WOMEN PERCEPTIONS OF INVOLVEMENT IN AGICULTURE AND THE INFLUENCE ON LEVEL OF LIVING IN KADUNA STATE AND FEDERAL CAPITAL TERRITORY, NIGERIA

BY

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DECLARATION

l declare that this dissertation titled: "INFLUENCE OF WOMEN INVOLVED IN AGRICULTURE ON THEIR STANDARD OF LIVING IN KADUNA STATE AND THE FEDERAL CAPITAL TERRITORY,ABUJA" was carried out by me in the Department of Vocational and Technical Education under the supervision of Dr M.O. Ayorinde and Dr B.I. Okeh. The information obtained from literature is acknowledged in the text and a list of references provided. I also declare that no part of this work has been presented for another degree or diploma at any institution of higher learning.

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CERTIFICATION

This dissertation titled "INFLUENCE OF WOMEN INVOLVEMENT IN AGRICULTURE ON THEIR STANDARD OF LIVING IN KADUNA STATE AND FEDERAL CAPITAL TERRITORY, ABUJA" meets the requirement and regulations governing the award of Masters of Science degree in Agricultural Education, Ahmadu Bello University, and Zaria and is approved for its contributions to knowledge and literary presentation.

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DEDICATION

This research work is dedicated to my Parents Chief Adedokun Isaac and Chief (Mrs) Rachel Olabisi Babalola and to my wife and my lovely children.

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The researcher would like to acknowledge the enormous contribution and guidance from my supervisors including Dr. M.O. Ayorinde, Dr. B.I. Okeh that led to the completion of this research work.

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ABSTRACT

This study was carried out to determine the women perception of involvement in agriculture and the influence on level of living in Kaduna state and the Federal Capital Territory. Four (4) research questions and four (4) null hypotheses were formulated as a guide. Descriptive survey design was adopted for the study. The population of the study consisted of 7,685 women farmers Kaduna state and the FCT Abuja. A sample of 500 women farmers was selected randomly. A structured questionnaire was the instrument used for data collection, with the help of agricultural extensions officers at the agricultural zones. Data was analyzed using descriptive statistics (mean score) t-test analysis. T-test analysis showed that calculated t-values on the influence o women's involvement in agriculture in both Kaduna State and FCT on their level of income (0.98), health status (1.10), nutritional status (1.11) and food security (1.12) were all less than t-critical (1.96) therefore all four null hypotheses were retained. It is concluded that women involvement in agriculture increases their income level, improves their health status, enhances their nutritional status and helps to ensure their food security in both Kaduna State and the Federal Capital Territory.

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LIST OF ABBREVIATION

Abbreviation	Meaning
ADP	Agricultural Development Projects
APEC	Asia Pacific Economic Commission
FAO	Food and Agricultural Organization
NAPEP	National Poverty Alleviation Programme
NEEDS	National Economic Empowerment Development Strategies
IFAD	International Food and Agricultural Development
UNIFEM	United Nations Development Fund or Women
CARE	Committee for Access, Reintegration Empowerment for Women

OPERATIONAL DEFINITION OF TERMS

PERCEPTION: That which is detected within consciousness as a thought, intuition, deduction.

INFLUENCE: Power to affect, control or manipulate something or someone; it is the ability to change something.

INVOLVEMENT: The acts of involving, or the state of being involved; to connect with something as a natural or logical consequences or effect; to include necessarily, to imply.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

The international community has recognized that agriculture is an engine of growth and poverty reduction in countries where it is the main occupation of the poor. But the agricultural sector in many developing countries is underperforming, because women, who represent a crucial resource in agriculture and the rural economy through their roles as farmers, labourers and entrepreneurs face more severe constraints than men in accessing productive resources (Dandiane and Delgado, 2010). Efforts by National Governments and the International community to achieve agricultural development, economic growth and food security will be strengthened and accelerated if they build on the contributions that women make and take steps to alleviate these constraints (Dandiane and Delgado, 2010).

Daman (2011) opined that women make essential contributions to agricultural and rural economies in all developing countries. He further adds that their roles vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. Women farmers in Kaduna and Federal Capital Territory often manage complex households and pursue multiple livelihood strategies (Devereux 1993). Their activities typically include producing agricultural crops, tending animals, processing and preparing food, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes (Devereux 1993).

They constitute more than half of any nation's human resources and contribute significantly to agricultural production (Rahman, 2011). The rural economy in Kaduna and Federal Capital Territory is dominated by women through their participation in crop and animal production, marketing as well as processing (Adeyokun 2010). Women farmers in the study area are the mainstay of small scale agriculture as they supply the farm labour and are responsible for family sustenance. Mulate (2010) finds out that reducing the gap between male and female farmers in access to productive resources, assets and inputs could raise yields on farms operated by women by 20-30 percent, which would generate significant gains in agricultural production at national levels and could reduce the number of undernourished people in the world by 12-17 percent.

Women farmers in Kaduna and Federal Capital Territory who own land are better able to provide more nutritious food to their children and ensure their health and wellbeing, (Aisha, 2010). To better enable female agricultural producers to reach their full potential, and in addition prepare for the future will help promotes women's leadership in agriculture; fosters policy changes that increase women's land ownership and strengthens their access to financial services; encourages female farmers to adopt new agricultural technology aimed at increasing productivity and reducing unpaid work; and invests in improved nutrition outcomes (Devereux, 1993).

Agricultural growth and increased income among women are two areas of economic development that have demonstrated exceptionally high impacts of standard of living. For this reason, policies and programs that seek to raise productivity and income of women farmers have the potential to bring about a convergence of especially potent anti-poverty forces in low income agriculture-based economies, (Ajani, 2012). In developing countries like Nigeria using

agriculture as the basis for economic growth requires a "productivity revolution in smallholder farming.

Women's role is also very crucial to the overall success of efforts directed towards rural development for increased agricultural productivity. They are more involved in agricultural activities than men especially in sub-Saharan Africa and provide most labour for a number of agricultural activities. They constitute about 90 percent of the workforce involved in direct arable crop production (Aisha, 2010). The role of women in agricultural and rural development can therefore not be over-emphasized when considering rural and national development of Nigeria.

Over the years, Nigeria has been involved in several agricultural programmes which Include Operation Feed the Nation, Green Revolution, River basin development authority, Back–to-land programme . Most of these programmes have not had a lasting impact and therefore became moribund because of the lack of prominence not given to the women farmers who remain the major food producers .The recognition of the dominant role of Nigerian women in farm production, led to the need to modify extension system to address the peculiar problems faced by women farmers. This was initiated by the federal government of Nigeria after a series of World Bank study missions to a number of loan-assisted projects in various parts of Nigeria. These studies (Aisha, 2010) confirmed the high contribution of women (60% of farmers) while they received little or no information from the extension agents. Mijindadi (2014) states that government recognition of women involvement in agriculture and food production led to the establishment of Women in Agriculture (WIA) unit in April 1989 which was created from the existing ADPs in order to extend extension services to women farmers. The activities of the WIA as a component within the extension department had focused on rendering of agricultural

extension services through female extension staff to female farmers as individuals and groups in areas of crops and livestock production, handling and marketing techniques, processing, storage, utilization and therefore enhancing their standard of living.

