensive and nutritious food to urban poor people. This was in agreement to the finding of this study where women participated in food supply in Bauchi State and thereby reduced poverty.

4.5.2.4 Test of Hypothesis Four

The fourth hypothesis of the study hypothesized that environmental factors have no moderating effects on women entrepreneurs' participation on poverty reduction. To achieve this hierarchical regression modeling was carried out whereby the first model had only the independent variables while the second model had both independent and moderated variables. In this section, environmental factors were categorized into socio- cultural and economic factors and their moderation effect was tested independently.

4.5.2.4.1 Socio-cultural Factors Moderating Effect and Poverty Reduction

The socio-cultural factors considered in this study included religious and cultural beliefs. The study sought to establish the relationship between socio-cultural factors and poverty reduction in Bauchi State, Nigeria. The result was as presented in Table 4.16.

Table 4.16: Regression Results for Socio-cultural Factors Moderating

Effect										
Model Summary	R	R ²	Adjusted R ²	Std. E. of Estimate	Change Statistics					Durbin Watson
					R ²	F	df 1	df2	Sig.	
1	.549 ^a	0.30	0.29	10.50	0.30	41.86 ^{***}	3	291	0.00	
2	.618 ^b	0.38	0.36	9.95	0.08	9.30 ^{***}	4	287	0.00	1.915
ANOVA										
		Sum of Squares		df	Mean Square	F	Sig.			
1	Regression	13863.08		3	4621.026	41.857 ^{***}	.000 ^b			
	Residual	32126.12		291	110.399					
	Total	45989.2		294						
2	Regression	17547.43		7	2506.776	25.295 ^{***}	.000 ^c			
	Residual	28441.77		287	99.1					
	Total	45989.2		294						
Coefficient results										
		Unstandardized Coefficients		Standardized Coefficients						
		B	Std. Error	Beta	T	Sig.				
1	(Constant)	22.57	1.35		16.68 ^{**}	0.00				
	Employment Creation	0.12	0.04	0.12	2.87 ^{***}	0.00				
	Food Supply	0.15	0.07	0.00	2.05 ^{***}	0.00				
	Income Generation	0.61	0.17	0.44	3.48 ^{***}	0.00				
2	(Constant)	14.85	4.32		3.44 ^{***}	0.00				
	Employment Creation	0.73	0.45	0.72	1.63 [*]	0.10				
	Food Supply	0.27	0.46	0.25	0.59 [*]	0.55				
	Income Generation	1.31	0.59	0.96	2.23 ^{**}	0.03				
	Socio Cultural factors	0.78	0.31	0.28	2.54 ^{***}	0.01				
	Employment creation * Socio Cultural factors	0.06	0.03	1.09	1.88 [*]	0.06				
	Food supply* Socio-Cultural factors	-0.02	0.03	-0.27	-0.50	0.62				
	Income generation* Socio Cultural factors	-0.06	0.04	-0.86	-1.48	0.14				

a Predictors: (Constant), Income Generation, Employment Creation, Food Supply

b Predictors: (Constant), Income Generation, Employment Creation, Food Supply, Socio-Cultural factors, Food supply* Socio Cultural factors, Income generation* Socio Cultural factors, Employment creation * Socio Cultural factors

c Dependent Variable: Poverty Reduction

*** significance at 1% level, ** significance at 5% level and * significance at 10% level

Source: Research data, 2015.

Result in Table 4.16, showed that 29% of the changes in poverty reduction could be explained jointly by income generation, food supply and employment creation. The socio-cultural factors had a significant moderating effect as explained by the significant adjusted R squared change to 36.2% with an F statistics of 9.30 and p-value <0.01.

The analysis of variance results also showed that there was a significant relationship between employment creation, food supply, income generation activities and poverty reduction since the F statistics was 41.857 with a p-value <0.05. This implied that at least one of the slope coefficients was non-zero. The second model showed that there was a significant relationship between employment creation, food supply, income generation, socio cultural factors, employment creation* socio cultural factors, food supply * socio cultural factors, income generation * socio cultural factors and poverty reduction as accounted for by (F=25.295, P value < 0.05). This implied that at least one of the beta coefficients was non-zero. Therefore, the hypothesis that environmental factors (socio-cultural factors) have no moderating effect on poverty reduction was rejected.

