

Effect Of Women Participation in Trade on Employment Generation and Poverty Reduction in Jos Metropolis, Plateau State, Nigeria

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Abstract: This study examines the effects of women participation in trade and employment generation on poverty reduction in Jos Metropolis. Primary data was used for the study, which was collected with the aid of survey instrument (structured questionnaire). Using a sample of 333, the study adopted an explanatory sequential mixed-methods design and simple linear regression was employed for the data analysis. The descriptive statistics showed that trading had a mean score of 13.84 to influence poverty reduction at 15.21. Result of the analysis shows a negative relationship with ($\beta = -.143$; $t\text{-value} = -1.768$; $P\text{-value} = 0.079$) The relationship between the variable are not statistically significant at $p < 0.079$ with a low beta value and $t\text{-value} > -.143, -1.767$. It further showed that R-square is .013 indicating that trading among women reduces poverty in 1.3%. The remaining 98.7% means there are other factors that can be attributed to poverty. This means that, when other factors are held constant, an improvement in the trading by 1%, reduces poverty by 1.9%. The result found that women participation in trade and employment generation has insignificant effect in reducing poverty. The study concluded that trading generates employment for women and the proceeds from the trade, according to the women, is used to settle their bills which they said was the main reason for being so much involved in trading. The negative relationship that exists between the independent variable and the dependent variable could be as a result of the level at which women engaged in trade. The avenues by which trade reduces poverty can be static or dynamic. On a static level, a classic trade theorem asserts that by raising the relative price of goods, trade can bring increasing returns to low-skilled labour, which is relatively abundant in developing countries. The study recommend that, trading is an avenue for curbing poverty, women should engage in a meaningful trading activities since it has a way of reducing poverty, Government, Non- Governmental Agencies and Financial institutions should roll out policies that are effective and capable of boosting trading among women since it will reduce poverty level among women in Jos metropolis of Plateau State, and that bureaucratic bottle neck in the process of policy implementation should be looked into in order to enable women engage meaningfully in trade in Jos Metropolis.

Keywords: Women participation, Trade, Employment Generation, Poverty Reduction, Jos Metropolis.

I. Introduction

Globally, Poverty remains one of the most pressing challenges, affecting billions of people. According to the World Bank (2022), over 700 million people live on less than \$2.15 a day, the international poverty line. That means about 10% of the world's population lives in poverty. Despite significant strides in poverty reduction over the past decades, progress has been uneven, with Sub-Saharan Africa accounting for the highest poverty rates. One in every 10 women is living in extreme poverty (10.3 per cent). If current trends continue, by 2030, an estimated 8 per cent of the world's female population which is 342.4 million women and girls will still be living on less than \$2.15 a day (UN Women 2023). There is a perception about women in Africa and the world at large, in comparison to their male counterparts, women are comparatively deprived socially, economically, culturally, and politically, which has led to women's representation being smaller in the developmental process and this has created disparity in most aspects of their economic transformation and development (Okoye & Amehojo, 2023). This disparity is worsened by economic inequalities, limited access to education, healthcare, and gender disparities that disproportionately affect women.

Poverty is a global phenomenon that continues to threaten human survival with over 60% of the population living below the national poverty line (National Bureau of Statistics, 2022). One of the bitter realities in Nigeria is the experience of rising poverty and unemployment and Nigerian women experience this problem of poverty in different ways than their male counterparts. Nigeria is one of the countries where poverty exists in the midst of plenty. The country has abundant natural and human resources, and the poverty rate has been rising for more than 20 years, with a variety of negative effects on people's welfare (Okoye & Amehojo, 2023). For

stakeholders, this rising trend in poverty has been the main concern. Because poverty has multiple dimensions, efforts to combat it must also have multiple targets and be expected to take a broad, multifaceted approach.

The labour force's evidence According to data from the National Bureau of Statistics (NBS), unemployment disproportionately affects women. According to the report, 9.5 million men and 12.2 million women were unemployed (NBS, 2022). This is really unsettling and suggests that women are inherently marginalized in the workforce. It was predicted that there were 80 million persons in the work force overall, with 41.6 million men and 38.6 million women. During the third quarter of 2018, male unemployment increased from 20.3% to 22.9%, while female unemployment increased from 26.6% to 31.6% (NBS, 2022). Evidence of gender inequality in the workplace exists, and it is influenced by a number of social, cultural, and traditional variables. According to Dabla-Norris & Kochhar (2019), the global economy bears significant expenses as a result of the unequal playing field between men and women. They point out that previous research on the economic effects of gender gaps made the assumption that men and women would likely have the same potential from birth, but that differences in access to legal rights, social and cultural factors, healthcare, education, and technology prevent women from reaching their full potential.

Women in Plateau State seek economic empowerment to improve their standard of living and means of livelihood for their families (Okoye & Amehojo, 2023). This is evident in women's participation in the establishment of many cottage industries for soap making, fish smoking, tie and dye, bead making, hair dressing, tailoring, and such other economic activities like buying and selling of household items, buying and selling of animals, farming, rearing of animals, poultry, etc. which can be grouped into Trade, Services and Agricultural activities and testify to the initiatives of women in the state (Okoye & Amehojo, 2023). Part of these initiatives is their mobilization of one another to form tribal association meetings, fellowships in their respective worship places and cooperative societies where they run them effectively. This is in addition to identifying with and joining some NGOs who help to reduce their hardship. Women economic empowerment leads to improved living standard for families and communities, fostering employment generation, improved education, and enhanced health (World Economic Forum, 2023).