1.2 Statement of the Problem

Women are the backbone of the development of rural and national economies. They comprise 43% of the world's agricultural labor force, which rises to 70% in some countries (Akor, 2011). In Kaduna and F.C.T, 80% of the agricultural production comes from small farmers, who are mostly rural women. Women comprise the largest percentage of the workforce in the agricultural sector, despite the important roles they play in agricultural economies, women in Kaduna and F.C. T still suffer from inadequate health care, inability to pay for the education of their children and acquisition of other products and goods which are necessary on a day-to-day basis, limited financial capacity caused by an inefficient supply chain and poor conservation of their surpluses, restricted access to land and extension services, farm inputs, credit facilities, illiteracy and cultural factors such as purdah restriction in northern Nigeria. For the fact that these women are gotten little or nothing from their production does not discourage them from embarking in agricultural production. When women's agricultural production increase and income increases, the benefit amplifies across families and generations women tend to devote a large fraction of their income to their children help and nutrition laying the foundation for their children's cognitive and physical development (FAO, 2010). It is in this view that the researcher intends to compare women's perception of involvement in agriculture and the influence on level of living in Kaduna State and Federal Capital Territory, Nigeria.

1.3 Objective of the Study

The main objective of the study was to determine women's perceptions of involvement in agriculture and the influence on level of living in Kaduna state and the Federal Capital Territory, Abuja.

Specific objectives of the study are to:

1. Compare the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their income level.
2. Compare the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their health status.
3. Compare the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their nutritional status.
4. Compare the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their food security.

1.4 Research Questions

The following research questions were raised to guide the study:

1. What is the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their income level?
2. What is the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their health status?
3. What is the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their nutritional status?
4 What is the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their food security?

1.5 Research Hypotheses

The following null hypotheses were formulated to guide the study:

1. There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory Abuja on the influence of women's involvement in agriculture on their income level.
2. There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of women's involvement in agriculture on their health status
3. There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of women's involvement in agriculture on their nutritional status
4 There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of women's involvement in agriculture on their food security

1.6 Significance of the Study

The result of this research would be useful to the Ministries of Agriculture in the Kaduna state and the Federal Capital Territory, Agricultural Development Projects (ADPs), Women in Agriculture and the National Poverty Eradication Programme (NAPEP). Ministries of Agriculture would understand how to better help women farmers achieve greater productivity .Agricultural Development Programme (ADPs): Would benefit the women farmers through adequate supply of inputs and services. Women in Agriculture (WIA) would benefit through effective female extension services and women farmers involved in the National Poverty Eradication Program

(NAPEP) would benefit through better ways to reduce poverty among women farmers. Finally, the findings of this study are bound to stimulate more research interest in this area of influence of women's involvement in agriculture on their standard of living.

1.7 Basic Assumptions of the Study

The following assumptions were made to guide the study:

1. Women involvement in agriculture enhances their socio-economic benefit.
2. Provision of incentives to women farmers increases their rate of involvement in agriculture.
3. The constraints faced by women in agriculture are as a result of inadequate agricultural inputs from government.

1.8 Delimitation of the Study

The study was delimited to Kaduna state and the Federal Capital Territory. It is also delimited to those women involved in agricultural production in Kaduna state and the Federal Capital Territory. The reason for delimiting to women farmers is because they constitute the target population which will be used for this study.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

2.1 Theoretical Framework

2.2 The Concept of Perception

2.3 The Concept of Involvement

2.4 The Concept of Level of Living

2.5 Men and Women's Roles in Agricultural Production

2.6 Women and Food Production

2.7 Constraint to Women's Role in Agriculture

2.8 Empirical Studies

2.9 Summary

2.1 Theoretical framework

The theoretical framework of this research is based on a global theory of social change Committee for Access, Reintegration and Empowerment of Women (CARE) that addresses the underlying causes of poverty and women's exclusion in agriculture as founded and formulated by Austin Francis (2003).

The Pathways Theory of social Change was developed through a broad review of CARE's past programming and years of in-depth analysis in each country of implementation. Accordingly, Pathways 'looks' different in each area in which it operates. CARE has built a robust learning agenda around the theory of change and will be testing its validity over the life of the initiative.

Strategy

While the Pathways theory change defines *what* needs to happen to achieve our goal, CARE's Pathways strategy outlines *how* these changes will be promoted. The program applies a push / pulls strategy, pairing efforts to build the capacity, skills and knowledge of poor women farmers with efforts to realign or enhance public, private, civil society and community resources and behaviors. Combined, these efforts aim to improve the productivity of women farmers and women's equitable participation in sustainable agricultural systems. Specific intervention areas within this model include:

a. Promoting Access to and Influence over the Means of Production

Women's lack of access to land, water and farm implements will be addressed across all CARE's Pathways initiatives. Increasing equitable access to the means of production is vital to 'leveling the playing field,' for women farmers. (Ajani, 2012).

b. Promoting the Sustainable Intensification of Agriculture

Pathways build on CARE's experience in sustainable agriculture and climate change adaption and documented declines in agricultural productivity in Africa and India. The Pathways productivity model focuses on improving long-term agricultural productivity and enhancing land quality. (Ajarwai, 2011).

c. Facilitating Improved Market Access and Income Generation

Pathways apply a value chain approach to identifying promising market opportunities for poor women farmers and systemic constraints to more inclusive agricultural markets. Interventions focus on enabling households to diversify their incomes and more effectively participate in and benefit from growing markets. (Carval, 2012).

d. Supporting Innovation and Technology Development

Increasing access to resources and knowledge and improving agricultural practices will only go so far. For women and other farmers across Africa and Asia to reach their potential, new technologies need to be developed or taken to scale – some of which have not even been developed yet. Through Pathways, CARE will continually test innovations in agricultural productivity, financial inclusion, women's empowerment, nutrition and market access. (Cohen, 2012).

e. Strengthening Agricultural Input Systems and Services

CARE has expertise in building 'last mile' linkages with rural communities and women smallholder farmers. Pathways will put this knowledge to work in order to expand equitable access to inputs and agricultural services – and ensuring women farmers in particular are better served with high-quality, affordable, appropriate, and accessible services. (Cooke, 2010).

f. Engaging Men, Boys and Elites

All too often, agricultural interventions targeting women's empowerment focus narrowly on working with and for women. CARE's experience has shown that without engaging men, boys and power holders, these efforts fall far short of transformative change. Pathways strives to do better by integrating specific efforts to engage both women and men, boys and girls, the powerful and the excluded and working across genders to drive results. This theory is related to my work the area of empowerment and productivity. Therefore if women are positively empowered their productivity will increase thereby raising their standard of living (Dick, 2013).

According to Charles Francis (2009), despite the wide possible directions change may take, various generalizations have been set forth. Because, the lot of mankind generally has improved over the long term, by far the most numerous classes of theories of the direction of

change comprise various cumulative or evolutionary trends. Charles Francis (2009) stated that, society and culture were subject to the same general laws of biological and organism growth. Charles Francis (2009) showed that, species of organisms have evolved from simpler organisms to the more complicated organisms through the processes of variations and natural selections. Herbert Spencer (2010) further took the position that, sociology is the study of evolution in its complex form. For him, evolution is a process of differentiation and integration.

The basic assumptions of this theory are that, change is the characteristic feature of human society. The present observed condition of the society is presumed to be the result of the past. Another assumption is that, the change is inevitable or it is natural. It was assumed that, the change is basically the result of operation of forces within the society or culture. This theory was found relevant to this work as it indicate the relationship between the past actions (women involvement in agriculture) and the present conditions (change in income level, change in health status, change in food security etc).