Using the unstandardized coefficients in Table 4.17, the regression equations were as stated below:

$$Y = 22.57 + 0.12X_1 + 0.15X_2 + 0.61X_3 \dots\dots\dots(1)$$

$$Y = 14.85 + 0.73X_1 + 0.27X_2 + 1.31X_3 + 0.78Z_1 + 0.06X_1Z_1 - 0.02X_2Z_1 - 0.06X_3Z_1 \dots\dots\dots(2)$$

Equation 2 showed that there was a positive and significant relationship between employment creation and poverty reduction (Beta =0.12, t = 2.87, p-value

<0.01). Similarly, there was a positive and significant relationship between food supply and poverty reduction ($\beta=0.15$, $t = 2.05$, $p\text{-value} < 0.01$). Thirdly, there was a positive and significant relationship between income generation and poverty reduction (Beta =0.61, $t = 3.48$, $p\text{-value} < 0.01$).

The moderated regression model (equation 2) showed that socio-cultural factors had a positive and significant moderating effect on poverty reduction (Beta=0.78, $t = 2.54$, $p\text{-value} < 0.05$). This implied that an increase in involvement in socio-cultural factors led to an increase in poverty reduction among the women entrepreneurs. However, the interaction between socio-cultural factors and employment creation indicated a positive and significant relationship but a negative and statistically insignificant relationship with income generation and food supply.

The finding of this study on the influence of culture on businesses agreed with other studies in other parts of the world. For instance Meek, Pacheco and York (2009) found that in the United States of America, culture influenced every aspect of the business. Bhattacharyya (2012) discovered that in India, adaptation of companies to culture was very important to their success.

4.5.2.4.2 Economic Factors Moderating Effect

The study sought to establish the relationship between economic factors and poverty reduction in Bauchi State, Nigeria. The result was as presented in Table 4.17.

Table 4.17: Regression Results for Economic Factors Moderating Effect

Mod- el sum- mary	R	R ²	Ajust -ed R ²	Std. E. of Estimate	Change Statistics					Durbin Watson
					R ²	F	df 1	df2	Sig.	
1	.549 ^a	0.30	0.29	10.51	0.30	41.86	3	291	0.0	
3	.597 ^b	0.36	0.34	10.15	0.06	6.17	4	287	0.0	1.97
ANOVA										
		Sum of Squares		df	Mean Square		F	Sig.		
1	Regression	13863.08		3	4621.026		41.857 ^{***}	.000 ^b		
	Residual	32126.12		291	110.399					
	Total	45989.2		294						
3	Regression	16406.97		7	2343.853		22.74	.000 ^c		
	Residual	29582.23		287	103.074					
	Total	45989.2		294						
Coefficient results										
		Unstandardized Coefficients			Standardized Coefficients					
		B	Std. Error	Beta	T	Sig.				
1	(Constant)	22.57	1.35		16.68 ^{***}	0.00				
	Employment Crea- tion	0.12	0.04	0.12	2.87 ^{***}	0.00				
	Food Supply	0.15	0.07	0	2.05 ^{***}	0.00				
	Income Generation	0.61	0.17	0.44	3.48 ^{***}	0.00				
3	(Constant)	22.39	5.78		3.88 ^{***}	0.00				
	Employment Crea- tion	-0.73	0.53	-0.72	-1.38	0.17				
	Food Supply	-0.22	0.63	-0.21	-0.35	0.72				
	Income Generation	1.43	0.82	1.04	1.75 [*]	0.08				
	Economic factors	0.09	0.04	0.06	2.48 ^{***}	0.00				
	Employment crea- tion* Economic factors	0.03	0.02	1.16	1.68 [*]	0.09				
	Food supply* Eco- nomic factors	0.01	0.02	0.25	0.35	0.73				
	Income generation* Economic factors	-0.03	0.03	-0.98	-1.26	0.21				

a Dependent Variable: Poverty Reduction

b Predictors: (Constant), Income Generation, Employment Creation, Food Supply

c Predictors: (Constant), Income Generation, Employment Creation, Food Supply, Economic factors,

Food supply* Economic factors, Employment creation* Economic factors, Income genera-
tion*

Economic factors

*** significance at 1% level, ** significance at 5% level and * significance at 10% level

Source: **Research data, 2015.**

Result in Table 4.17, showed that 29% of the changes in poverty reduction could be explained jointly by income generation, food supply and employment crea-
tion. In addition, economic factors had a significant moderating effect as ex-
plained by the significant adjusted R squared change to 34% with an F statis-

tics of 6.17 and p-value <0.01.