Women in Jos are active in trade and commerce, contributing to household incomes and local economic growth. However, socio-economic challenges such as inadequate access to credit, cultural constraints, and low levels of formal education limit their potential to drive significant change in poverty reduction and employment generation. Women's participation in trade in Jos Metropolis is vital for addressing these challenges. By engaging in micro, small- and medium-scale trading activities, women not only sustain their households but also contribute to job creation and the reduction of poverty at the community level. Understanding the relationship between women's economic activities and socio-economic outcomes such as employment and poverty alleviation is essential for designing effective interventions that promote inclusive development.

This study aims to explore the impact of women's participation in trade on employment generation and poverty reduction in Jos Metropolis, Plateau State, Nigeria. By examining the socio-economic contributions and challenges faced by women traders, this research will provide insights on how to resolve this demand of poverty reduction, through employment generation, food supply and income inequality and formulates policies and programmes that are tailored towards empowering women economically in Jos metropolis, Plateau State, and the nation as a whole.

II. Literature Review

2.1 Conceptual Clarification

The conceptual issues in this paper comprises of the following

2.1.1 Concept of Women participation

Women's participation in political and economic institutions is defined by Idea Group Incorporation Global (IGI Global) (2018) as both a process and a result of women's involvement in bureaucracies, policy-making bodies, and representative organizations. This refers to women's active participation and engagement in a range of life domains, such as the social, political, economic, and cultural ones. It highlights the significance of women's participation, representation, and inclusion in leadership positions, decision-making processes, and all facets of society. It recognizes that, in an environment free from prejudice and obstacles, women ought to have equal opportunities, rights to participate, and a voice. In this research, women participation in trade refers to the involvement and representation of women in the ownership, management and operation of businesses.

2.1.2 Concept of trade

Trade is the fundamental state of commercial activity, which encompasses the sale and acquisition of products and services. It entails the sale or exchange of commodities or services. The goods are built by the producers, then sold to a wholesaler, then to a retailer, and finally to the consumer. Within the economy, the trade

can take place between the producers and the consumers. Trade is the exchange of resources, goods, or services between people, businesses, or countries in order to meet needs, make money, or gain something from both parties. Dating back to ancient civilisations, it is a basic economic activity that has developed into a major force behind the integration and growth of the world economy. Comparative advantages, specialisation, and technology improvements enable trade to take place both domestically and internationally (Krugman & Obstfeld, 2018).

According to Unacademy (2025) Trade can be divided into two subgroups:

Internal Trade: This type of trade is done within the geographical boundaries of a country. And it has the following characteristics: It involves buying and selling items happens within the same country's borders, payment for products and services is done in the home country's currency, it entails interactions between producers, customers, and middlemen, it is made up of a network of middlemen and agencies that facilitate the exchange of goods and services, when compared to international trade, the risk of transportation is much lower in domestic trade, in domestic trade, only the laws of the country in question must be obeyed, the goal of domestic trade is to deliver goods and services at a low cost, the goods must be manufactured in the United States, goods must be purchased from a person or a company based in a specific country, deliveries can be made utilizing locally available modes of transportation. It does not include any customs or import duties, but customers must pay the government taxes. Internal Trade is further divided into two sub categories on the basis of quantity of goods,

Wholesale Trade: A wholesaler is a middleman who connects producers and retailers. The wholesaler purchases huge quantities of products from manufacturers and sells them to retailers, who then sell them to customers. Wholesalers serve as a link between manufacturers and retailers.

Retail: A retail trader connects wholesalers and customers. The retailer purchases things in smaller quantities from wholesalers and sells them to customers based on their needs. The Retailer is the individual who distributes things to customers. Hawkers, pedlars, and general stores are examples of small-scale retailers.

External Trade: This type of trade is done whenever trade occurs between two countries, it is also known as foreign trade. It has three Major subgroups:

Import Trade: Import commerce is defined as when a country's home country obtains or purchases items from another one. In import, a trader from one country purchases goods from a trader from another country.

Export Trade: When a country sells its products to another country, this is also referred to as export commerce.

Entrepot Trade: When a country imports things from another country and then re-exports them after adding some value, this is known as entrepot trade. The exchange of goods and services, most typically in exchange for money, is referred to as trade. Within a country or between trading nations, trade can take place. The theory of comparative advantage predicts that international commerce benefits all parties, despite detractors' claims that it actually leads to stratification among countries.