2.2 The Concept of Perception

Perception is the organization, identification, and interpretation of sensory information in order to represent and understand the environment. All involves signals in the nervous system which in turn result from physical or chemical stimulation of the sense organs. For example, vision involves light striking the retina of the eye, smell is mediated by molecules, and hearing involves pressure waves. Perception is not the passive receipt of these signals but is shaped by, learning, memory, expectation, and attention. Perception can be split into two processes; Firstly, processing sensory inputs, which transform these low-level information into high-level information (e.g., extract shapes for object recognition). Secondly, processing which is connected with a person's concepts and expectations (knowledge) and selective mechanisms,

attention that influences perception. Perception depends on complex functions of the nervous system, but subjectively seems mostly effortless because this processing happens outside conscious awareness.

Psychologist Jerome Bruner (2010) has developed a model of perception. According to him, people go through the following to form opinions:

1. When we encounter an unfamiliar target we are open to different informational cues and want to learn more about target.
2. In the second step we try to collect more information about the target. Gradually we encounter some more familiar cues which help us categorize the target.
3. At this stage, the cues become less open and selective. We try to search for more cues that confirm the categorization of the target. We also actively ignore and even distort cues that violate our initial perceptions. Our perception becomes more selective and we finally paint a consistent picture of the target.

2.3 The Concept of Involvement

There are many interpretations of involvement with regard to rural development, involvement, include peoples participation in the decision making process, in implementing programmes, their sharing in the benefits of development programmes and their participation in efforts to evaluate such programmes (Cohen, 2012). Furthermore involvement is broadly seen as contribution, organization and as empowering of participants through collective activity, (Abe 2013). Bowen (2014) defined community involvement, as the active participation of the local community residents and particularly persons identified as vulnerable such as women. According to (Jupp, 2010), the Nigeria Social Insurance Trust Fund (NSITF) has put a strong emphasis on adopting involvement approaches in all youth/old, men/ women, poor/less poor and those

traditionally unseen and unheard to be actively involved in the NSITF- funded development project. The involvement is very important in small scale traditional agriculture, where the farming system is based on family labour (Olayiwole, 2014). Peter (2012) indicated that the one single idea that has emerged from the major reappraisal of development is the need for a greater involvement of rural people in development processes. This involvement will not only change the nature and direction of development interventions but will lead to a type of development which is more respectful of poor people's position and interests. In many ways it could be argued that involvement has become an umbrella term for a supposedly new style of development intervention.

2.4 The Concept of Level of Living

The definition of level of living is how well or how poorly a person or group of people lives in terms of having their needs and wants met. An example of a high level of living is a wealthy person who can buy anything he wants. However an example of a low level of living is a poor person who does not have enough food or water to drink. In addition, the level of living is a measurement of how well off a group of people or an individual perceives themselves to be. Level of living takes into account the quality of housing, medical care, education, transportation and entertainment opportunities. There is no objective single measure of level of living rather, it is a value judgment made by individuals. However to inject degree of objectively sometimes annual per capital income figures are used to compare different level of living. (Zeller, 2011).

Level of living in the rural setting according to Philips (2013) is a multi-faceted phenomena determined by the cumulative and interactive impacts of numerous and various factors like income, quality of life, social amenities, health status, nutrition and satisfaction in the physical and social environment. The fundamental concepts of standard of living according to

Adejumobi (2011) are values that play an important role in the experience of qualitative life, such as the needs, aspirations, and goals which are important to the individual. This satisfaction derived from the various life domains directly contribute to the standard of living. These are in form of housing, nutrition, income, health status, education, social status, and neighborhood/community. (Dick, 2013).

The concern to increase the standard of living among women farmers in Nigeria can be seen in the general concern to alleviate the socio-economic status of women. Many programs sponsored either the National governments or international agencies are designed to improve the standard of living of women farmers. Worthy to mention is the Women in Agriculture Programme, which is planned to play a critical role in improving the status of women in the society both economically, physically and materially. (Samuel, 2006).

2.5 Men and Women Role in Agricultural Production

In Kaduna state and the Federal Capital Territory crops are cultivated in two kinds of farm: there is the bush farm and the backyard farm (Ayuba, 2010). According to him, the bush farm is of greater importance to the Gbagyi people of these areas. In this traditional Gbagyi peasant agriculture, there is some division of labour which varies with combination of cropping, livestock rising and home industry. According to Ayuba (2010), women plant/sow, weed harvest, transport and thresh crops. This claim is collaborated by Ivande (2010) who noted that in virtually all societies, distinction is made between male and females. Ivande further stated that this distinction is not peculiar to human world alone, it exist even among non-humans, this give rise to the term gender, reasons for gender roles differentiation agricultural production the world over (Kaduna state and the Federal Capital Territory inclusive). For the men, as the symbol of strength and protection – deforestation (land clearing), ploughing, construction of farm house

and heaps/ridges, heavy transportation and planting of tree crops is carried out by men. For the women, as the symbol of fecundity and weakness – sowing and planting, weeding, light tilling, upkeep of crops and livestock, harvesting, managing store houses, crop processing, preparing means and small scale sale of agricultural surplus, (Sada, 2012). Akello (2011); FAO, (2010); Saito, (2014); Madaki, (2012) appears to have a common consensus that women in many third world countries are involved in cultivating, distributing, processing and marketing agricultural produce.

In their own contribution, Ajani, Adeoti and Adenegan (2012) noted that a large proportion of women work on farm for crops – yam, maize, tobacco and cassava and carry out mental activities of decision making. They argue that women contribute as producers, distributors, processors, and marketers. According to them some women are farmers in their own right while many help on their husband's farms, doing the lighter jobs of planting, fertilizer application and harvesting. It is reported that the majority of the world's food producers are women; they provide 60-80 percent of the agricultural labour in Africa and Asia and 40 percent in Latin America (People's food sovereignty Magazine, 2011). The tasks involved in agricultural production activities undertaken by the women farmers are not different from the aforementioned. Sada (2012) noted that planting and sowing, supplying, fertilizer application, weeding, harvesting and gathering, threshing and storage, transporting, processing into forms and marketing is carried out by women.

Like any other parts of Nigeria, the Kaduna and the Federal Capital Territory men and women have major agricultural production roles which are sharply differentiated as observed by (Ayuba, 2010, Ichaba (2012);). They observed that land clearing, land preparation in fadama,

preparation of heaps and ridges recognized by all farmers as the most important task in farming is the exclusive task of the men and this task is regarded as the most tedious in farming.

They pointed out that preparing yam sets for planting which includes sorting yam sets by varieties and placing them on heaps for planting is done by men. Women, they noted are responsible for transporting the yam to the farm while the men do the actual planting and mulching. Weeding is the responsibility of both men and women with the women dominating this aspect of cultural practice - Sada, (2011); Yaro, (2012); Ayuba, (2010). Although women are responsible for most farming operations, including harvesting of crops, men are observed to assist in harvesting and drying of crops, threshing of rice, pests and disease control and preparation of storage facilities. Although there are very few available literature and scanty history on farming in Gbagyi land which are related to this study, the review revealed that, depending upon the cropping enterprise there is a perfect division of tasks from pre-planting to post harvest operations in Kaduna state and the Federal Capital Territory, thus buttressing the researchers' choice of women as subject for the study.

2.6 Women and Food Production

Kwaghe (2011) reported that women form the highest proportion of the economically active population in rural Nigeria and play an important role in agricultural activities, particularly in subsistence food production, where they contribute an estimated 60-80 percent of the total labor used. These women contribute significantly to both the economic growth and national development (Ajani 2012). The majority of the women are not in agriculture by choice, but they grow into it, as it is the dominant occupation in the areas in which they live. Therefore, their work as mothers, wives and citizens has always been combined with the essential economic role

of food producers. In addition, they fully engage in a wide range of other off-farm and household activities (African Event 2011).

