



EFFECTS OF WOMEN'S PARTICIPATION IN SERVICES ON HOUSEHOLD POVERTY REDUCTION IN JOS METROPOLIS

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Abstract

This study investigates the impact of women's participation in the service sector on household poverty reduction within the Jos Metropolis, Plateau State, Nigeria. Utilising a descriptive research design and a sample of 333 women (selected using the Taro Yamane formula), the researchers analysed primary data collected via structured questionnaires using a Generalised Linear Model (GLM). The findings reveal that income generation (IG) through services has a negative and statistically significant relationship with poverty; specifically, a unit change in income generation through service participation triggers a 49 per cent decrease in poverty. The analysis further indicates that Access to Credit (ACR), Market Access (MO), and Supportive Policies and Institutions (SPI) are significant factors that contribute to poverty reduction. Conversely, the study found that large family sizes (FMS) significantly increase poverty, while inadequate security and infrastructure (SIF) hinder effective participation. The study concludes that the service sector is a vital avenue for curbing household poverty, as it generates income that women use to settle essential family bills and improve living standards. It recommends that policymakers formulate and implement consistent supportive policies and institutions to dismantle socio-economic barriers, provide direct access to competitive markets, and empower women economically to build household resilience.

Keywords: Women's participation, Services, Income Generation, Poverty Reduction, Jos Metropolis

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1. 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 household 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%). 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 low representation 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, but the poverty rate has been rising for more than 20 years, with different 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 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.

The situation is not different in developing countries. For instance, 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 income generation, improved education, and enhanced health (World Economic Forum, 2023).

Women in Jos are active in rendering services 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 income generation. Women's participation in services in Jos Metropolis is vital for addressing these challenges. By engaging in micro, small- and medium-scale services 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 income generation and household poverty reduction, is essential for designing effective interventions that promote inclusive development.

This study aims to explore the impact of women's participation in services on income generation and household 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 the demand of household poverty reduction, through income generation, food supply

and formulate policies and programmes that are tailored towards empowering women economically in Jos metropolis, Plateau State, and the nation as a whole.

2. Literature Review

2.1 Conceptual Clarification

2.1.1 Women's 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 organisations. 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 recognises 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's participation in services refers to the involvement and representation of women in the ownership, management and operation of businesses (Intangible activities)

2.1.2 Concept of Services

Service is an intangible economic activity presented by one person to another, it usually involves a performance, an act, or an experience. Services address specific needs or a particular issue and it is characterized by intangibility, inseparability, perishability, heterogeneity and lack of ownership. Services can be classified into customer services, commercial services and public sector services. According to Vikas (2025) service is any intangible activity, process, or benefit that fulfills a need without requiring the ownership of a physical item. It is typically produced and consumed simultaneously and often requires direct interaction between the provider and the consumer. While Oboloo (2022) agreed with this definition, he went further to state that, services are often complex and involved multiple steps to

complete and usually require skills or knowledge to perform.

The service sector is the sector of the economy that produces and offers services. There are three major economic sectors primary, secondary, and tertiary. It is the part of the economy that provides various services, as opposed to providing tangible goods such as cars and televisions. Service sector is a part of the economy where businesses provide intangible services instead of physical products. It involves various economic activities performed to fulfil the specific needs of the customer. Examples include, healthcare, banking, education, and dining out. Unlike sectors that deal with making things or extracting raw materials, the service sector is more about interactions and assistance. It is also known as the tertiary sector. The rapid growth of service-related industries has been fuelled by increases in knowledge and data, and rapid technological advances especially, improvements in communication. Crevani et al. 2011 & The World Bank 2021 opined that, the service sector which accounts for two-thirds of global employment and GDP consists of approximately 60% women workers. On the other hand, (Kumra and Vinnicombe 2008; Kahn and Ginther 2017; Schultz and Masengu 2020).) Asserted that with trends showing increases in the number of women entering professional services, women are under-represented in certain service sectors such as engineering and technology services and law. Other researchers like (Hoyt and Murphy 2016; Broadbridge 2010) also noted that women remain a minority in management positions with a majority of women facing obstacles to secure management positions. Significantly, men on the executive boards of service firms can outnumber women by as much as a ratio of 8:1 and the representation of women on the boards of Financial Times Stock Exchange (FTSE) service sector companies is lower at about 24.3%.