2.1.3 Concept of Poverty

The word poverty comes from old French *pauvreté* (Modern French: *pauvreté*), from Latin *paupertās* from *pauper* (poor) (Walter, 2005). There are several definitions of poverty depending on the context of the situation it is placed in. According to United Nations, fundamentally, poverty is the inability of having choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and clothe a family, not having a school or clinic to go to; not having the land on which to grow one's food or a job to earn one's living, not having access to basic needs (Gordon, 2005). According to World Bank, Poverty is pronounced deprivation in well-being, and comprises many dimensions. It includes low incomes and the inability to acquire the basic goods and services necessary for survival with dignity. Poverty also encompasses low levels of health and education, poor access to clean water and sanitation, inadequate physical security, lack of voice, and insufficient capacity and opportunity to better one's life (Tefaye, 2014). Poverty is usually measured as either absolute or relative:

Absolute poverty: This measures poverty in relation to the amount of money necessary to meet basic needs such as food, clothing, and shelter. Absolute poverty or extreme poverty or abject poverty is "a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information (Gordon, 2005). It is a condition so limited by malnutrition, illiteracy, disease, squalid surroundings, high infant mortality, and low life expectancy as to be beneath any reasonable definition of human decency. Is a set condition, which is the same in every country, and does not change over a period of time (Sachs, 2005)

Relative poverty: It views poverty as socially defined and dependent on social context, hence relative poverty is a measure of income inequality. This income inequality is measured by Gini coefficient. The value of Gini coefficient lies between 0–1.0 would mean there is no inequality. In other words, every citizen would earn the same. It means there would not be severe inequality. Usually, relative poverty is measured as the percentage of the population with income less than some fixed proportion of median income (Raphael, 2009). Relative poverty

reflects better the cost of social inclusion and equality of opportunity in a specific time and space. Relative poverty, on the other hand, refers to conditions which are subjective to the society in which the person lives, and therefore, does vary between countries, and can change over time (Sachs, 2005).

In general, Poverty is a condition in which people lack satisfactory material resources (food, shelter, clothing, housing), are unable to access basic services (health, education, water, sanitation), and are constrained in their ability to exercise rights, share power and lend their voices to the institutions and processes which affect the social, economic and political environments in which they live and work (Siyum, 2015). Ukwu (2002), suggests that poverty is a living condition in which an entity or individual is faced with economic, social, political, cultural and environmental deprivations. These deprivations are captured as lack of food, poor expectancy rate, poor environmental conditions, low educational opportunity, poor health services, general lack of economic infrastructure and lack of active participation in decision making either as it affects the individual or a nation. For the purposes of this study, poverty is defined as a condition of deprivation brought on by a lack of productive resources, factors of production, and income-generating means that enable a person or a group of people to meet their basic needs and enjoy a minimally acceptable standard of living. Access to a high-quality education, clothing, shelter, health care, and balanced food are examples of basic needs and services.

2.2 Empirical Review

According to Obodoechi, Omeje, Nwokolo, Urama, Asogwa, Agu, & Ukwueze (2022), policymakers, researchers, NGOs, politicians, the government sector, and international agencies have all paid close attention to women's involvement in economic operations. This is due to research showing that women's participation in income generation tends to increase family income, promote children's education, enhance family members' health, supply food, build family assets, and aid in the overall growth of economies. However, women have not been carrying out these responsibilities because of social restrictions that prevent them from participating in income-generating activities, particularly in developing nations like Nigeria. Even individuals who want to start their own business are constrained by both non-economic and economic factors. Due to these obstacles, women are unable to participate in economic activity. This study examined the influence of economic constraints that hinder female-owned businesses in Nigeria, the importance of social inclusion on female-owned businesses in Nigeria, and the non-economic factors influencing Nigerian women's participation in business entrepreneurship. The World Bank's Global Economic Report provided the study's data. Findex database (2017), and the analysis was conducted using the logistic regression model. According to the study's findings, women-owned businesses in Nigeria were positively and significantly impacted by the number of female account holders, financial institution accounts in rural regions, grants or loans to starting enterprises, and household size. To encourage more female enterprises in Nigeria, it is advised that the government establish more effective grant and loan programs specifically aimed at female entrepreneurs in both rural and urban regions. Even though the research uses the World Bank's Global Economic Report which may not be in-depth, it has provided the present research with the understanding of how economic and noneconomic factors has affected women participation in economic activities.

In another study, Sarker, Zukiewicz-Sobczak, Alam, Rabbany, Hossain, & Aziz (2021) asserted that women's empowerment has a significant impact on education, health, and nutrition as well as the wellbeing of households, children, and society at large. Utilizing ordinary least squares models, logistic regression, descriptive statistics, a well-structured questionnaire and a random sampling technique, 914 married women from rural areas of Bangladesh were asked to provide primary data. The study focuses on household deprivation with respect to standard of living, health, and education. The study found that women's empowerment has a significant impact on the reduction of income poverty and multidimensional poverty in the society, even though gender violence, taking resources against women's will, and preventing women from working outside have caused a significant decline in per capita income and an increase in income poverty and multidimensional poverty. Education, asset ownership, decision-making power over children's health and education, and access to medical facilities have all contributed to a significant decline in income poverty and multidimensional poverty. Research's conclusions were used as a road map to launch effective women's empowerment initiatives and reduce Bangladesh's poverty rate as you move closer to other social and developmental objectives. The necessity for women's inclusive participation stems from the fact that women's empowerment has an impact at the local level and emerges through various stages of economic growth. Although the study was carried out in South Asia with similar economic situation as Nigeria, such as, high level of population, high rate of poverty (multidimensional poverty) etc. it has provided empirical clarifications of the role of women participation in trade and poverty reduction and the need for their inclusiveness, which this study sought to investigate.