In Nigeria, women play a major role in the production of food crops and also undertake activities such as trade to earn cash income. Female farmers are associated with traditional subsistence and low-yield food crops, due to their lack of influence and their inability to access agricultural innovations (Ani, 2010). There may be differences in agreement as to the extent of the involvement of women in agricultural production, but there is a consensus that women are important participants in all sub sectors of agriculture, namely crops, livestock, fisheries and agro-forestry.

Religious, cultural and social norms constrain women's rights and activities while reproduction and household responsibilities impinge on their time and mobility. The range of agricultural activities and crops cultivated by women is dictated by norms rather than their capabilities. Hence, variations exist among different social groups in women's role in agriculture (Ezumah . 2013).

In Nigeria, research studies have shown that women play major roles in key farming operations such as planting, weeding and harvesting. Some areas have certain crops designated "female" crops. Due to the fact that gender relationships are socially determined, there is great diversity from one area of Nigeria to another. There are three major ethnic groups in Nigeria. These are the Yoruba in the southwest, the Ibo in the southeast and the traditionally Muslim Hausa-Fulani in the north. On the surface, women's activities seem different among the three major ethnic divisions. However, the traditional farming systems among the three groups are similar in that there is a division of labor between men and women, especially among the Ibos and the Yorubas. Traditionally, Yoruba farmers rely predominantly on male labor while Ibo

farmers depend heavily on female labor. Furthermore, Ibo women tend to be farmers first and then traders while Yoruba women are inversely traders first and then farmers.

In southeastern Nigeria, yam is the traditional prestige crop for men while cassava and other ephemeral crops like melon and cocoyam are crops for women. In the north, religion plays a large role in the division of labor. Among Muslim Hausa-Fulani's, seclusion norms dictate that women are less involved in outside-the-compound farming tasks (other than harvesting of certain crops by widows or women who have reached menopause). However, non-Muslim women are involved in every stage of agricultural production. In parts of southwestern Nigeria, women combine petty trading with food and cash cropping. In the middle belt states, women own and manage farms without restriction as to the crops they cultivate. However women generally carry out most farming operations on family farms, owned and controlled by male heads of the family and their own farms are allocated by the husband. In eastern Nigeria, women farmers participate actively in the production of yams, maize and other cereals.

Generally, rural women are actively involved in post-harvest processing as well as in raising poultry and small animals (sheep and goat), even when in purdah. They do this as a way to store wealth, which serves as a "living savings account" (Blumberg 2012). Comparative measurements of productivity by gender have not received considerable research, though in female-dominated food crops, female farmers are as productive as their male counterparts (Adesina .2013).

Awotide (2014) revealed in their study on relative efficiency of women rice farmers in Ogun State that male rice farmers are more economical and price efficient than female rice farmers, implying that male rice farmers maximize profit better than female rice farmers because

of the higher technical efficiencies among them. This assertion has been corroborated by Djato, 2014; Ajani, 2012; and Awotide, 2014).

A research study conducted by Ezumah (2013) revealed a shift in conventional gender roles in agricultural labor among Igbo women of Nigeria due to the increased participation of Igbo men in non-farm activities and wage employment. This resulted in an increased workload for women in food production as well as a breakdown in the gender division of labor in agriculture. Igbo women perform some of the conventional male agricultural tasks such as land clearing, heaping and staking of yam vines in addition to carrying out traditional female activities in the household. Even when performing the conventional male tasks, though, they still face challenges in accessing productive resources. The authors challenged that policy measures should address this issue.

Given the increasing population in Nigeria (5.4 percent birth rate and 3.2 percent death rate), and high rural-urban migration of males seeking paid employment in the urban areas, more effort should be made to make farm resources available to female farmers so that they can achieve greater productivity. Women's access to needed farm resources have been assessed to be very low due to marital and religious reasons, lack of awareness caused by low literacy, lack of ownership and control, lack of sufficient and substantive collateral, and inadequate knowledge and training in the use of improved technologies (Amaza. 2011; Hassan, 2012).

2.7 Constraints to Women's Role in Agriculture

Agriculture represents a dominant sector of the economy of Nigeria. Agriculture also remained the main source of foreign exchange earnings until the discovery of petroleum. Nigerian women constitute more than half of the agricultural labour force. Though rural women in farms and household throughout Nigeria and Africa in general play significant roles in food

production, processing and feeding families. According to Olawoye (2012) there were specific breakthroughs in acknowledging the significant role played by rural women in agricultural production which resulted into a limited value as an input to gender sensitive policy formulation. This according to Olawoye (2012) led to numerous specific studies among different tribes. The end of that decade therefore focused attention on the constraints faced by rural women in their productive activities.

Some of the constraints rural women face in Agriculture are stated below:

a. Lack of Control over Productive Resources

Rural women lack control over productive resources necessary for their livelihood activities. These include lack of control over Land, labour, capital, decision-making. All these are major limitations for the majority of the rural dwellers. There is the need to improve access of rural women to all these productive resources to enhance their productivity and expand the areas they use for production. Without adequate incentives, infrastructure, credit, etc. their productivity will remain low.

b. Lack of Social or Economic Power

Women are usually ascribed or given a lower status than men and they are not usually allowed a voice in development. Rural women need to be encouraged to take active roles in agricultural activities and women should be encouraged to form cooperatives, farm focus group discussions and traditional groups whereby they would be allowed to contribute and give their contributions to agricultural development.

c. Lack of Education and Training

Education is very essential in the development process. It enhances participation and helps to build confidence in women. Inequality with men counterparts inhibits progress. Women's

access to education and training influences their productivity (Adeyeye, 2011). Lack of education and training in basic skills contributes to the vicious cycle of under-development, low productivity and poor conditions of health and welfare of women (Odejide, 2012). Rural women usually rely on their service providers due to lack of education. These service providers include the transporters, marketers, input suppliers and loan providers.

d. Time

Rural women do not have enough time for other economic activities due to their involvement in multiple tasks and this has limited expansion on their scale of activities. This also limits their ability to participate in other income generating activities. Odejide (2010). Jiggens (2012) identified the constraints of rural women in agriculture as fluctuation in the supply and demand with seasonal climatic changes, frequent product market venture, poor opportunities for diversification and multiple roles of women limiting their freedom to exploit commercial assets. More attention should be focused on designing programmes that will help to enhance the income and improve productivity of rural women.

2.8 Empirical Studies

The researcher compared the past researches by experts in the field with the present research. Chipadden (2006) carried out research study titled "The effect of women involvement in agriculture on their standard of living in Dorok District of Shendam Local Government Area in Plateau State. The target population was 1000 women farmers. Random sampling technique was used to select (300) female farmers in six randomly selected villages of the district. The pilot study was carried out in Kaduna state. Questionnaire was used to obtain information from the subjects. Two research questions and two null hypotheses were formulated and tested. Using descriptive statistics of percentages to analyze the data, results revealed that 88% of the

respondents confirmed that their involvement had positive effect on income, health care, children's education and better nutritional status. The past research was carried out in plateau state, while the present research study was carried out in Kaduna state and the Federal Capital Territory, Abuja. The present research study is similar to the past research work in the use of questionnaire as an instrument for data collection. The target population for the present research work will be five hundred women farmers (500) while the target for the past research work was three hundred farmers. In the past research work two (2) null hypotheses were tested while in the present work three (3) null hypothesis will be tested.