The third model (equation 3) showed that there was a significant relationship between employment creation, food supply, income generation, economic factors, employment creation* economic factors, food supply * economic factors, income generation * economic factors and poverty reduction as accounted for by (F=22.74, P value < 0.01). This implied that at least one of the beta coefficients was non-zero. Therefore, the hypothesis that environmental factors (economic factors) have no moderating effect on poverty reduction was rejected.

Using the unstandardized coefficients in Table 4.17, the regression equations were as stated below:

$$Y = 22.57 + 0.12X_1 + 0.15X_2 + 0.61X_3 \dots \dots \dots (1)$$

$$Y = 22.39 - 0.73X_1 - 0.22X_2 + 1.43X_3 + 0.09Z_2 + 0.03X_1Z_2 + 0.01X_2Z_2 - 0.03X_3Z_2 \dots \dots \dots (3)$$

The moderated regression model (equation 3) showed that economic factors had a positive and significant moderating effect on poverty reduction (Beta=0.09, t = 2.48, p value <0.01). This implied that an increase in involvement in economic factors led to an increase in poverty reduction among the women entrepreneurs. Nonetheless, the interaction between economic factors and employment creation indicated a positive and significant relationship, a positive but statistically insignificant relationship with food supply and a negative and statistically insignificant relationship with income generation.

Saleem (2012) reported in a study carried out in Malaysia that the economic factor had a positive and significant effect on the success of small businesses.

However, this study has revealed that the economic factors did not influence businesses carried out by women entrepreneurs.

CHAPTER FIVE

SUMMARY, CONCLUSION AND POLICY RECOMMENDATIONS

5.1 Introduction

The chapter presented the summary, conclusion, the contributions of the study to knowledge and recommendations.

5.2 Summary

Poverty was one of the greatest problems that Nigeria is faced with as a nation; hence, successive administrations had put in place a number of policies and programs in order to tackle this problem. Literature revealed that Nigeria was one of the poorest countries in the world and that Bauchi State was one of the poorest States in the country. As government efforts to reduce poverty did not yield the desired result, literature suggested the involvement of women entrepreneurs to help fight poverty in the country.

Based on this, this study sought to find the role women entrepreneurs in Bauchi State played to reduce poverty in the State in particular and the country in general. The specific objectives were, to establish the effect of women entrepreneurs' employment creation on poverty reduction in Bauchi State, Nigeria; to examine the effect of women entrepreneurs' income generation on poverty reduction in Bauchi State, Nigeria; to find out the effect of women entrepreneurs' food supply on poverty reduction in Bauchi State, Nigeria and to establish the moderating effect of environmental factors on women entrepreneurs' participation and poverty reduction in Bauchi State, Nigeria. Though studies have been conducted

in this area, there was still scarcity of literature especially in the North-East region where culture does not encourage women to participate in economic activities. The studies stated had their focus on samples collected outside Bauchi State. As a result of government and Non-governmental Organisations (NGOs) have made efforts to reduce the high level of poverty in the State, a research was considered necessary in Bauchi State in particular and the country in general to find out the role of women entrepreneurs in poverty reduction.

This study employed a descriptive and explanatory research design. Data was collected using a structured questionnaire. The model specification was tested using normality, linearity and multicollinearity tests. The study tested four hypotheses using multiple regression models. Findings revealed that the relationship between women entrepreneurs' participation and poverty reduction was positive and statistically significant. Therefore, women entrepreneur's performance had a positive effect on poverty reduction.

Employment creation by women entrepreneurs was found to have positive and statistically significant relationship with poverty reduction; therefore, according to this study, they contributed to poverty reduction. Income generation and food supply were also reported to have a positive and statistically significant relationship with poverty reduction; and thus contributed to poverty reduction. Socio-cultural and economic factors were found to have a positive and significant moderating effects on poverty reduction. However, the interaction between socio-cultural factors and employment creation indicated a positive and significant relationship but a negative and statistically insignificant relationship with income generation and food supply. On the other hand, the interaction between

economic factors and employment creation indicated a positive and significant relationship, a positive but statistically insignificant relationship with food supply and a negative and statistically insignificant relationship with income generation.