Adegoke & Johnson (2019) carried out a thorough review of the body of research on women's employment in Nigeria. Using a systematic literature review, they looked at a range of reports, academic sources, and empirical studies. In order to shed light on the variables affecting women's participation, such as organizational biases, educational obstacles, and cultural norms, the review summarized the findings. Nevertheless, one of the study limitations was a potential confounding variable that may affect the relationship

between policies and women's participation. Despite the Confounding variable used in the research, it has provided an avenue for the incorporation of other variable such as non-economical variable like self-confidence, overcoming gender-related challenges, and patience which is inherent in women, in order to achieve an in-depth analysis of the research objectives in this study.

Shuaibu & Ohams (2024) presents a well-structured and relevant study on the relationship between trade openness, gender gaps, and unemployment in Nigeria from 1991 to 2021. Given that unemployment remains a pressing concern for developing economies like Nigeria, the study contributes valuable insights into how economic policies, particularly those related to trade and labour markets, interact with employment dynamics. Using co-integration and vector error correction models to ensures a robust analysis of both long-term and short-term relationships. Findings shows the existence of a co-integrating association among unemployment, trade openness, gender gaps, and the other independent variables on the long-term analysis. The estimates indicate that trade openness negatively and significantly affects unemployment. However, the short-run estimates showed that real wages negatively and significantly impact unemployment. In contrast, the male-female labour force ratio (an indicator of the gender gap) negatively and significantly affected Nigeria's unemployment. The coefficient of trade openness was negative but statistically insignificant in the short run. The study provides actionable recommendations, advocating for trade liberalization, market-reflective wages, and gender-inclusive policies to address unemployment. The study's evaluation of economic policies, particularly those related to trade and their interaction with employment dynamics makes it relevant to the current study.

Examining the effect of trade openness and poverty reduction in Nigeria between 1986 and 2020. World Bank's Development Indicators and the Central Bank of Nigeria Statistical Bulletin data were used alongside the Augmented Dickey Fuller unit root test for the study. The study used the Ordinary Least Square (OLS) method and the Johansen Cointegration test for analysis. The evidence indicates that trade openness has significantly reduced poverty in Nigeria, and that this effect is currently negative. This analysis concludes that increasing trade openness over time hasn't increased productivity. Among other things, the research recommends that the government begin significant trade reforms that can increase domestic output, particularly in agriculture, where we have a comparative advantage, according to the research, among other recommendations. (Cletus & Yamusa. 2023). The use of secondary data in this study may have limited the expected result. Hence, the present research will fill the methodological gap of using survey design (Primary Data) in order to have an in-depth analysis of the research objective.

2.3 Gap in literature

Even though the reviewed literature has made significant contributions to the understanding of women's role in reducing poverty and the challenges they face in Nigeria, some of these studies carried out by Obodoechi et al (2022), Sarker, et al (2021), Adegoke & Johnson (2019) Shuaibu & Ohams (2024), Cletus & Yamusa (2023) and many others focused on trade, employment, poverty reduction, inequality etc. in Nigeria. However, from the available literature, there is no study on the relationship that exist between women participation in trade, employment generation and poverty reduction in Jos metropolis. The reviewed literatures used variables such as trade openness or liberalization, gender gap, labour force ratio, policy restriction, social restriction, household deprivation etc., but fail to include the individual factors such as self-confidence, overcoming gender-related challenges, and patience which is inherent in women. These factors have impacted the efforts of developing countries to reduce poverty even though a variety of strategies and interventions have been put in place to encourage women's participation in businesses. This study also uses survey design (Primary Data) in order to carry out an in-depth analysis of the research hypotheses which none of the empirical review has indicated the use of this technique in the related studies thus, this study intend to fill these gaps.

2.4 Theoretical Framework

This study adopts the theory of Cultural Belief Systems that Support Sub-Cultures of Poverty. Lewis (1958) introduced the idea of the "sub-culture of poverty". The term is used to illustrate the "culture" for convenience, and the term got popularity. It was noted that certain persistent patterned associations of traits among families with the lowest income level and the least education is based on the culture of poverty inherent there. This theory focuses on the belief that poverty is created or caused by the transmission over generations of a set of beliefs, values, and skills that are socially generated but individually held. Additionally, individuals are to be blame because they are victims of their dysfunctional subculture or culture. The theory has its root in the "Culture of Poverty". The concepts of culture of poverty and social exclusion provides a framework that explain how poverty is created and sustained in some neighbourhoods or among some groups.

The cultural and environmental factors relate to the effects of people's residential environment that tends to shape poverty or success. The theory outlined the problems and conditions favourable for developing the culture of poverty and argues that they flow from an industrial capitalist society with its inherent inequalities among which are, wage labour and production for profit, a high rate of unemployment, underemployment for unskilled labour,

low wages, failure to provide social, political, economic organization for the low-income population mutual relationship system, the values of the dominant class stressing the accumulation of wealth and property, the possibility of upward mobility, and thrift, and blaming the poor for personal inadequacy. The theory is related to this study because it pointed out the way of life developed among the people under these conditions of the culture of poverty to includes, lack of effective participation and incorporation in the key institutions of the society (Marginalization).