Rauf, (2007) conducted a research study titled: "Women farmers in small scale farming and their living standard in Bamako, Republic of Mali". The target population was eight hundred and twenty women farmers. It consisted of 200 women farmers a sample population. The pilot was carried out in Niamey. Four (4) objectives and Four Null hypothesis were formulated and tested using chi-square(X^2) test statistic at 5% (0.05) significance for two tailed non directional, all the four(4) null hypothesis were accepted.

The result showed that women involvement in agriculture had a positive effect in food security and well being in Bamako, Mali. The present research study is similar to the past in the number of null hypothesis formulated. Both research works are similar in the area of women involvement in farming.

Ezumah (2008) carried out a study titled "Effect of skill enhancement of women involved in Agriculture between 2005 and 2007" on their living standard in Imo State'. The study had four (4) specific objectives, four (4) research questions. Descriptive research design was adopted. Out of a total population of ten thousand (10,000) in two agricultural zones, 650 were randomly selected as sample size. The pilot study was carried out in Rivers State. Data was collected using

questionnaire and data analyzed using percentages, frequencies and ranking. The study revealed longer farm tools are easy to operate agricultural equipments as preferred tools. It concluded that women in agriculture are an effective way, government could employ to enhance standard of living for the women farmers.

The present research study is different from the previous work because the past work focuses on skill preferences while the present research is on women involvement in agriculture on their standard of living. The past research work was conducted in Anambra State while the present study will be conducted in Kaduna state and the Federal Capital Territory, Abuja. Both the present and past works are similar in area of research design. The population of the past research work was twelve thousand (12,000) women farmers and (seven hundred and fifty) 750 sample size. The sample population for the current work is five hundred. The past work used percentages, frequency and ranking for analysis while the current research will use Chi-square for data analysis.

Food and Agricultural office of the United Nations (2010) carried out a research study titled "Effect of the involvement of women farmers in agriculture on their standard of living in South Western Nigeria". The population for the study was 1,700 women farmers. The sample population was 400 women farmers Questionnaires were used for data collection; descriptive survey research was used while the data was analyzed using frequency distribution and percentages. Three specific objectives were formulated. The result showed that the women farmers faced several challenges in the areas of agricultural inputs, credit facilities and lack of access to female extension workers. The sample population was 400 women farmers. The reliability was 0.87 and validated by 7 experts of the FAO. Present research work will used a population of five hundred (500) farmers. The present research study will be conducted in

Kaduna and Federal Capital Territory, Abuja while the past work was conducted in South West Nigeria. Three(3) objectives were stated in the past research, while the present research will make use of four(4) objectives. The past work established that increase in agricultural output of the farmers affected their exposure to farmer education positively affecting their standard of living and not just available production factors.

Asfaw and Admassie (2011) carried out a study titled "The influence of institutional factors on the standard of living among women farmers in Accra, Ghana". The target population was one hundred seventy (170) women farmers while the present work has a population of 500.Survey research design were used for the study. A structural questionnaire with a 4 point rating scale which had 40 items and the coefficient alpha analysis yielded reliability of internal consistency of 0.85. The was validated by 4 experts in the ministry of women affairs Accra Ghana. Data were analyzed using mean score, standard deviation and Z-test. Two (2) null hypotheses were tested while three (3) hypotheses will be tested in the present research. The present study will be conducted in Kaduna State and Federal Capital Territory while the past work took place in Accra Ghana. Z- test was used to analyze the null hypothesis in the past work compared with the Chi-square was used in the study. The study revealed a significant difference in the level of adoption of chemical fertilizers and improved propagation materials between literate and illiterate farmers with the educated ones exhibiting a higher level of adoption resulting in greater income and experiencing a higher standard of living.

Nonyelu (2012) conducted a research titled: "Women in Agriculture and standard of living". The role of information Technology in Imo state, South Eastern Nigeria. Four (4) specific objectives and four (4) research questions were formulated. Descriptive survey was used and also questionnaire were used for data collection .The population of the study was 300.

Thesample population was 50 women. The validity was 0.75. Data was analyzed using mean and standard deviation. The similarity of the studies is that descriptive survey was adopted for the past research while descriptive survey research will also be used in the present research study. Questionnaire will be used for data collection in the present research work which is also applicable in the past research work. Four research questions were used in the past research while the current research adopted three research questions, three specific objectives and three hypotheses.

The difference between the past research work and the current work is that the target population of the present research is five hundred (500) compared to the past research work which had a population of four hundred and twenty (420).The past research was conducted in Imo state while the present research will be conducted in Kaduna and the Federal Capital Territory Abuja. The past study revealed that access by women to information facilitated their easy adoption of agricultural innovations resulting in greater yields and better standard of living.

Owusu-Baah (2012) conducted a research titled: "Earning income patterns of women involved in agriculture on their standard of living in Benin West Africa". Three (3) research questions three objectives and three and (3) null hypothesis were formulated. Descriptive survey research design was used. The pilot study was carried out in Ghana, validity 0.81 and validated by three experts in the ministry of Agricultural Accra Ghana. A sample size of two hundred was drawn from the population. Questionnaire was used by the past researcher for data collection. The mean score and rank order was used to answer the research questions and z test used to test the null hypothesis.

The previous study was carried out in Benin republic while the present study will be carried out in Kaduna and the Federal Capital Territory, Abuja. The population of the previous

study was three hundred (300) while the present work is five hundred (500). Three (3) research questions, three (3) objectives and three null hypotheses were formulated in the previous work. In the present work three (3) objectives three (3) research questions and three (3) null hypotheses are also formulated. The present research is similar to the past in the use of the descriptive design .In addition both the past and present work adopted the questionnaire for data collection.

2.9 Summary of the Review of Related Literature

In this study, relevant literatures on involvement, standard of Living, men and women's roles in agricultural production, women and food production and constraint to women's role in agriculture were reviewed. There are many interpretations of involvement with regard to rural development, involvement, include peoples participation in the decision making process, in implementing programmes, their sharing in the benefits of development programmes and their participation in efforts to evaluate such programmes. Involvement is broadly seen as contribution, organization and as empowering of participants through collective activity. Standard of living is how well or how poorly a person or group of people lives in terms of having their needs and wants met. An example of a high standard of living is a wealthy person who can buy anything he wants. However an example of a low standard living is a poor person who does not have enough food or water to drink. In addition, the standard of living is a measurement of how well off a group of people or an individual perceives themselves to be. Standard of living takes into account the quality of housing, medical care, education, transportation and entertainment opportunities.

Works reviewed provided ample evidence that women involvement in agriculture enable them to have access a better standard of living through higher yields. It has been explained that in Nigeria, women effective participation in agriculture to a varying degree depending on the

location, religious educational status and other socio-economic factors. It was discovered that women in agriculture lack control over land, labour and decision making. Also lack of time due to their involvement in agriculture has deprived them from other economic activities thereby limiting their ability to participate in other income generating activities. Their standard of living was positively affected leading to greater financial independence, better household nutrition, and access to better health care and negatively affected in terms of increased workload, less time for personal education, reduced time for social activities. The research resulted in discovering of factors that influence women farmers' involvement in agriculture and their standard of living, motivating factors, constrains and the ways they could better get involved in agriculture in the study area and thus improving their standard of living.

However, none of the literature reviewed sought to relate the influence of women involvement on their standard of living and this is what the study intends to achieve.

