**CHAPTER ONE**

**INTRODUCTION**

**1.1 Background to the Study**

Rural women play a crucial role in agricultural activities across many developing countries, including Nigeria (Obayelu *et al.,* 2020). Their contributions to food security, agricultural productivity, and rural livelihoods are significant, despite often being underrepresented in policy discussions and development programs. In Nigeria, rural women constitute a substantial proportion of the agricultural workforce, contributing to various stages of farming, from land preparation to harvesting (Onyalo, 2019). They are also deeply involved in post-harvest activities such as processing, storage, and marketing, which are essential for ensuring food availability and stability (Swain *et al.,* 2021).

The agricultural sector in Nigeria serves as a critical component of the economy, employing a significant percentage of the population (Olu *et al*., 2023). Rural women are essential stakeholders in this sector, particularly in subsistence farming and smallholder agricultural production. Their labor ensures the sustainability of rural households and communities by providing food and income (Ali & Kamraju, 2023). Despite their contributions, rural women often face barriers such as limited access to land, credit, extension services, and technology, which hinder their full potential (Bano& Hasnat, 2024).

Gender-specific challenges in agriculture disproportionately affect rural women, limiting their productivity and participation (Buehren, 2023). Traditional gender roles and sociocultural norms often restrict women access to resources and decision-making power. Yet, their resilience and adaptability allow them to continue contributing to agricultural activities, even under challenging circumstances. Their involvement in farming activities is vital for poverty alleviation and rural development, making their inclusion in agricultural policies and programs a priority.

Rural women’s participation in agricultural activities spans diverse crop cultivation, livestock rearing, and aquaculture (Elias *et al*., 2023). Rural women are actively engaged in the cultivation of staple crops like maize, yam, cassava, and millet (Nanbol & Namo, 2019). They contribute significantly to planting, weeding, harvesting, and post-harvest management. This participation not only supports food security but also provides them with a source of livelihood.

In addition to primary production, rural women play an integral role in agricultural value chains (Malapit *et al*., 2020). They engage in activities such as food processing, packaging, and marketing, which add value to agricultural produce and improve marketability (Verma *et al*., 2018). These activities are crucial for rural development as they generate additional income and create employment opportunities. However, their efforts in value chain activities are often undervalued and unsupported due to systemic inequalities.

The entrepreneurial potential of rural women in agriculture is often underestimated, despite evidence showing their ability to innovate and adapt to changing circumstances (Okello, 2020). With the right support systems, including access to education, finance, and technology, rural women can expand their contributions to agricultural productivity and value addition (Adegbite & Machethe, 2020). Programs that address gender-specific barriers are essential to unlocking this potential and enhancing their socioeconomic status.

The involvement of rural women in sustainable agricultural practices also contributes to environmental conservation and resilience against climate change (Rao & Moharaj, 2023). Their indigenous knowledge of farming systems and resource management plays a pivotal role in maintaining ecological balance. Despite this, their contributions are often overlooked in environmental policies, underscoring the need for inclusive approaches to rural development.

Education and training are key factors that can enhance rural women’s participation in agricultural activities (Anderson *et al*., 2021). Literacy programs, vocational training, and extension services tailored to women needs can improve their skills and knowledge, enabling them to adopt modern farming techniques and access markets more effectively. Such initiatives could significantly improve the productivity and economic well-being of rural women involved in agriculture.

Recognizing the contributions of rural women in agriculture and addressing the challenges they face can lead to more inclusive and equitable development. Policies that promote gender equality in access to resources, credit, and land ownership are vital. By empowering rural women, communities can achieve greater food security, economic resilience, and social stability.

The integration of rural women into agricultural decision-making processes is equally important. Their voices must be heard in local and national policy discussions to ensure that their needs and priorities are addressed. Participatory approaches that involve rural women in the design and implementation of agricultural programs can lead to more effective and sustainable outcomes.

Rural women play a critical role in transforming raw maize into various processed products (Palacios *et al*., 2020). Their participation includes activities such as threshing, milling, and producing maize-based products like pap, cornmeal, and snacks. These activities not only enhance the value of maize but also create income-generating opportunities for women, contributing to household and community welfare.

**1.2 Statement of the Problem**

Agriculture remains a critical sector in Nigeria’s economy, yet the role of rural women in its development, particularly in value addition, is often marginalized (Adegbite & Machethe, 2020). While rural women are heavily involved in agricultural activities, their contributions to maize value addition are constrained by numerous challenges (Cairns *et al*., 2021).. These challenges hinder their ability to fully exploit the economic potential of maize, which is a staple crop with significant value chain opportunities. The neglect of their involvement in value addition activities undermines their economic empowerment and limits their ability to improve household incomes (Demedeme & opoku, 2020).