It emphasized the socio-cultural and economic norms that influence women's participation in business. It highlights the roles assigned to women in traditional setups, the challenges they face in terms of multiple roles, gender socialization, and access to assets, explores how cultural beliefs, values, and skills can perpetuate poverty within specific groups or neighbourhoods. It acknowledges the marginalization and restriction of women due to cultural practices and focuses on how individual factors such as discrimination, lack of self-control, and self-confidence affect women's participation in trade and contribute negatively to their economic empowerment which causes poverty. The choice of these variables is because women in Jos metropolis faced a number of challenges that ranges from social and cultural norms, values, beliefs, and practices that shape their individuals' behaviours and interactions within the society, limited access to financial resources, market opportunities, competition, and economic empowerment, lack of self-confidence, patience, limited access to skills and education, they lack the will to overcoming gender-related challenges.

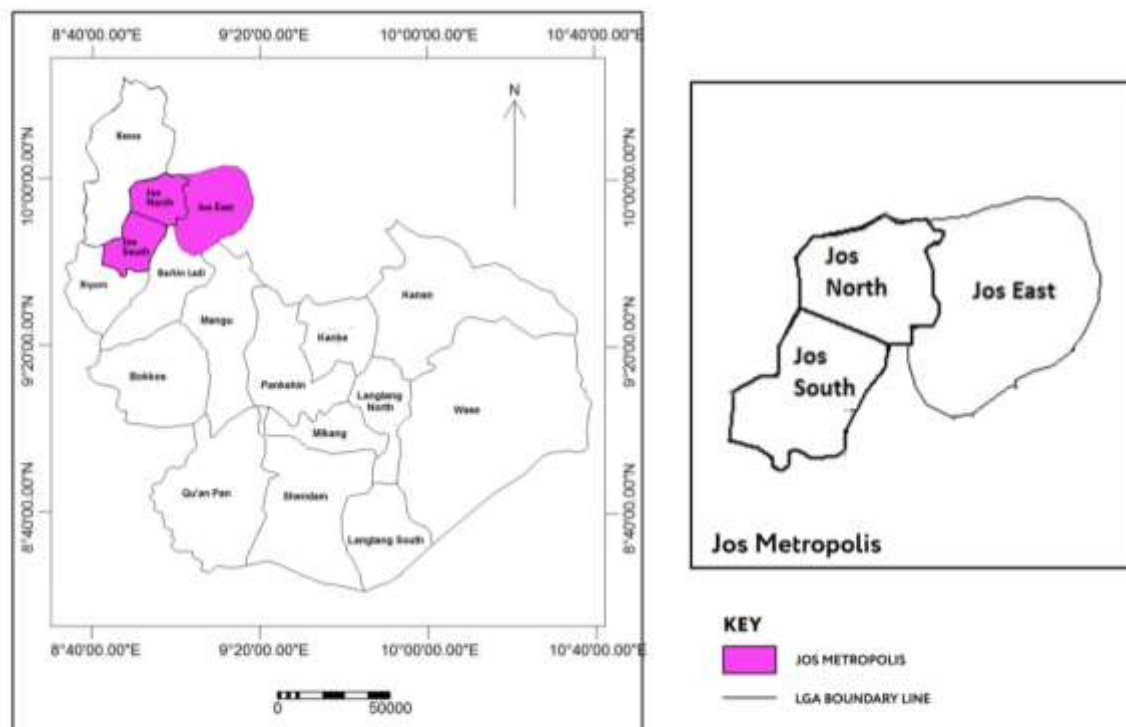
III. Methodology

The research design adopted for this study is an explanatory sequential mixed-methods design. This design involves collecting and analysing quantitative and qualitative data to provide a wide-ranging knowledge of the research problem (Creswell & Creswell, 2023). The choice of this research design is based on several advantages it offers. First, the design allows for a comprehensive understanding of the research problem by combining quantitative and qualitative data collection and analysis. Second, the design enables triangulation of data, which enhances the validity and reliability of the study. By corroborating findings from different sources, researchers can gain a more accurate and nuanced understanding of the complex relationship between women's participation in trade and poverty reduction in Jos Metropolis.

3.1 Population and description of the study area

According to National Population Commission Census (NPC) (2022) Jos Metropolis is a bustling city with a population of nearly 1 million people, and it is known for its diversity in culture and economic activities. The city is a centre for small and medium-scale businesses, with a high concentration of trade owned and operated by women. The targeted population for this study is 2000 women who are registered and are participating in micro, small and medium enterprise (MSMEs) (Trade, Services and Agriculture) in Jos Metropolis, Plateau State Nigeria. (Ministry of Commerce and Industry report 2023).

FIGURE 2: Showing the Map of Plateau State it's Local Government and Jos Metropolis.



Source; Bureau for Land Survey and Town Planning Plateau State (2018)

3.2 Sample size Determination and Sampling Method

The Taro Yamane (1967) formula for populations that are known and finite was used. The formula and computation are show as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = the desired sample size,

N = the total population under study,

1 = a constant,

e = signifies the allowable error limit (0.05)

2 = square of e.