2.1.3 Poverty

The word poverty comes from old French *povreté* (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 nation,

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 (Tesfaye, 2014). Poverty is usually measured as either absolute or relative:

Absolute poverty 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 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 Theoretical Review

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 provide a framework that explains 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.

2.3 Empirical Review

Oduor and Maina (2021) carried out a cross-sectional study entitled "Trends in Women's Political Representation in Kenya." In order to investigate the patterns in women's involvement in politics, the researchers examined data on political representation using content analysis. The study revealed that while women's representation in politics has increased over time, it also emphasized the ongoing gender gaps and obstacles that prevent women from achieving positions of political leadership. The study recognized the need for ongoing efforts to promote gender equality in political decision-making as well as the limitations of potential biases in data collection.

Adegoke and 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.

In their study, Sarker, Zukiewicz-Sobczak, Alam, Rabbany, Hossain, and 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 roadmap 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

Osemene Salman, and Kolawole. (2017) conducted a study in Kwara state, Nigeria, on the role that SME plays in easing and reducing poverty. They administered a questionnaire to 100 SMEs as a sample using primary data. To shed light on the contribution of income generated by SME owners to the reduction of poverty in Nigeria, they used probit regression. The regression analysis's findings demonstrated that the income generated by SME owners had a significant impact on reducing poverty in the Nigerian state of Kwara. They noted that SME development and economic growth are the engines driving poverty reduction in many nations across the world. Although they are responsible for over 95% of productive activities, they make up less than 10% of Nigeria's GDP. The country's unemployment rate and poverty rate are still high. As a result, the study advised SMEs' owners to keep and pursue adequate funding at a reduced interest rate to ensure the smooth operation of their companies.

A methodical analysis to assess the chances and difficulties faced by female business owners over the previous eighteen years (2005 - 2019). Despite being viewed as inferiors in all industries, women in Saudi Arabia have improved their business image, according to (Abou-Moghli & Al-Abdallah 2019). This is a crucial aspect of business success. After adhering to a strict research protocol, the study was able to identify and investigate related studies, yielding 96 articles from the chosen database and search engines 22 of which directly addressed the

topic under investigation. The analysis showed that women's participation in the region is influenced by cultural, social, and financial factors. It also found that women's propensity for valuing client satisfaction contributes to the distinctive ways in which they grow their businesses. To reach the required success threshold in Saudi Arabia's entrepreneurial world, women need to be given support and training at the institutional and societal levels. A more accurate assessment of women's participation in MSMEs could be obtained by employing a thorough methodology.

Using a mixed method approach and both quantitative and qualitative data, Kataro and Ramakrishna (2020) examined the role of local government in supporting MSMEs' performance. Primary and secondary sources provided data for the research. Using a stratified sampling design, the sample population was found. Of the 541 samples found, 22 business owners and managers were specifically chosen to serve as the target sample for key informant interviews. The data is analyzed in the study using descriptive statistics, narrative analysis, and document analysis. The results demonstrated that insufficient local government support is the cause of MSMEs' low levels of employment and capital generation. According to the study, local government organizations should foster a business-friendly environment to draw in more capital, enhance the performance of already-existing businesses, and boost the region's economic growth by generating jobs to lessen the strain that larger cities bear from housing the region's rapidly growing population.

According to Unanam (2020), women in our society encounter many obstacles and difficulties as a result of their disadvantageous status. The researcher observed that women's development is still constrained by the dominant social order, despite efforts made by development partners and collaborators to empower women. The study concentrated on how social inequality leads to systemic discrimination against women. It also examined how the Development Exchange Centre (DEC) has intervened to support women's economic empowerment and the implications this has for development. The research methodology of the study comprised semi-structured interviews and focus

groups, with a stratified sample technique. The study's conclusions indicated that women in Plateau State are disproportionately affected by poverty; moreover, the study stressed the need for women to have more economic empowerment because it enhances their quality of life. Additionally, the research suggested that more women-led Non-Governmental Organizations (NGOs) be established in order to involve women in economic activities that advance their self-development.

According to Obodoechi et al (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.