Lack of access to modern processing equipment and infrastructure is one of the major problems hindering women involvement in maize value addition. Rural women predominantly rely on manual and outdated equipements for maize processing, which are time-consuming, and inefficient (Khatri & Shrestha, 2023). This limits the quantity and quality of processed maize products, reducing their competitiveness in the market. Without adequate resources, they are unable to scale up their operations or meet market demands, perpetuating a cycle of low productivity and income.

Another critical problem is inadequate access to financial resources and credit facilities. Rural women often lack collateral or face discriminatory practices in accessing loans, which prevents them from investing in value addition activities (Amusan *et al*., 2021)..

Market access is another significant challenge facing rural women involved in maize value addition. Many of them lack the knowledge, skills, and networks required to penetrate larger and more lucrative markets (Rahman *et al.,* 2023).

Finally, the lack of training and extension services tailored to women’s needs poses a significant barrier. Most rural women have limited exposure to modern techniques and innovations in maize processing and value addition (Sinyolo, 2020).

The absence of targeted support and capacity-building programs leaves rural women ill-equipped to address the challenges they face, perpetuating their marginalization in the agricultural value chain. It is against this background that this study seek to answer the following research questions

1. What is the socio-economic character of the rural women farmers involved in maize value addition?
2. What are the various maize value addition products identified by rural women?
3. What is the level of participation of rural women in maize value addition?
4. What are the benefits of participating in maize value addition for rural women?
5. What are the constraints faced by rural women in maize value addition?

**1.3 Research Objectives**

The main objective of this study is to assess the impact of rural women participation in maize value addition while the specific objectives are to:

1. describe the socio economic characteristics of rural women involved in value addition
2. identify the various maize value addition products
3. determine the level of participation of the respondents in maize value addition
4. determine the benefit derived from participating in maize value addition
5. examine the constraints to maize value addition

**1.4 Hypothesis of the study**

There is no significant relationship between the socio-economic characteristics of the respondents and their level of participation in maize value addition

**1.5 Justification of the Study**

This study seeks to address the economic and social barriers they face in maize value addition. By participating in value-added activities such as processing maize into flour, snacks, or animal feed, rural women can diversify their income sources, thereby reducing their dependence on seasonal farming. This empowerment ensures greater financial stability and fosters skill development, which can improve their overall economic resilience. Additionally, equipping rural women with access to resources and markets can enhance their productivity, enabling them to fully realize their potential as vital contributors to the agricultural sector.

The study provides valuable insights into the challenges and opportunities associated with rural women’s participation in maize value addition. It highlights critical areas such as access to finance, education, and technology, enabling the development of targeted interventions and policies that address these gaps. Policymakers can leverage the findings to create gender-sensitive programs that promote equitable access to resources and encourage active female participation in agricultural value chains. This, in turn, contributes to national economic growth and aligns with broader goals of gender equality and rural development.

At the community level, empowering women through maize value addition has a transformative impact. Women who earn stable incomes often reinvest in their families and local communities, leading to improved living standards, better nutrition, and enhanced education for children. Additionally, fostering women’s involvement in value-added processes can strengthen community cohesion and promote sustainable economic growth. By integrating eco-friendly and resource-efficient practices, this project also supports environmental stewardship, ensuring that maize processing benefits the community in a sustainable manner. This multiplier effect underscores the importance of enhancing rural women's roles in value addition for broader community development.

**CHAPTER THREE**

**METHODOLOGY**

**3.1 Study Area**

The study will be conducted in Kwara State, located in the North Central region of Nigeria. Kwara State was chosen due to its ranking as one of the six poorest states in Nigeria in terms of household poverty and economic performance. The state comprises 1,258 rural settlements (NPC, 2006), with approximately 83% of its population classified as poor (NBS, 2006). It lies between longitudes 2°30′E and 6°25′E and latitudes 7°45′N and 9°30′N of the equator, sharing boundaries with Osun, Oyo, Kogi, Niger, and Ekiti States, and internationally with the Republic of Benin to the west. The state capital is Ilorin, and the state consists of sixteen Local Government Areas (LGAs). According to the NPC (2019), Kwara State has an estimated population of 3.26 million, with about 70% of the population engaged in farming. The population density is approximately 73 persons per square kilometer.