Therefore,

The sample size is 2000 and is determined using Taro Yamane (1967) sample technique. The formula is given by:

$$n = \frac{N}{1 + N(e)^2} \dots \dots \dots \text{equation 3.1}$$

Where:

n = Sample size

N = Population size

1 = Constant

e = Margin of error (5%) = 0.05

substituting into the formular which is equation 3.1 to get the sample size,

$$\begin{aligned} n &= \frac{2000}{1 + 2000(0.05)^2} \\ n &= \frac{2000}{1 + 5} \\ n &= \frac{2000}{6} \end{aligned}$$

$$n = 333.3333$$
$$n \approx 333 \text{ respondents}$$

The sample size for this research is therefore 333 small business from the total population of 2000. Stratified sampling was used to ensure that different groups of the population are adequately represented in the sample so as to increase the population's level of accuracy when estimating the parameters. The study identifies categories of trades that women participate in the three Local Government Area of Jos Metropolis. The strata are formed based on members' that shared different attributes or characteristics. A sample from each Local Government Area was taken in a number that is proportional to the stratum's size when compared to the population. These subsets of the strata were then pooled to form the sample. The two hundred and fifty (333) respondents were purposely selected for the study. The reason for adopting the purposive sampling technique for the study is to allow every respondent the opportunity to be represented or selected for the study. Participants were selected based on their experiences and insights into women's participation in trade in Jos Metropolis. It also allows the quantitative and qualitative data to be integrated and triangulated during the analysis phase. Triangulation of data will enhance the validity and reliability of the study by corroborating or contrasting findings from different sources.

3.3 Methods of Data Collection

A Proportionate Stratified Sample was used to distribute the research instrument among the three local governments in Jos metropolis. The major research tool for data collection on the effect of women participation in trade and employment generation on poverty reduction in Jos metropolis, plateau state, Nigeria was survey instrument (structured questionnaire) which was designed using simple English language that respondent will find clear and precise, free of ambiguity. A total of 333 questionnaires were administered to the respondents, 291 were properly filled and returned, which represents 87.3% retrieval rate. To ensure accuracy, they were splits into two groups: While Section 'A' collected the demographic data from the respondents, Section 'B' concentrate on the study's variables. Respondents were asked to rate statements pertaining to the research topic on a 5-point Likert scale, with 1 being strongly in agreement with each statement and 5 being strongly opposed. In order to ensure accurate responses, the questions were concise, clear, and simple to understand.

3.4 Model Specification

To test the effect of the relationship between the independent variable Women participation in trade on the dependent variables employment generation (EG) and Poverty (PR) in Jos Metropolis, this thesis follows the works of Asen (2016) and Okpachu (2018) and the model is specified as follows:

$$PR = f(WP \text{ in } TR) \dots\dots\dots (3.1)$$

$$\text{Where: WP in TR is defined as. WP in TR} = f(EG, IG, FS) \dots\dots\dots (3.2)$$

$$PR = \alpha_0 + \alpha_1 EG + \alpha_2 IG + \alpha_3 FS + Ut \dots\dots\dots (3.3)$$

$\alpha_0, \alpha_1, \alpha_2, \alpha_3$ are the parameter to be estimated and the Ut is the error term.

Where,

WP = Women Participation

TR = Trade

PR = Poverty Reduction

EG = Employment Generation

IG = Income Generation

FS = Food Supply

$\alpha_0, \alpha_1, \alpha_2, \alpha_3$ are the parameter to be estimated and the Ut is the error term.

Incorporating the moderating factors (Economic Factors and Non – Economic Factors)

Where

$$\text{Economic Factors (EF)} = f(AA, MO, SP) \dots\dots\dots (3.4)$$

$$\text{Non – Economic Factors (NEF)} = f(GRI, GS, CPB, SPCSE, SE, OGRC) \dots\dots\dots (3.5)$$

The variables are defined below

EF = Economic Factors

Non – Economic Factors

GRI = Gender Roles and Interaction

AA = Access to Assets

GS = Gender Socialization

CPB = Cultural Practice and Beliefs

MO = Market Opportunities

SPI = Supportive Policies and Institution

SCPSE = Self Confidence, Patience and Self-efficiency

SE = Skills and Education

OGRC = Overcoming Gender Related Challenges

Incorporating the Economic Factors

$$PR = f(EG, IG, FS, AA, MO, SPI) \dots\dots\dots (3.6)$$

$$PR = \alpha_0 + \alpha_1 EG + \alpha_2 IG + \alpha_3 FS + \alpha_4 AA + \alpha_5 MO + \alpha_6 SPI + U_t \dots\dots\dots (3.7)$$

Incorporating the Non - Economic Factors

$$PR = f(EG, IG, FS, GRI, GS, CPB, SCPSE, SE, OGRC) \dots\dots\dots (3.8)$$

$$PR = \alpha_0 + \alpha_1 EG + \alpha_2 IG + \alpha_3 FS + \alpha_4 GRI + \alpha_5 GS + \alpha_6 CPB + \alpha_7 SCPSE + \alpha_8 SE + \alpha_9 OGRC + U_t \dots\dots\dots (3.9)$$