Lemessa and Haile (2021) asserted that, micro and small enterprises (MSEs) are important for providing the impoverished with sources of income and employment opportunities. They stress that low economic growth, fast population growth, high unemployment rates, and poverty are typical occurrences in developing nations. The research makes use of a logistic regression model to examine secondary data and identify the variables affecting poverty in a particular town. A collection of socioeconomic and demographic variables serves as the explanatory variables in this study, with the

probability of participation serving as the dependent variable. The researchers emphasize that the concept of poverty has many dimensions and facets. Although MSEs in developing nations collaborate closely with the impoverished to combat poverty, the outcomes have not been up to par. The Ethiopian government, which focuses support primarily on women and youth, acknowledges the significance of MSEs for growth and development. The researchers' recommendations to combat poverty are based on their findings, and they centre on improving access to various forms of education, credit, extension services, savings, and cooperation between government agricultural offices and non-governmental organizations.

3. Methodology

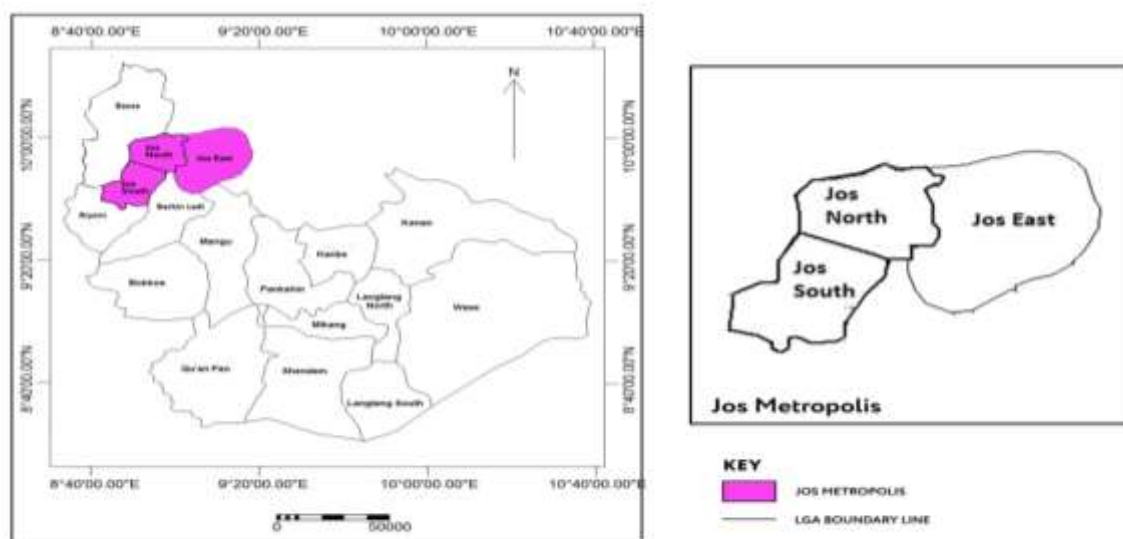
The research design adopted for this study is survey design and the inverse Gaussian generalized linear model (GLM). This design involves the systematic process of planning and constructing a questionnaire or interview protocol to collect data from a sample of individuals. It involves defining objectives, selecting a sample frame, choosing a mode of administration, writing and ordering questions and pre-testing the instrument (Babbie, 2020). This research design is based on several advantages it offers. First, the design allows for a standardization (consistent questions which allow for data comparison across respondents) Efficiency (Make ease and quick the collection of large information) Generalization (It helps design support inferences about broader populations and proper sampling) Flexibility (It captures attitudes, behaviours and demographic details in a single instrument). The choice of this design is to enables the researcher get information directly from the target population which is women participating in MSME and household poverty reduction in Jos Metropolis which also enhances the validity and reliability of the study. Moreover, it allows for the identification of potential strategies and interventions to enhance women's participation in MSMEs and reduce household poverty in the region. Overall, the survey design is well-suited for this study as it provides a comprehensive, valid, and practical approach to investigating women's participation in MSMEs and

household poverty reduction Jos Metropolis, Plateau State, Nigeria.

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).



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

Figure 1: Showing the Map of Plateau State it's Local Government and Jos Metropolis

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

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

Where:

n = Sample size

N = Population size

1 = Constant

e = Margin of error (5%) = 0.05

substituting into the formular which is equation 1 to get the sample size,

$$n = \frac{2000}{1 + 2000(0.05)^2}$$

$$n = \frac{2000}{1 + 5}$$

$$n = \frac{2000}{6}$$

$$n = 333.3333$$

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

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 services that women participate in, 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 three hundred and thirty-three (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 services in Jos Metropolis.

4. Results and Discussion

4.1 Descriptive Statistics

4.1.1 Socioeconomic Characteristics of the Respondents

This section presents the analysis of responses with respect to the socioeconomic characteristics of respondents. The analysed variables were gender, age, marital status, family size, level of education, nature of business, duration of business, and the type of enterprise. The results of these socioeconomic characteristics of the respondents were presented in Table 1.