CHAPTER THREE
RESEARCH METHODOLOGY

This chapter describes the research method and procedures under the following sub-headings:

3.1 Research Design

3.2 Population for the Study

3.3 Sample size and Sampling Technique

3.4 Instrument for Data Collection

3.4.1 Validity of the Instrument

3.4.2 Pilot Study

3.4.3 Reliability of the Instrument

3.5 Procedure for Data Collection

3.6 Procedure for Data Analysis

3.1 Research Design

The study adopted descriptive survey research design. Primary data was collected based on certain characteristics among the randomly selected sample from the target populations which are located at various points in the study area. According to Otusuka (2011) Descriptive study survey gives accurate assessment of the characteristics of the whole population of the people in

their natural setting. It is more realistic than the experimental in that it investigate the phenomena in its natural setting and provide information about the health, nutritional, education status of the subjects involved in the study.(Akor 2011)

3.2 Population for the Study

The total population for this study is 7,685 women farmers as indicated in Table 1.which is the total population of the registered women farmers in the (Ten) 10 agricultural zones in the study area with the Kaduna State / FCT ADP.

Table 1: Population for the Study

S/No	State/Territory	Agricultural Zone	Population
1.	Kaduna	Birningwari	1021
2.	Kaduna	Lere	1203
3.	Kaduna	Maigana	966
4.	Kaduna	Samaru	800
5.	FCT (Abuja)	Abaji	652
6.	FCT	Bwari	875
7.	FCT	Gwagwalada	748
8.	FCT	Kwali	457
9.	FCT	Kuje	543
10.	FCT	Rubochi	420
			7685

Sources: Kaduna State / FCT ADP Information Units

3.3 Sample Size and Sampling Techniques

Due to the vastness and large population of the study area, the sample size consisted of five agricultural zones out of the ten (10) agricultural zones. In selecting the zones, the options of 'YES' or 'NO' was written on folded paper having all the names of agricultural zones in the study area. After the selection process, those zones with the 'YES' option were selected while those zones with the 'NO' option were discarded by the researcher. Thus, Lere, Maigana, Bwari,

Gwagwalada and Kuje were selected. A total of five hundred (500) women farmers made up the sample size achieved through proportional sampling. Respondents making up the sample size population were selected using simple the hat trick sampling techniques which involve the women farmers picking either a YES or NO option. Those respondents that picked the YES option were selected as the target sample population of five hundred (500) women farmers This is in line with Nwana, 2010 who stated that no fixed number or percentage is ideal, rather it is the circumstance and study situation and study situation that determines the population proportion to be studied. The numbers of women farmers in Kaduna and Federal Capital Territory, Abuja in table 2 were been sampled from table 1.

Table 2: Sample Size for the Study

S/No	State/Territory	Agricultural Zones	Population of Agricultural Zone	Sampled Population
1.	Kaduna	Lere	1200	138
2.	Kaduna	Maigana	970	112
3.	FCT	Bwari	875	101
4.	FCT	Gwagwalada	750	86
5.	FCT	Kuje	550	63
		Total	**4345**	**500**

3.4 Instrument for Data Collection

The instrument used for data collection was a structured questionnaire titled "Women Farmers in Kaduna State and Federal Capital Territory developed by the researcher. It consisted of questions arranged systematically based on the research questions to collect data and information from women farmers in the study area.

Each research question is meant to be answered using research statements/items .Research question 1 consists of items 1-8,research question 2 consists of items 8-14 ,research question 3 consists of item 16 -22.

3.4.1 Validity of the Instrument

The face and content validity of the instrument was determined by six (6) lecturers who were experts in the Agricultural Education, Ahmadu Bello University, Zaria. However, all necessary corrections and modifications were made by the same lecturers in these departments. Research statements were reconstructed to ensure that the face and content validity criteria.

3.4.2 Pilot Study

The pilot test was carried out in Akwanga, Nassarawa State which is not within the study area. It however has similar characteristics with the study areas. Fifty (50) women farmers were given the questionnaire. And the data collected were statistically analyzed. The purpose of the pilot test was to determine the reliability of the instruments, its difficulty level and eliminate ambiguity. The instrument was administered by the researcher with the aid of 2 assistant residing in the area and scored accordingly.

3.4.3 Reliability of the Instrument

The data collected from the pilot study were used to calculate the reliability coefficient using the Cronbach Alpha. The reliability coefficient of the instrument which gave 0.85.This indicates that the items are reliable within acceptable limits. The requirements for internal consistency acceptability is an average value of the correlation coefficient which must be higher than 0.80 (Akor 2010).

3.5. Data Collection

An introductory letter was collected from the department of Vocational and Technical Education, Ahmadu Bello University, Zaria to have access to relevant materials as well as the cooperation of extension officers' in the Agricultural Development Programmes of Kaduna State, as well as the Agricultural and Rural Development Secretariat of the FCT with the intention of introducing the researcher to the respondents and stating the purpose and significance of the study to the participants. In order to acquire appropriate responses, the women farmers were made to understand that the questionnaire and interviews are purposely designed for research, and are thus enjoined to give honest responses.

The researcher administered the instrument (questionnaire) to the respondents personally with the help of agricultural extensions officers at the agricultural zones. The extension officers enhanced access, communication, and honest responses from the respondents in their agricultural zones in Kaduna state and the Federal Capital Territory Abuja.

3.6 Data Analysis

The data collected from the research questions was analyzed using the mean score and standard deviation. The mean score was computed from the responses of the respondents to the items on a four point rating scale of Strongly Agree (SA), Agree (A) , Disagree (D) and Strongly Disagree (SD).The rating scale techniques was used because according to Yaro (2012), will enable the respondents indicate the degree of their opinion to a given statement. The hypotheses were analysed using t-test statistics. Decision Rule: The Null Hypothesis is rejected if the alpha value at 0.05 is more than the significant level of .000.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

In this chapter, the data collected through the use of structured questionnaire were presented using the four-point rating scale; the mean response (X) and standard deviation were all built into tables. The presentation was followed by analysis of each table. The analysis was based on the major highlights of the study. The presentation of the results is in line with the four (4) Null Hypotheses stated. Each of the three Null Hypotheses is followed by corresponding table. Results of the findings on the table formed the last part of the chapter. A total of five hundred (500) respondents were involved.

4.1 Analysis of Data Used for Answering Research Questions.

Results of data are presented in Table 3 to 6

Research Question one: *What is the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their income level?*

Table 3: Difference in the Perception of Women in Kaduna State and the Federal Capital Territory on the Influence of Involvement in Agriculture on their Income Level

S/No	Item	SA	A	DA	SD	Total	X	Decision
1.	I own a house through farming	275	170	25	30	1680	3.46	Agree
2.	I bought a car through farming	175	50	150	125	1085	2.23	Disagree
3.	I have a television set	160	285	25	30	1560	3.22	Agree
4.	I have a refrigerator	275	100	93	32	1568	3.23	Agree
5.	I pay my children school fees through farming	120	180	85	115	1290	2.66	Agree
6.	Farming has increased my income level.	160	285	25	30	1560	3.22	Agree

Table 3 presents the analysis of data used to answer research question one on the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their income level. Items 1-6 were used to answer this research question and the analysis revealed that, women in both Kaduna state and the Federal Capital Territory agreed that, involvement in agriculture had an influence on their income level. Analysis of the items showed that, respondents agreed with the suggestion that, women involvement in agriculture in Kaduna state and the Federal Capital Territory influences their income level. This is so because with the exception of item 2, all other items were agreed by the respondents as they all have a mean score of more than the 2.5 bench mark for agreement. However, respondents did not agree with notion that, they bought a car through agriculture as the item has a mean score of 2.23 which was less than the 2.5 bench mark for agreement.

