The Role of Women Education and Empowerment on Sustainable Community Development in Northeastern Nigeria

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Abstract

Women's education and empowerment are widely recognized as critical drivers of socio-economic development and sustainable community progress globally. This study investigates the role of women's education and empowerment in promoting sustainable community development in Northeastern Nigeria. Using a quantitative cross-sectional design, data were collected from 384 women across selected rural and urban communities through a structured questionnaire. Key variables measured include years of schooling, empowerment index, socio-cultural barriers, household size, and participation in community development activities. The study employs Negative Binomial Regression to model women's participation in development initiatives, accounting for over-dispersion in count data. Correlation analysis reveals a significant positive relationship between women's empowerment and community participation. Regression results demonstrate that both education and empowerment significantly increase women's engagement in sustainable community development, whereas socio-cultural barriers and larger household size negatively affect participation. Age was not a significant predictor. The findings underscore that enhancing women's access to education, expanding empowerment programs, and addressing cultural and household-level constraints are vital for inclusive and sustainable community development.

Keywords: Women's Education, Women's Empowerment, Sustainable Community Development, Northeastern Nigeria, Negative Binomial Regression

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Background to the Study

Globally, women's empowerment has been a focal point since the 1970s, with many organizations establishing credit and savings programs to bolster women's income and address gender inequalities (Cheston & Kuhn, 2002). The United Nations Millennium Campaign, aimed at reducing global poverty by 2015, highlighted that women perform two-thirds of the world's work, particularly in food production, child-rearing, and household management, yet receive minimal recognition or compensation for these efforts (United Nations, 2015). Women have historically been central to socio-economic and rural development in Nigeria, managing significant portions of the "non-monetary" economy through subsistence farming, child-rearing, and domestic labour (Onu, 1998). In pre-colonial times, community development relied on collective, communal labour for infrastructure and essential services (Adeyemo, 2008), while the colonial period introduced formal self-help projects and mass mobilization (Osuntokun, 2019). Despite these efforts, rural communities continue to face challenges in accessing basic needs such as clean water, healthcare, and education (National Planning Commission, 2021). Women are responsible for up to 70% of Nigeria's food production and play key roles in agroforestry, food security, and household agricultural activities, reflecting trends observed in other developing regions (World Bank, 1993; FAO, 2018, 2019).

Women in Northeastern Nigeria face systemic exclusion from social, economic, religious, and political activities, limiting their contributions to community development. Despite increasing educational attainment, many women lack awareness of their rights and empowerment opportunities (UN Women, 2021). Patriarchal household structures restrict women's decision-making, and those who assume leadership roles often face opposition from male relatives, undermining their authority (Ojwang, 2020; Oladosu & Olusanya, 2019). Financial dependence on male relatives further constrains women's ability to fund and sustain development initiatives, particularly in rural areas (Akpan, 2020).

Rural development policies in Nigeria, particularly during the Third National Development Plan (1975–1980), aimed to enhance productivity and service delivery through grassroots participation, including the creation of local government areas (Eboh, 2019). However, their impact has been limited, with rural communities still facing poverty and inadequate infrastructure (Okafor, 2021). Women in Northeastern Nigeria, despite their critical role in agriculture and community development, face significant barriers—such as gender discrimination, restricted access to resources, and exclusion from male-dominated leadership structures which limit their participation in decision-making. Patriarchal norms further constrain women's autonomy, especially in rural areas. Nonetheless, initiatives including women's groups and leadership training programs have emerged to empower women, promote their involvement in politics, business, and community development, and build their leadership capacities (Nwajiuba, 2020).

Despite extensive research on women's education and empowerment in relation to community development in other regions of Nigeria and internationally, to the best of the researcher's knowledge no study has focused specifically on Northeastern Nigeria, and non, have applied advanced statistical models such as negative binomial regression to empirically examine the

relationship between women's education, empowerment, and sustainable community development in this region. This study addresses this gap by investigating the role of women's education and empowerment in promoting sustainable community development in Northeastern Nigeria, with the specific objective of quantifying the influence of these factors on community development outcomes using negative binomial regression. The paper is structured into five sections: Section One introduces the study, presents the problem statement, research objectives, and significance; Section Two reviews relevant literature on women's education, empowerment, and community development; Section Three details the methodology, including study area, data sources, sampling, and the negative binomial regression approach; Section Four presents and discusses the empirical results; and Section Five concludes the study with policy implications, recommendations, and areas for future research.