Therefore, the relationship can be captured in its functional form as;

$$PR = f(EG, IG, FS, GRI, GS, CPB, AA, MO, SPI, SCPSE, SE, OGRC) \dots\dots\dots (3.10)$$

Econometrically, equation 3.10 can be expressed;

$$PR = \alpha_0 + \alpha_1 EG + \alpha_2 IG + \alpha_3 FS + \alpha_4 GRI + \alpha_5 GS + \alpha_6 CPB + \alpha_7 AA + \alpha_8 MO + \alpha_9 SPI + \alpha_{10} SCPSE + \alpha_{11} SE + \alpha_{12} OGRC + U_t \dots\dots\dots (3.11)$$

Where $\alpha_1, \dots, \alpha_{12}$ is the parameter to be estimated while

U_t is the error term

Therefore equation (3.11) is the baseline equation to be estimated

In order to examine the effect of Women participate in Trades on Employment Generation and Poverty Reduction in Jos Metropolis which is the first objective of this study, the research model the equation as follows;

$$PR = f(EG, EF, NEF) \dots\dots\dots (3.12)$$

$$PR = f(EG+AA+MO+SPI+GRI+GS+CP+ SCPSE+SE+ OGRC) \dots\dots\dots (3.13)$$

$$PR = \alpha_0 + \alpha_1 EG + \alpha_2 AA + \alpha_3 MO + \alpha_4 SPI + \alpha_5 GRI + \alpha_6 GS + \alpha_7 CPB + \alpha_8 SCPSE + \alpha_9 SE + \alpha_{10} OGRC + U_t \dots\dots\dots (3.14)$$

Equation (3.14) is the model to be estimated.

IV. Data Analysis and presentation

4.1 Response rate

Out of the 333 questionnaires that were administered on the respondents, only 291 were properly filled and returned. This represent 87.3% retrieval rate as presented in Table 1 The retrieved questionnaires were properly coded in statistical package for Social Sciences (SPSS v. 29). The data were properly cleaned before analysis, while simple linear regression was used to test the hypothesis one for the study and results were sufficiently discussed.

Table 1: Questionnaire Response Rate

Questionnaire Distribution	Frequency	Percentage
Questionnaire Administered	291	100
Lost Questionnaire	Nil	Nil
Not Retrieve	42	12.6
Retrieved	291	87.3
Usable Questionnaire	291	87.3%

Source: Field Survey, 2024

Table 2: Descriptive Statistics

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for mean		Min.	Max.
					Lower Bound	Upper Bound		
Trading	291	13.84	3.72	.04306	3.4458	5.8150	1.00	5.00
Poverty reduction		15.21	4.69					

Source: Researcher (2024)

From the descriptive statistics, table 2, the measure of respondents showed that trading had a mean score of 13.84 to influence poverty reduction at 15.21. This in turn implied that the items had 13.8% influence in reducing poverty.

4.2 Diagnostics/ Test of Assumptions

Assessment of the variables levels of skewness and kurtosis is one of the methods employed to determine normality. The Kolmogorov-Smirnov test is used to test the null hypothesis that a set of data comes from a normal distribution. Based on normality test the study employ Kolmogorov Smirnov test, since it produces test statistics that are used (along with a degree of freedom parameter) to test for normality and its association to the normal distribution.

Normality Test
Table 3: Kolmogorov-Smirnov Test

Variable	P-value
Trading	2.102
Poverty reduction	3.510

Source: SPSS v. 29

Table 3 Kolmogorov-Smirnov test (K-S Test) revealed that the P-value of trading is 2.102 while poverty reduction is 3.510, meaning that the variables are all greater than significance level or margin of error of .05. Therefore, the data is normally distributed. According to Momeni, Gildeh, & Hesamian (2017), pointed out that Kolmogorov-Smirnov rule states that the critical value of D is found from the K-S table values for one sample test. Acceptance Criteria: If calculated value is less than critical value accepts null hypothesis. Rejection Criteria: If calculated value is greater than table value reject null hypothesis.

4.3 Multicollinearity Test

In this study multicollinearity was ascertain which was used to find out the relationship between the independent variables (trading) as conceptualized in the framework. If there is a high degree of correlation between independent variables, the study has a problem of what is commonly described as the problem of multicollinearity. The study checks this with the Variance Inflation Factor (VIF) which calculates the influence of correlations among independent variables on the precision of regression estimates. The VIF factor should not exceed 10, and should ideally be close to one, the table below shows that, there is no existence of multicollinearity. Tolerance is an indicator of how much of the variability of the specified independent variable is not explained by the other independent variables in the model and is calculated using the formula $1-R^2$ for each variable. If this value is very small (less than 0.10), it indicates that the multiple correlation with other variables is high, suggesting the possibility of multicollinearity. This also confirms the absence of multicollinearity according to Collinearity Statistics table 4 below.