**3.2 Sampling Procedure and Sample Size**

A three-stage sampling procedure will be used to select respondents for the study.

First stage will involve a purposive selection one Local Government Area (L.G.A) from the four ADP zones in Kwara State because of the active involvement of rural women in maize value addition which has been confirmed by Awoyemi, *et al* (2023) in a journal of agribusiness on Rural Women Farmers’ Participation In Maize Value Chain And Socio-Economic Empowerment In South-West Nigeria

Second stage will involve a random selection of two rural communities from each of the selected LGAs

Third stage will involve a random selection of fifteen rural women involved in maize value addition to give a total number of 120 respondents

**3.3 Instrument for data collection**

Data will be collected using well-structured questionnaires.

**3.4 Reliability of instrument**

The questionnaire will be tested and retested in order to guarantee the instrument's reliability. In order to do this, 20 respondents who will be chosen from communities completely different from the study area and excluded from the final study population will be asked to complete the intended questionnaire. The same group of respondents will take the second test two weeks later. The Cronbach's alpha test will subsequently be applied to both the first and second tests, and the coefficient's result will be computed appropriately.

**3.5 Validity of instrument**

Experts from Agricultural Extension, Rural Development, and other pertinent departments will review the questionnaire design and make any changes to ensure content validity. This will be carried out in conjunction with the study's objective and the set hypothesis. Before employing the instrument for data collection, the opinions and recommendations of pertinent specialists will be carefully taken into account to make sure every questionnaire item measures the things it is supposed to measure.

**3.6 Data analysis**

The study will employ a combination of descriptive and inferential statistical techniques to analyze the data.

Frequency distribution, percentages, means, and standard deviations will be used to summarize the socioeconomic characteristics of maize farmers and to describe the structure and marketing strategies of maize farmer organizations. Cross-tabulation will be employed to explore relationships between variables, such as membership in farmer organizations and access to market facilities.

**3.5.1 Regression Analysis:**

Multiple regressions will assess the level of rural woman participating in maize value addition based on socio-economic and cultural factors. Social economic variables like (age, gender, level of education, income, primary occupation) and other variables will be use.

**Model:**

Y=β0​+β1​X1​+β2​X2​+β3​X3​+⋯+βk​Xk​+ϵ

**Dependent Variable (Y):**

Rural women Participation level

**Independent Variables:**

Access to credit (binary or continuous, e.g., "received credit" or amount of credit received).

1. Social economic variables like (age, gender, level of education, income, primary occupation )
2. Access to training or skill development programs
3. Access to resources (e.g., financial, technological)
4. Knowledge of value addition techniques
5. Access to markets or networks
6. Cultural and social norms (e.g., gender roles)
7. Error Term (𝜖ϵ): Captures unmeasured factors influencing the dependent variable.
   * 1. **Ordinary Least square:**

OLS regression will estimate the effect of women's participation in maize value addition on benefits such as income or social empowerment. Social economic variables like (age, gender, level of education, income, primary occupation ) and other variables will be used.

**Model:**

Y=β0​+β1​X1​+β2​X2​+β3​X3​+⋯+βk​Xk​+ϵ

**Dependent Variable (Y):**

Income level

**Independent Variables:**

Access to credit (binary or continuous, e.g., "received credit" or amount of credit received).

1. Social economic variables like (age, gender, level of education, income, primary occupation )
2. Access to training or skill development programs
3. Access to resources (e.g., financial, technological)
4. Knowledge of value addition techniques
5. Access to markets or networks
6. Cultural and social norms (e.g., gender roles)
7. Error Term (𝜖ϵ): Captures unmeasured factors influencing the dependent variable.

**3.5.4** **Factor Analysis**

This will be used to identify and categorize the main factors (e.g., financial barriers, training limitations, cultural norms) that constrain women’s participation in maize value addition.

* 1. **Measurement of Variables**

The variable of interest in this study include independent and dependent variables

**1. Dependent Variable**

* Level of participation of the respondents in maize value addition

**2. Independent Variables**

1. The socio-economic characteristics

* Age (the actual age of the respondents)
* Gender (male =1, female=0)
* Marital status (single=1, married =2, divorced =3, widowed=4, separated=5)
* Level of education ( actual year of schooling)
* Income (actual income)
* Primary occupation (primary occupation of the respondents)

1. Benefits derived from value addition (various benefit derived from value addition)
2. Constraints to maize value addition (various constraints to maize value addition)