5.3 Conclusion

Poverty reduction is the aspiration of every government and other stakeholders like Non-Governmental Organisations (NGOs) and Civil Society Organisations (CSOs). In this study, the researcher sought to find out the effect of women entrepreneurs' participation on poverty reduction in Bauchi State, Nigeria. The following conclusions were made based on the study findings.

Most of the women entrepreneurs were in the age bracket of twenty to twenty-nine years therefore, they had not yet acquired sufficient experience to expand their businesses. However, by reason of their ages, the women had the potential to acquire experience that would help them to expand their businesses and thereby employ more workers. Again most of the women were married therefore, the marital status was perceived to have contributed to entrepreneurship so that the women could maintain their families.

Furthermore, most of the women entrepreneurs were educated. As such, they had mental capacities to expand their businesses. Therefore, it can be concluded that employment creation by women apart from been found to be significant in relation to poverty reduction, also has a great potential in the future based on the age, marital status and educational qualifications of the women entrepreneurs to be significant in poverty reduction.

Income generation was also discovered to be significant, thus the study concluded that income generation by women has helped to reduce poverty in Bauchi State. In addition, because most of the women were married, they would manage their incomes with care so they could take care of their families and at the same time expand their businesses. Again, due to the fact that most of the women were educated, they could approach financial institutions in order to obtain loans that could help them to expand their businesses and in turn generate more income.

Furthermore, food supply was found to be significant; this implied that food supply by women entrepreneurs has contributed to poverty reduction in Bauchi State of Nigeria. Moreover, due to the fact that most of the women were married and most had children, they would put in their best in order to supply food to their families. In addition, because most women entrepreneurs were Christians, culture did not negatively affect them. Therefore, socio-cultural factors were found to have positive and significant effect on poverty reduction.

Finally, because women entrepreneurs were provided with capita by Development Exchange Centre to start their businesses, and they could even be given additional funds from same organization to also expand their businesses. Therefore, it can be concluded that the economic factors also had positive and significant effect on poverty reduction.

Though, the effect of poverty reduction by women entrepreneurs is yet to be felt by the general society the findings of this study have given insight into the fact that women entrepreneurs had the potential given their ages, family backgrounds,

and educational qualifications of reducing poverty in Bauchi State in particular and Nigeria in general.

5.4 Contributions of the study to knowledge

The research sought to establish the individual and combined effect of women participation in entrepreneurial activities (employment creation, income generation, and food supply) on poverty reduction in Bauchi State of Nigeria. Previous studies in other countries such as the United States of America, India, Bangladesh, Indonesia and Ghana to mention but a few as well as some other States in Nigeria have established that there was a significant relationship between women entrepreneurs' participation and poverty reduction.

However, in Bauchi State, no study has been known to have been carried out on the role of women entrepreneurs in poverty reduction possibly due to cultural beliefs in the region. Therefore, this research has contributed to empirical literature by validation of previous studies findings that women entrepreneurs could contribute to poverty reduction through employment creation, income generation and food supply despite the cultural beliefs in the region generally and Bauchi State in particular.

In addition, the findings of this study has provided an insight to the stakeholders on the ability of women to contribute to poverty reduction in Bauchi State like other States in Nigeria as well as in many African countries and other parts of the world. The study further contributed to theory as it identified the possibility of women entrepreneurs in the northern region to change their poor status in society through entrepreneurship.

This is because in Bauchi State where due to cultural beliefs women were not considered to contribute to the economic status of their families nor that of society, they were found to create employment, generate income and supply food to their families through their entrepreneurial activities resulting to poverty reduction.

5.5 Policy Recommendations

Based on the findings of this study, a number of policy implications could be drawn in order to help the government and Development Exchange Centre (DEC) to reduce more poverty in Bauchi State in particular and Nigeria in general. Government at all levels as well as Civil Society Organisations (CSOs) and religious leaders should come together and take advantage of the great potentials of women entrepreneurs in order to reduce more poverty in the State. This is because most of the women entrepreneurs were educated therefore they could more easily be trained to expand their businesses and so employ more people. This is because most of them had the potential to grow their businesses for a long time since they were young and therefore employ more people thereby reduce more poverty.