Table 4: Collinearity statistics

	Collinearity statistics	
	Tolerance	VIF
Trading	.767	1.152

Notes: ***Significant at 1% level, * Significant at 10% level

Source: Researcher (2024)

4.4 Test of Hypotheses

The main reason for using simple linear regression in this session is to test the proficiency of two things, the first is to check if a set of independent variables predicts the dependent variable. In this study, women participation in trading and employment generation as the independent variables and poverty reduction as the dependent variable. From the results of the simple regression shown in each of the tables below, the researcher developed regression equations or objective one hypothesis one and a model equation 3.1 model. As such, by using a fitted model the result from the equation captured values for the constant and the standardized regression coefficient as displayed in the table below;

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig.
1	.114 ^a	.013	.009	4.66788	.079

Table 6: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	68.033	1	68.033	3.122	.079 ^b
	Residual	5207.564	290	21.789		
	Total	5275.627	291			

Table 7: Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.185	1.159		14.827	.000
	Trading	-.143	.081	-.114	-1.767	.079

a. Dependent Variable: poverty reduction

b. Predictors: (Constant), trading and employments generation

Table 5 present the results from the model summary table which showed that R-square is .013 indicating that trading among women reduces poverty in 1.3%. The remaining 98.7% means there are other factors that can be attributed to poverty. The linear regression F statistics shown in the Table 6 shows that there is no statistical and significant effect of trading and employment generation on poverty reduction ($F = 3.122$, $p < .079$). This means, the probability of those results occurs by chance is < 0.079 . And it can be concluded as the overall regression model is not significant ($1, 240) = 3.122$, $P < 0.079$, (that is the regression model is a good to fit the data). The coefficients table 7 indicated the outcome from simple regression analysis that was performed in order to evaluate the single effect of trading and employment generation on poverty reduction, meaning when other factors are held constant, an improvement in the trading by 1%, reduces poverty by 1.9%. The result found that trading has insignificant effect in reducing poverty. Therefore, the result indicates that trading and employment generation does not have significant effect in reducing poverty. Hence, the null hypothesis was supported and thus the study concluded that trading does not have significant effect in reducing poverty. The model adopted to test the hypothesis had 291 observations for the variables used in the study that is women participation in trading and employment generation and poverty reduction. The model 1 is stated below;

$$PR = f(WP \text{ in } TR) \dots\dots\dots (3.1)$$

$$\text{Where: } WP \text{ in } TR \text{ is defined as. } WP \text{ in } TR = f(EG, IG, FS) \dots\dots\dots (3.2)$$

$$PR = \alpha_0 + \alpha_1 EG + \alpha_2 IG + \alpha_3 FS + Ut \dots\dots\dots (3.3)$$

$\alpha_0, \alpha_1, \alpha_2, \alpha_3$ are the parameter to be estimated and the Ut is the error term.

Where,

WP = Women Participation

TR = Trade

PR = Poverty Reduction

EG = Employment Generation

IG = Income Generation

FS = Food Supply

$\alpha_0, \alpha_1, \alpha_2, \alpha_3$ are the parameter to be estimated and the Ut is the error term.

The study sought to test the null hypotheses which states that women participation in trade and employment generation does not have any significant impact on poverty reduction. Based on the model, the study established that women participation in trading and employment generation showed a none significant impact on poverty reduction.

In the fitted model intercept term ($\beta = -.143$; $t\text{-value} = -1.768$; $P\text{-value} = 0.079$) gives the level of poverty when explanatory variables are held constant at zero the coefficient ($\beta = -.143$) was negative meaning that trading and employment generation is not associated with falling poverty reduction. Meaning that women participation in trade and employment generation had negative impact on poverty reduction. Based on the result it can be deduced that women participation in trade and employment generation does not have significant effects on poverty reduction in Jos Metropolis as shown in table 8. The finding was supported by the study conducted by Shuaibu & Ohams (2024), which shows negative existence of a co-integrating association among unemployment, trade openness, gender gaps, and the other independent variables on poverty reduction in the long-term analysis, and indicated negative coefficient of trade openness which was statistically insignificant in the short run.

The result was not in support with the study conducted by Sarker et al. (2021), which study found that women's empowerment has a significant impact on the reduction of income poverty and multidimensional poverty in the society, even though gender violence, taking resources against women's will, and preventing women from working outside have caused a significant decline in per capita income and an increase in income poverty and multidimensional poverty. This negative relationship, might be due to the nature and the level women engaged in trade and other factors stated in the model specification.

Table 8: Results

Variable	Relationship	Std.(β)	Std. Error	T-value	P-value	Sig.
Trading	GP in TR \rightarrow PORD	-.143	.081	-1.767	0.079	
Constant		17.185	1.159	14.827	0.000	

Source: SPSS output version 29

V. Conclusion and Recommendations

Based on the findings on the relationship between women participation in trade and employment generation on poverty reduction in Jos Metropolis, Plateau State, Nigeria. The study concluded that trading and employment generation has no statistically significant impact on poverty reduction. The coefficient of women participation in trade and employment generation had negative impact on poverty reduction, meaning that participation in women participation in trade and employment generation does not reduce in Jos Metropolis. The study recommend that trading is an avenue for curbing poverty, women should engage in a meaningful trading activity since it has a way of reducing poverty and Government, Non - Governmental Agencies and Financial institutions should formulate policy that are effective and capable of boosting trading among women since it will reduce poverty level among women in Jos metropolis of Plateau State.

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