Research Question 2: *What is the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their health status?*

Table 4: Difference in the Perception of Women in Kaduna and the FCT Abuja on the Influence of Involvement in Agriculture on their Health Status

S/No	Item	SA	A	DA	SD	Total	X	Decision
7.	I have access to quality health services	75	250	100	75	1310	2.70	Agree
8.	I live in a hygienic environment	70	200	150	80	1135	2.34	Agree
9.	I have a personal doctor	50	100	250	100	1040	2.14	Disagree
10.	I visit hospital more often for some ailments	275	80	75	70	1545	3.19	Agree
11.	I regularly go to hospital for medical check up	115	235	100	50	1400	2.89	Agree
12.	I have access to modern health facilities.	75	250	100	75	1310	2.70	Agree

Table 4 presents the analysis of the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their health status. The table indicated that, women involvement in agriculture in Kaduna state and the Federal Capital Territory has a positive influence on their health status. Respondents in both Kaduna state and the Federal Capital Territory agreed with items 7-8 and then 10-12 but disagreed to having personal doctors by the women farmers. With the exception of this item (item 9) all other items were agreed since they all have a mean score of greater than the 2.5 bench mark for agreement.

Research Question 3: *What is the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their nutritional status?*

Table 5: Difference in the Perception of Women in Kaduna State and the Federal Capital Territory on the Influence of Involvement in Agriculture on their Nutritional Status

S/No	Item	SA	A	DA	SD	Total	X	Decision
13.	I have access to food any time	75	250	100	75	1310	2.70	Agree
14.	I eat quality food any time I want	65	245	60	130	1215	2.51	Agree
15.	I obtain variety of foods from my farms.	280	120	60	40	1620	3.34	Agree
16.	I buy food from the money I made through farming	190	100	120	90	1375	2.83	Agree
17.	I always garnish my food with fish or meat	120	180	85	115	1290	2.66	Agree
18.	I sometimes use vitamins supplements.	75	250	100	75	1310	2.70	Agree

Table 5 shows the analysis of items 13-18 used to answer research question three on the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their nutritional status. The table showed that, women

involvement in agriculture in Kaduna state and the Federal Capital Territory has a great influence on their nutritional status. The analysis has revealed that, all the items (13-18) were agreed by the respondents as they all have a mean score of more than 2.5 which is the bench mark for agreement indicating that, women in both Kaduna state and the Federal Capital Territory have agreed that, involvement in agriculture influences their nutritional status.

Research Question 4: *What is the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their food security?*

Table 6: Difference in the Perception of Women in Kaduna State and the Federal Capital Territory on the Influence of Involvement in Agriculture on their Food Security

S/No	Item	SA	A	DA	SD	Total	X	Decision
19.	I have access to quality food all the time	190	100	120	90	1375	2.83	Agree
20.	I have access to sufficient food all the time	120	235	100	45	1405	2.90	Agree
21.	I have enough food to use for the whole year	280	120	60	40	1620	3.34	Agree
22.	I only cultivate food for my own consumption	100	110	190	110	1375	2.44	Disagree
23.	I have food of different types in my house all the time	120	180	85	115	1290	2.66	Agree
24.	I have food surplus to offer for sale	190	100	120	90	1375	2.83	Agree

Table 6 presents the analysis of data used to answer research question four on the difference in the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their food security. Items 19-24 were used to answer this research question and the analysis revealed that, women involvement in agriculture in Kaduna state and the Federal Capital Territory had an influence on their food security. Analysis of the items showed that, respondents in both Kaduna state and the Federal Capital Territory agreed with the

suggestion that, women involvement in agriculture influences their food security level. This is so because all the items except item 22 were agreed by the respondents as they have a mean score of more than the 2.5 bench mark for agreement.

4.2 Test of Null Hypotheses

Results of data used to test the Null Hypotheses is as presented in Table 7 to 10

Null Hypothesis One: *There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their income level.*

Table 7: T-test Analysis of the Difference between the Perception of Women in Kaduna State and the Federal Capital Territory on the Influence of Involvement in Agriculture on their Income Level

Group	N	X	SD	DF	t-cal	t-crit	Decision
Kaduna	250	2.9	1.54	498	0.98	1.96	Retained
FCT Abuja	250	3.0	1.91				

Table 7 shows the t-test analysis on difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their income level. As shown on the table, t-calculated (0.98) was less than the t-critical (1.96) at 5% level of significance. This means that, there is no statistically significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their income level. Therefore, the null hypothesis which states that, there is no significant difference between the perception of women in Kaduna state and the

Federal Capital Territory on the influence of involvement in agriculture on their income level was retained.

Null Hypothesis Two: *There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their health status.*

Table 8: T-Test Analysis of the Difference between the Perception of Women in Kaduna State and the Federal Capital Territory on the Influence of Involvement in Agriculture on their Health Status

Group	N	X	SD	DF	t-cal	t-crit	Decision
Kaduna	250	2.9	1.72				
				498	1.10	1.96	Retained
FCT Abuja	250	2.7	1.74				

Table 8 presents the t-test analysis on the difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their health status. From the table, the computation revealed a calculated t-value of 1.10 less than the critical t-value of 1.96 at 5% level of significance. This suggests that, there is no significant difference between influence of women involvement in agriculture on their health status in both Kaduna state and the Federal Capital Territory. Therefore the null hypothesis which states that, there is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their health status was retained.

Null Hypothesis Three: *There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their nutritional status.*

Table 9: T-test Analysis of the Difference between the Perception of Women in Kaduna State and the Federal Capital Territory on the Influence of Involvement in Agriculture on their Nutritional Status

Group	N	X	SD	DF	t-cal	t-crit	Decision
Kaduna	250	2.9	1.32				
				498	1.11	1.96	Retained
FCT Abuja	250	2.8	0.98				

The t-test analysis used to test null hypothesis three on the difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their nutritional status as showed on table 9 indicated that, women involvement in agriculture has a significant influence on their nutritional status in both Kaduna state and the Federal Capital Territory. This is because; t-calculated (1.11) was less than t-critical (1.96) at 5% level of significance implying that, the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their nutritional status was statistically the same. Therefore, the null hypothesis which states that, there is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their nutritional status was retained.

Null Hypothesis Four: *There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their food security.*

Table 10: T-test Analysis of the Difference between the Perception of Women in Kaduna State and the Federal Capital Territory on the Influence of Involvement in Agriculture on their Food Security

Group	N	X	SD	DF	t-cal	t-crit	Decision
Kaduna	250	2.9	1.22				
				498	1.12	1.96	Retained
FCT Abuja	250	3.0	1.18				

Table 10 shows the t-test analysis on the difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their food security. As shown on the table, t-calculated (1.12) was less than the t-critical (1.96) at 5% level of significance. This means that, women involvement in agriculture in Kaduna state and the Federal Capital Territory has a significant influence on their food security level and therefore the null hypothesis which states that, there is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their food security was retained.

4.3 Summary of the Findings

The findings of this work which was carried out to determine the women perception of involvement in agriculture and the influence on the level of living in Kaduna state and the Federal Capital Territory were based on the results of descriptive statistics (mean score) and t-test analysis. The major findings of this research work were summarized as follows:

- There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their income level.
- There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their health status.
- There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their nutritional status.

- There is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their food security.