Table 1: Socioeconomic Characteristics of Respondents

Gender	Frequency	Percent	Cumulative
Male	123	51.0	51.0
Female	117	48.5	48.5
Age			
21-30years	64	26.6	26.6
31-40years	74	30.7	57.3
41-50years	97	40.2	97.5
51years and above	6	2.5	100.0
Marital Status			
Single	75	31.1	31.1
Married	84	34.9	66.0
Widowed	63	26.1	92.1
Divorced	19	7.9	100.0
Family Size			
<3	64	26.6	26.6
4-6	113	46.9	73.4
7and above	64	26.6	100.0
Level of Education			
No Education	21	8.7	8.7

Primary	39	16.2	24.9
Secondary	38	15.8	40.7
ND/NCE	45	18.7	59.3
HND/First Degree	54	22.4	81.7
Masters	44	18.3	100.0
Nature of Business			
Micro	109	45.2	45.2
Small	71	29.5	74.7
Medium	60	24.9	99.6
Others	1	.4	100.0
Duration of Business			
10years	97	40.2	40.2
11-20years	80	33.2	73.4
21-30years	60	24.9	98.3
31-40years	4	1.7	100.0
Type of Business			
Trade	87	36	36
Services	72	31	67
Agriculture	49	20.6	87.6
Others	29	12.4	100

Source: Author's Computation, 2025.

In order to evaluate the effects of women participation in services on household poverty reduction within the Jos metropolis, poverty reduction was regressed on

women participation in services. Table 2 presents the summary of the (inverse Gaussian) GLM estimation

Table 2: The (inverse Gaussian) GLM Estimate on the Effects of Women's Participation in Services on Household Poverty Reduction in Jos Metropolis

OIM						
Variable	Coefficient	Std. err.	z	P> z	[95% conf. interval]	
service	1.750943	.2146283	8.16	0.000	1.330279	2.171608
ACR	.5604258	.1267864	4.42	0.000	.311929	.8089226
MO	-2.952456	.447881	-6.59	0.000	-3.830287	-2.074625
SPI	3.002945	.4363954	6.88	0.000	2.147625	3.858264
SIF	-1.790537	.1943617	-9.21	0.000	-2.171479	-1.409595
FMS	.1609594	.0939030	1.71	0.087	-.0230882	.345007

EDU	-.0771436	.0547963	-1.41	0.159	-.1845423	.0302551
TBS	-.0133113	.0139436	0.95	0.340	-.0406402	.0140177
_cons	1.682334	.7920386	2.12	0.034	.1299665	3.234701
Var(e.povr)	.1665652	.0115374			.14532	.1909164

Source: Author's computation 2026

The Generalized Linear Model (inverse Gaussian) (GLM) result in Table 2 showed services with a positive coefficient of 1.750 units, which is statistically significant as indicated by the p-value (0.000). This means that a unit increase in women's participation in services in the Jos Metropolis will trigger a 1.750 decrease in poverty. The coefficient of access to credit (ACR) is positive at 0.560, with a p-value of 0.000. This implies that ACR is positively related to poverty reduction in the study area; that is, when women have access to credit facilities, it will enhance their participation in service MSMEs and reduce poverty among them by 0.560 units, and the impact is significant. Market Access (MO) also affects poverty reduction in the study area, with a coefficient of -2.952 and a p-value of 0.000, implying that a unit increase in women access to market will lead to a significant 2,952 reduction in poverty among women in the study area. This indicates that, market access opens up business opportunities to women and increase their participation in providing services and capacity to meet the household needs. This implies that, when women can access a broader, more competitive market to sell their goods and services directly to a wider customer base, it will lead to higher and more stable income than they would earn through intermediaries. By connecting directly with buyers, women can better gauge market demand, negotiate fairer prices, and potentially eliminate unnecessary intermediaries, thereby increasing their profit margins and improving their living conditions. The coefficient of supportive policies and institutions (SPI) has a positive and significant (3.002, $p > 0.000$) value. This means that a unit increase in SPI will decrease poverty among women in the study area by 3.002; the effect is statistically significant. This implies that SPI, plays a crucial role in poverty reduction among women by empowering them economically and legally, thereby addressing the

causes of disproportionate poverty and providing a level playing field that dismantles barriers and builds resilience.