In addition, since most of the women entrepreneurs were married and had children, this means they would take the issue of income generation seriously, therefore the State government should encourage women participation in poverty reduction by setting aside special funds to empower women entrepreneurs to grow their businesses. This would help women to generate more income. Furthermore, the contribution of women entrepreneurs to poverty reduction in terms of income

generation should be factored into the income estimates of Bauchi State by the relevant government agencies in the Local Government Areas and the State government. This would go a long way to reduce the poverty rate/index of the State in particular and the country at large.

Again, because most women had children and they were also married, they would take the issue of food supply seriously. Therefore, information about better ways of supplying food be provided to them by the stakeholders so that they could supply more food in the State. Presently, most women entrepreneurs were Christians, therefore, the Muslim religious leaders should encourage more Muslim women to be involved in entrepreneurship so that poverty would reduce poverty among Muslim families also.

Lastly, the government should encourage financial institutions to provide loans to women entrepreneurs at low interest rates so that they could do more in economic activities thereby reducing more poverty. This is because most of the women were educated, therefore, by creating a more conducive economic environment by the stakeholders they could do much more in their business activities and as a result reduce more poverty.

5.6 Recommendations for Further Research

The researcher recommended that further research be carried out on how the micro enterprises run by women entrepreneurs can be transformed into medium and large scale businesses. Furthermore, the findings of this study could be validated by a study in other States in the North-East region of Nigeria where Bauchi State is located. In addition, research could be directed in other ways of fund-

ing women entrepreneurs apart from the Non-Governmental Organisation (NGO), Development Exchange Centre (DEC). Lastly, research could be conducted on the role of youth in poverty reduction.

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APPENDIX I



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Tel. 8710901 Ext. 57530

Our Ref: D86F/CTY/24656/2011

DATE: 16th April 2015

Development Exchange Centre,
Bauchi State,
NIGERIA

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION SIMEON AHEMBA ASEN- REG. NO. D86F/CTY/24656/2011

I write to introduce Mr. Simeon Ahemba Asen who is a Postgraduate Student of this University. He is registered for Ph.D degree programme in the **Department of Business Administration**.

Mr. Ahemba intends to conduct research for a Ph.D Proposal entitled, **"Women Entrepreneurs Participation and Poverty Reduction in Bauchi State, Nigeria"**.

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. ELISHIBA KIMANI
ASSOCIATE DEAN, GRADUATE SCHOOL

EK/m

APPENDIX II: DATA COLLECTION INSTRUMENTS

(I) Cover Letter

Simeon A. Asen; B. Sc., MBA

Department of Business Administration

School of Business, Kenyatta University

P.O. Box 43844-00100

Nairobi-Kenya

Email:asensimeon@yahoo.com

Dear respondents,

I am currently conducting a study on, “Women Participation in Entrepreneurship Activities and Poverty Reduction in Bauchi State, Nigeria”. This information shall be useful concerning the future policy on women entrepreneurs and poverty reduction in the country.

Participating in this survey is voluntary. This survey shall take you less than 30 minutes to complete. Feel free to complete the questionnaire and give additional information on the instrument where necessary. All the information will be treated confidentially and for the purpose of this study only.

Your time in completing this survey shall be greatly appreciated.

Yours faithfully,

Asen, S.A (Admission (No. D86F/CTY/24656/2011)).

APPENDIX III: QUESTIONNAIRE

Instructions: The purpose of this questionnaire is to collect data on, “Women participation in entrepreneurship activities and poverty reduction in Bauchi State, Nigeria.” The questionnaire is made up of four sections. Please respond to all the statements in every section by ticking () the option(s) that best express your view.

RESPONDENTS' CHARACTERISTICS

1. Educational qualification(s)

- i) Graduate
- ii) Diploma
- iii) Secondary school
- iv) Primary school
- v) Non-formal education (Quaranic education)
- vi) No education

2. Religion

- i. Christianity
- ii. Islam
- iii. Traditional religion

3. Marital status

- i. Married
- ii. Single
- iii. Divorced
- iv. Widowed

4. Age

- i. 20-29 years

ii. 30-39 years

iii. 40-49 years

iv. 50-59 year

v. 60 and above

5. How many children do you have

i. 1- 4 children

ii. 5-8 children

iii. 9-12 children

iv. No child

6. How long have you been in business?

i. Less than 1 year

ii. 1- 5 years

iii. 6 - 10 years

iv. 11 – 15 years

Instructions

Indicate the extent to which you have personally participated in each of the following activities to create employment and food.