Literature Review
Overview of Women in Community Development in Northern Nigeria
Women's involvement in community development is a pivotal subject, particularly in northeastern Nigeria, where gender inequalities and cultural practices often limit women's participation in social, economic, political, and religious spheres. The level of development among women in northeastern Nigeria has been constrained by a history of marginalization, lack of educational opportunities, and cultural norms that discourage women's active participation in the public and political domains. This literature review examines the challenges faced by women in northern Nigeria, the evolving role of women in community development, and the significance of government and organizational interventions aimed at empowering women.

Education is one of the fundamental tools for advancing women's involvement in community development. In northeastern Nigeria, girls' education has long been undervalued due to socio-cultural beliefs that prioritize male education. This was particularly evident in rural areas, where the preference for educating male children stemmed from limited family resources and the belief that girls would eventually be married off (Blench, 2020). Historically, many families did not see the value in educating girls, considering them less likely to contribute to family income or community development. However, recent trends indicate a shift in this mindset as more families in northern Nigeria recognize the importance of educating women to reduce poverty and stimulate regional development (UNICEF, 2021). Despite these positive changes, in some parts of northeastern Nigeria, such practices still persist, particularly in remote or conservative communities (Fawole & Adebowale, 2019).

The empowerment of women is also central to the development discourse in northeastern Nigeria. Women's empowerment is often framed as a key strategy for achieving both economic growth and social equity. Karl Marx's theory of structural transformation highlights the importance of shifting away from traditional development models that exclude women, suggesting that inclusive development policies must prioritize gender equality and ensure that women are fully integrated into the decision-making processes at all levels (Marx, 1995). The feminist perspective, as noted by Young (1995), emphasizes the importance of women's

participation not only in economic activities but also in the political and policy-making processes. Empowerment, therefore, is not just about enhancing women's economic independence but also about transforming societal structures to promote gender equality and social justice.

Women's empowerment in northern Nigeria has been supported through economic interventions such as microfinance, skills training, and income-generating programs, which have improved women's financial independence but often fail to address structural barriers like limited access to land and property rights (Okonkwo, 2021). Integrated rural development programs focusing on education, healthcare, and social services have further enhanced women's participation in community development and improved overall living conditions, especially in underserved rural areas (Dike, 2019). Grassroots organizations and NGOs have been central to advocating for women's rights, challenging restrictive social norms, and addressing issues such as child marriage, gender-based violence, and discrimination (UN Women, 2020). However, persistent gender-based violence, often rooted in cultural and religious practices, continues to undermine women's physical, emotional, and social well-being (Amnesty International, 2020). The United Nations Women's Empowerment Framework emphasizes addressing power imbalances, increasing access to resources, and strengthening women's participation in decision-making, and has guided many empowerment initiatives in the region (UN Women, 2021).

Theoretical Review
Liberal Feminism
Liberal feminism is an individualistic form of feminist theory that emphasizes women's capacity to achieve equality through their own actions and choices. It asserts that women should have equal opportunities and rights as men in various domains such as education, the workplace, and politics. Liberal feminists argue that societal norms, rather than inherent biological differences, lead to the subordination of women. They focus on reforming laws and policies to ensure gender equality, advocating for political and legal changes that dismantle discriminatory practices.

Historically, the roots of liberal feminism can be traced to the Seneca Falls Convention of 1848, where the Declaration of Sentiments asserted that "all men and women are created equal." This document, modeled after the U.S. Declaration of Independence, called for women's right to vote, own property, and access education (Lerner, 2021). Liberal feminism remains focused on legal reforms and individual rights, pushing for equality under the law as a means to empower women and eliminate barriers to their full participation in society (Tong, 2022).

Radical Feminism
Radical feminism holds that the root cause of women's oppression is patriarchy, a system of male dominance that permeates all aspects of society. Radical feminists believe that patriarchy is not just a social structure but a fundamental system of power that maintains women's subjugation through both overt and covert means. This includes institutionalized gender

inequality, the sexualization of women, and the devaluation of women's work, particularly in domestic spheres.