4.4 Discussion of the Findings

The results in Table 3 and 7 revealed that, there is no significant difference between the perception of women in Kaduna state and the Federal Capital Territory on the influence of involvement in agriculture on their income level. Therefore, these women experienced greater financial independence, improved nutrition, and better access to health care and better educational exposure for their children. This finding agrees with that of Akor (2011) who also found that involvement by women in agriculture make them to be self-reliant as such increase their financial status. This is also in line with (Awotide, 2014) who opined that standard of living of women farmers experienced a positive change in their nutrition, health care and access to education by their children.

The results in Table 4 and 8 showed that Women involvement in agriculture has a significant influence on their health status both in Kaduna state and the Federal Capital Territory. This was revealed by answers to research question two as presented on table 4 and the test of null hypothesis two as presented on table 8. The finding agrees with the result obtained by Ichaba (2012) who opined that when women are motivated their involvement in agriculture is strengthen thereby increasing their standard of living and improving their health status. Also, Madaki (2012) stated that motivational factors encouraged women involvement in agriculture include acceptability among peer group less friction in the family as regard to resource management among other factors.

Table 5 and 9 showed that women involvement in agriculture has significant influence on their nutritional status and this influence did not differ significantly between the women in Kaduna state and the Federal Capital Territory. This was revealed by answers to research question three as presented on table 5 and the test of null hypothesis three as presented on table 9 respectively. This finding agrees with the study conducted by Odebode (2013) who stated that aside other benefits, women farmers have better nutritional status and improved standard of living.

Another finding of this study revealed that, women involvement in agriculture has a significant influence on their food security in both Kaduna state and the Federal Capital Territory. This was presented on table 6 and table 10. This is in line with Kwaghe (2011) who reported that women form the highest proportion of the economically active population in rural Nigeria and play an important role in agricultural activities, particularly in subsistence food production, where they contribute an estimated 60-80 percent of the total labor used hence assist in ensuring food security. These women contribute significantly to both the economic growth and national development (Ajani 2012).

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter contained the summary, conclusion and the recommendations under the following sub-heading:

5.1 Summary

5.2 Contribution to Knowledge

5.3 Conclusion

5.4 Recommendation

5.5 Suggestion for Further Study

5.1 Summary

The study was carried out to determine the women perception of involvement in agriculture and the influence on level of living in Kaduna state and the Federal Capital Territory. The study had four (4) specific objectives, four (4) research questions and four (4) null hypotheses as guide. Descriptive survey design was adopted for the study. Population of the study was 7,685 women farmers in Kaduna state and the Federal Capital Territory. A sample of five hundred (500) women farmers was selected using proportionate random sampling technique. The instrument used for data collection was a structured questionnaire with a 4-point rating scale. Data was analyzed using descriptive statistics and t-test statistics.

Results indicated that, women involvement in agriculture has significant influence on their income level in both Kaduna state and the Federal Capital Territory. And that women involvement in agriculture has a significant influence on their health status in both locations. It

was also shown that women involvement in agriculture has significant influence on their nutritional status. It was further revealed that women involvement in agriculture has a significant influence on their food security in both Kaduna state and the Federal Capital Territory.

5.2 Contribution to Knowledge

This research work has contributed to knowledge providing information on women's perceptions of involvement in agriculture and the influence on level of living in Kaduna state and Federal Capital Territory, Abuja. Women farmer involvement in Agriculture improves their income level, health status, nutritional status and food security in the study area.

5.3 Conclusion

Based on the findings of this research work, the researcher concluded that:

Women involvement in agriculture increases their income level, improves their health status, enhances their nutritional status and helps to ensure their food security in both Kaduna state and the Federal Capital Territory.

5.4 Recommendations

Based on the findings of this research work, the following recommendations were made:

i. The various governments of the federation should consider diversification of the Nigerian economy by provision of effective policy and finance to encourage women in agriculture.
ii. Awareness should be created about the opportunities and benefits women and their families derive from engaging in agriculture.
iii. Promotion of education of girls and women in the field of agribusiness through special scholarships to the female gender.

iv. A conscious effort should be made to enact a law to grant women access to land, and banks grant them interest free loans

5.5 Suggestion for Further Studies

i. Research should be carried out on the involvement of women in agriculture on their standard of living in other parts of the country outside this research study area.

ii. An assessment of competence of female extension workers is carried out to enhance their competences in research dissemination.

iii. Further research is encouraged in the areas of acquisition of skill in exporting agricultural products by women farmers.

iv. Agricultural societies are encouraged solely for women through government agencies and international donor organizations especially in the production of cash crops.

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APPENDIX I

Agricultural Education Section,
Department of Vocational and Technical Education,
Faculty of Education,
Ahmadu Bello University, Zaria.

Dear Respondents,

REQUEST TO FILL QUESTIONNAIRE

I am a student of the above named institution undergoing a research on the topic 'INFLUENCE OF WOMEN INVOLVEMENT IN AGRICULTURE ON THEIRVSTANDARD OF LIVING IN KADUNA STATE AND THE FEDERAL CAPITAL TERRITORY ABUJA.'

Kindly, respond to the attached questionnaire as objectively as possible. Information provided will be treated with absolute confidentiality and used for the purpose of research only.

Thank you,

Yours sincerely,

BABALOLA ABIODUN.

APPENDIX II

QUESTIONNAIRE FOR WOMEN FARMERS IN KADUNA AND FCT

SECTION A

INSTRUCTION: Tick (√) as appropriate in the column provided against the option of your choice

KEY FOR RATING (LIKERT- TYPE SCALING)

Strongly Agree	4 points
Agree	3 points
Disagree	2 points
Strongly Disagree	1 point

	What are the Factors Influence Women Involvement in Agriculture and their Standard of Living?	SA	A	DA	SD	Total	Mean
1.	Greater financial independence	275	170	25	30	1680	3.46
2.	Improved household food and nutrition security	160	285	25	30	1680	3.22
3.	Improved household food and nutrition	250	195	37	18	1657	3.14
4.	Improved access to better health facilities	270	175	30	25	1680	3.46
5.	Increased work load	175	50	150	125	1085	2.23
6.	Less time for reproductive functions	120	180	85	115	1290	2.66
7.	Less time for self-improvements	275	100	93	32	1568	3.32
8.	Some women are no longer submissive to husbands	130	42	202	116	1063	2.19
	What are the Motivating Factors of Women Involvement in Agriculture?	**SA**	**A**	**DA**	**SD**	**Total**	**Mean**
9.	Offers wider acceptability / respect among peer groups	75	250	100	75	1310	2.70
10.	Leads to less friction in the family with regards to resource management	70	200	150	80	1135	2.34
11.	Improves the attention given by the husbands	90	120	190	100	1130	2.33
12.	Higher purchasing ability to acquire desired home items	275	80	75	70	1545	3.19
13.	It encourages self – reliance	115	235	100	50	1400	2.89
14.	More willingness for reproductive functions	50	100	250	100	1040	2.14
15.	It encourages higher participation in family decision making	150	170	100	80	1390	2.78
	What are the Constraints Faced due to Women Involvement in Agriculture?	**SA**	**A**	**DA**	**SD**	**Total**	**Mean**
16.	Lack of capital and credit facilities	82	285	85	48	1371	2.82
17.	Lack of labour for agricultural operations	230	60	120	90	1155	2.39
18.	Lack of access to land	175	65	175	85	1285	2.65
19.	Low demand for processed products	65	245	60	130	1215	2.51
20.	High cost of processing equipments	280	120	60	40	1620	3.34
21.	High turnover of extension workers	190	100	120	90	1375	2.83
22.	Long distance from common processing equipments	120	235	100	45	1405	2.90