Please use this scale as appropriate in providing information needed in each subsection.

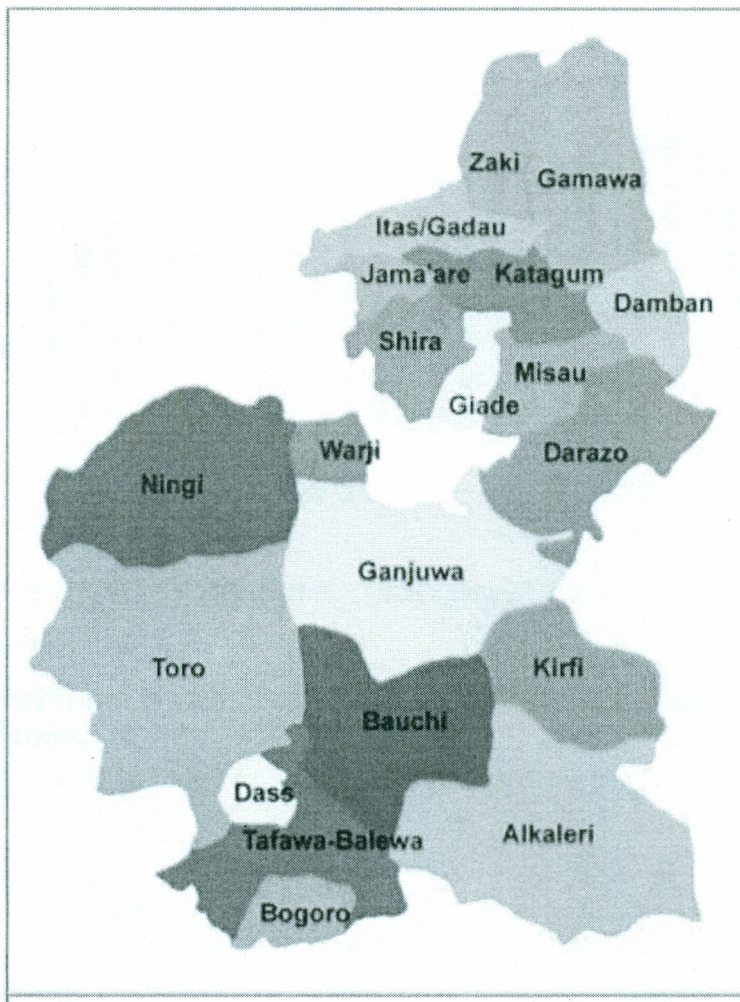
Scale	Variables		
	Employment Creation, Food Supply and Poverty Reduction	Income Genera- tion	Socio-cultural and Economic Factors
1	To no extent	0- 33	Not at all
2	To very slight extent	33- 67	Strongly disagree
3	To slight extent	67-100	Disagree
4	To a large extent	101-133	Agree
5	To a very extent	133 and above	Strongly agree

EMPLOYMENT CREATION	1	2	3	4	5
7. Buying and selling of Household items					
8. Buying and selling of animals					
Services					
9. Tailoring					
10. Saloon					
11. Restaurant					
12. Provision of Human Labor					
Agricultural Activities					
13. Poultry					
14. Cattle rearing					
15. Fishery					
16. Food crops					
17. Vegetables					
Food supply					
18. Grains production					
19. Bread production					
20. Selling of food produced					
21. fish farming					
22. goat rearing					
23. sheep rearing					
24. poultry					
25. eggs production					
26. tomatoes farming					
INCOME GENERATION					
27. Sale of grains from your farm					
28. Bakery					
29. Paultry					
30. Tailoring					
31. Hair dressing saloon					
32. Cattle rearing					
33. Restaurant					
34. Sale of vegetables					
35. Buying and selling of other household items					
Usage of income					
36. Expenses on children education					
37. Expenses on health					
38. Expenses on food					
Savings					
39. Amount of money saved in a week					
40. Amount saved since the inception of the business					
41. Money ploughed back into the business					
42. Amount spent on acquisition of assets					
POVERTY REDUCTION					
43. The number of meals you/or your family take in a day					
44. The quality of meals you/or your family take on					