The key arguments of radical feminism revolve around two central beliefs: (1) women are as valuable as men, and (2) all women are oppressed by patriarchal systems. Radical feminists view patriarchy as the primary driver of social inequalities and argue that it is reinforced through various social institutions such as marriage, the workplace, and education. The feminist theorist Catharine MacKinnon (1979) highlighted how patriarchy manifests in both subtle and overt forms, such as sexual harassment, the objectification of women, and institutionalized violence. Radical feminists believe that dismantling patriarchy requires not only legal changes but also a radical transformation of society's cultural and social norms.

Radical feminists assert that male domination has a profound impact on the psychological, emotional, and economic well-being of women. This includes the internalization of inferior status and self-worth among women, as well as systemic violence directed at them. The radical feminist focus on patriarchy as the root cause of gender inequality, however, has been critiqued for its narrow focus, often neglecting intersections with other forms of social oppression such as race and class (Hooks, 2021).

Empirical Literature
Empirical studies in the extant literature consistently demonstrate that women's education and empowerment are pivotal for sustainable community development, with variations in methodology, context, and outcomes. In Nigeria, Ogbonnaya and Okechukwu Ann (2021) conducted a descriptive survey of 828 respondents in South-East Nigeria to examine the role of community education in women's participation in community development. The study found that community education enhanced women's socio-economic potential through literacy, capacity building, and agricultural engagement, although inadequate government funding and limited donor support constrained the impact. Similarly, Osirike and Egbayebo (2018) focused on Ilaje in Ondo State using a random sample of 130 women across ten communities. Their results indicated that low participation in development efforts was largely due to limited education and lack of role models, while women with higher educational status were significantly more involved in community development initiatives. Nwanorue and Kobani (2020) conducted an analytical survey of 581 women in Omuma Local Government Area, Rivers State, and reported that adult literacy and skill acquisition programs enhanced women's decision-making, economic status, and capacity to participate in community development.

In Kenya, Madhowe and Kisimbii (2018) employed a descriptive case study design with 392 respondents from a target population of 47,425 in marginalized regions. Their findings revealed that women's empowerment including labor provision, decision-making, asset creation, and peace-building capacities positively influenced the implementation and sustainability of community development projects. In Abia State, Nigeria, Iheukwumere and Obiozor (2024) used a descriptive survey design with 384 women and found that women actively contributed to governance, education, healthcare, environmental conservation, social

services, cultural activities, and leadership roles. The study also reported no significant difference between urban and rural women in perceptions regarding contributions and strategies to enhance participation. Onyema and Princewill (2023) similarly employed a descriptive survey of 176 respondents in Okigwe, Imo State, and found that educational empowerment, skill acquisition, and employment significantly enhanced women's contributions to community development projects.

In Northern Nigeria, Mumuni and Abdulyakeen (2024) conducted a descriptive survey in Daura Local Government Area, Katsina State, applying Liberal Feminism as the theoretical lens. They found that lack of government assistance (41.3%) and cultural constraints (60%) hindered women's participation, but women still contributed financially (60%) and materially (33.3%) to development initiatives. Cross-national evidence from Oman by Amzat et al. (2017) involved female university students from three public universities and used confirmatory factor analysis and path analysis to model empowerment effects. Their results showed that women's empowerment strongly influenced community development, though cultural rigidity, conservative traditions, and family adherence to traditional norms constrained participation.

Methodology
Population of the Study
The study was conducted in Northeastern Nigeria, a region characterized by diverse socio-cultural dynamics and developmental challenges. The target population consisted of women residing in both rural and urban communities across selected states in the region. Since women's participation, education, and empowerment are central to community development, the study focused on adult women who are actively engaged in household and community life.

Sample Size and Sampling Procedure
Given that the actual population of women in the study area is very large and could not be precisely determined, the sample size was derived using Cochran's (1977) formula for infinite populations. This formula is particularly appropriate when the population size is unknown, as it ensures that the sample is large enough to achieve statistical validity. Using a 95% confidence level (Z = 1.96), an assumed proportion (p = 0.5) to maximize variability, and a 5% margin of error, the required sample size was calculated to be approximately 384 women. This sample was distributed across selected communities using a multistage sampling technique, which involved purposive selection of states and local government areas, followed by random selection of communities and respondents.