However, the control variable security and infrastructure (SIF) is negative and significant with the coefficient of -1.790, p-value 0.000 showing that adequate provision of SIF will enhance women's participation in service provision. Family Size (FMS) has an estimated positive coefficient of 0.160, and its p-value is at 0.087 which is a significant impact on poverty reduction. While Educational Attainment (EDU) and Type of Business (TBS) have a negative estimated coefficient value of -0.077, p-value 0.159. and -0.0133113, a p-value of 0.340 respectively showing insignificant impact on poverty reduction. The intercept of the regression analysis model is 1.682334, which is highly significant with a p-value of 0.034. Meaning that the model as a whole is statistically significant, and has a significant impact on women's participation in services and poverty reduction.

4.2 Discussion of Findings

4.2.1 Effects of Women Participation in Services on Poverty Reduction in Jos Metropolis

The null hypothesis was rejected based on the constant (1.6802334, $p=0.000$) which demonstrated a considerable influence of service engagement on household poverty reduction in the model. Access to Credit (ACR) showed 56% reduction in poverty with the coefficient of 0.5604258, p-value 0.000 which is statistically significant. Market Access (MO) showed a negative coefficient and significant result (-2.952456, p-value 0.000) suggesting a decrease in household poverty. The coefficient for supportive policies and institution (SPI) is high with 3.002945, p-value 0.000 which is statistically significant. Implying that targeted policies that are directed to specific barriers that limit women participation in

MSMEs increase their participation and close poverty gap. The control variable Security and Infrastructure (SIF) is negatively related with the coefficient of -1.790537 and a statistically significant p-value 0.000. Family Size (FMS) has a significant (p-value 0.087) and a positive coefficient of (0.1609594) indicating that an increase in FMS leads to an increase in poverty. While Education (EDU) and Type of Business showed an insignificant (p-value 0.159) and (p-value 0.340) and a negative coefficient of (-0.0771436) and (0-0.0133113) respectively, the model intercept is statistically significant with a coefficient (1.682334, p-value 0.034). Indicating that the whole model is statistically significant. These findings are consistent with those of Sarker et al. (2021), who discovered that women's empowerment considerably lowers multidimensional poverty, and Obodoechi et al. (2022), who emphasised the beneficial impact of financial inclusion on women-owned companies. The most powerful factor in this case is Access to Credit. This implies that the main means of reducing poverty is the quick cash flow from service-related MSMEs (such as caterers or hair salons).

The Classical Theory of MSMEs on how MSMEs have a positive impact on the fight against poverty through employment and income generation is related to this objective. Services is an aspect of MSMEs which has significant effect on poverty reduction in the study area, with supportive policies and institution their participation can be enhanced. The theory asserted that small businesses in developed nations are really what drive economic growth and poverty reduction. On the side of the modern theory of MSMEs, pioneered by Piore and Sabel (1984), The core of the flexible specialization proposition regarding MSMEs is centred on the argument that MSMEs growth can compete favourably and even outdo Large Enterprises in certain sectors of the economy, the result of the study emphasis the need for supportive polices and institution.

5. Conclusion and Recommendations

Based on the findings of the study on women participation in services and poverty reduction in Jos Metropolis, Plateau State, Nigeria. Services has a statistically significant impact on poverty reduction. The positive relationship that exists between women participation in services and poverty reduction therefore suggest that, when women participate in services, they generate income for themselves and their families which helps in improving their living standard and reduce poverty among them. Hence, women should be encouraged to engage in a meaningful service activity.

The study also suggests that, since women make up a large portion of the nation's active population, the government at all should adopt a practical strategy that will lift women from marginalization and frame a social structure that could result in regular policy evaluation, avoid contradictions in its policy, and formulate policies that will encourage them and broaden their access to more competitive market to enable them sell their goods and services directly to wider customer base. This will widen their opportunity to participate or collaborate with their female counterparts and will enhance their welfare, increase participation, enable them earn more income, improve their living conditions and reduce poverty among women in Jos metropolis. Help them socialized and reduce gender norms which prioritize women's household and reproductive duties above economic engagement and will considerably increases their prospects of escaping poverty.

Policy implementation is one of the challenges that has slowed the activities of almost all the sectors in Nigeria, especially the MSMEs. Therefore, policy formulation, evaluation, and consistency are important in accelerating the activities of MSEs and SMEs among women in Jos metropolis of Plateau State.

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