daily basis						
45. Clothing of family members						
46. Access to education by my children						
47. Access to health care by my family members						
48. Access to portable drinking water						
49. The quality of my home						
50. The sanitary condition of my home						
51. Participation in the decision making of my family						
52. The role(s) I play in my community						
53. My security and that of my family members						
54. Ownership of a landed property						
55. Acquisition of family assets						
SOCIO-CULTURAL FACTORS						
56. I enjoy positive attitude of customers in my business						
57. Religious beliefs have positive effect on my business						
58. The size of my family have a negative effect on my business						
59. The Culture in my community have positive effect on my business						
ECONOMIC FACTORS						
60. The cost of labor in my community is high						
61. Entrepreneurs have easy access to capital						
62. The cost of raw materials is high						
63. I enjoy high customer patronage						
64. Cost of transportation is low in my environment						
65. Raw materials are readily available in abundance						
66. The cost of power (electricity) is very low						
67. Inflation adversely affects my business transactions						
68. Stable availability of electricity						

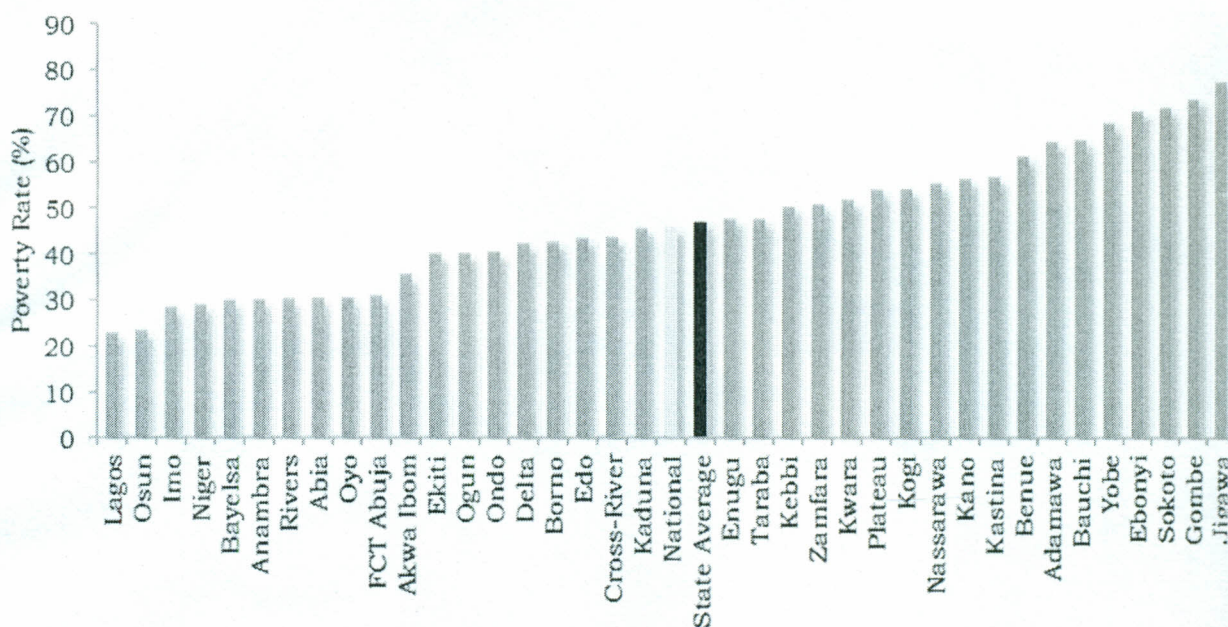
APPENDIX IV: MAP OF LGA'S IN BAUCHI STATE

Map Showing LGAs in Bauchi State



Source: National Population Commission (2010)

APPENDIX V: POVERTY RATE PER STATE IN NIGERIA.



Sources: NBS, World Bank, NESG Research

Adopted from: Nweke, F. (2013). The Role of the Private sector in Poverty Alleviation.