Instrument of Data Collection
The study employed a structured questionnaire as the main instrument of data collection. The instrument was divided into sections covering socio-demographic characteristics, educational attainment, empowerment indicators, barriers to participation, and actual participation in community development activities. Most variables were measured using standardized coding formats such as binary indicators (Yes = 1, No = 0), ordinal scales (e.g., Likert 1–5 for barriers and attitudes), and counts (e.g., number of activities participated in).

Variables Measurement

The dependent variable for this study is women's participation in sustainable community development, operationalized as a count variable based on the number of development activities women engaged in during the past twelve months. Participation was measured across eight domains: involvement in community meetings and decision-making, school/PTA activities, health outreach programs, economic or cooperative ventures, infrastructure and self-help projects, security or peace committees, advocacy and awareness campaigns, and other local initiatives. Each activity was coded dichotomously (1 = Yes, 0 = No), and the participation count was generated by summing across these indicators, thereby capturing the intensity of women's involvement in community development.

Women's educational attainment was captured as years of formal schooling. Respondents who had no education or informal education were coded as having zero years, while those with primary education were assigned six years, secondary education twelve years, and tertiary education sixteen years. This transformation provided a continuous variable reflecting cumulative years of schooling, which better captures the potential incremental effect of education on participation. The empowerment index was constructed from multiple dimensions of women's autonomy and agency. Indicators included control over personal income, decision-making power regarding expenditure, consultation in household decisions, group membership, and leadership experience. Each of these was coded and standardized before aggregation into a continuous index. This index reflects both economic and social empowerment, aligning with frameworks that highlight women's agency as a multidimensional construct influencing their capacity to contribute to community development.

Cultural and social barriers were measured using twelve Likert-type items that captured structural, normative, and institutional obstacles to women's participation. These included restrictive cultural norms, discouragement from male relatives, lack of time due to domestic responsibilities, financial constraints, limited access to information, security concerns, mobility restrictions, childcare demands, inadequate skills or education, exclusion by institutions, opposition from religious leaders, and fear of gossip or social stigma. Each statement was rated on a five-point scale from strongly disagree to strongly agree, with higher scores indicating stronger perceived barriers. An index was computed to provide a summary measure of the cultural and social constraints women face in community participation. Finally, the study controlled for socio-demographic characteristics such as age, household size, and marital status. Age was measured in completed years, household size as the number of household members, and marital status as a categorical variable distinguishing between single, married, divorced/separated, and widowed respondents. These controls account for individual and household-level dynamics that may influence both empowerment and community participation.

Techniques of Data analysis

For the technique of data analysis, both descriptive and inferential methods were applied. Descriptive statistics such as frequencies, percentages, means, and standard deviations were

used to summarize the characteristics of respondents and highlight patterns in education, empowerment, and participation. Inferential analysis was conducted using correlation tests and regression models to establish the relationships between key variables. To examine the determinants of women's participation in community development, the study specified a Negative Binomial Regression (NBR) model. This model was chosen because the dependent variable, *participation count*, is a count variable that exhibited over dispersion (variance exceeding the mean), making the Poisson regression model unsuitable. The NBR provides more robust and consistent estimates under such conditions by introducing a dispersion parameter that corrects for unobserved heterogeneity.

The model was specified as follows:

$$ln(\mu_i) = \beta_0 + \beta_1(Years\ of\ Schooling_i) + \beta_2(Empowerment\_Index_i)$$
$$+ \beta_3(Cultural/Social\_Bariers_i) + \beta_4(Age_i) + \beta_5(Household\_Size_i)$$

Where $\mu_i = E(Y_i/X_i)$ is the expected Count of Woman participation in community development for individual i.

The variance is model as $Var(Y_i/X_i) = \mu_i + \alpha\mu_i^2$

Result and Discussion
Demographic Characteristics
Table below present the description of demographic characteristics of the respondent.

Table 1: Descriptive Statistics N (384)

Variable	Categories	Frequency (%) / Mean ± SD
Marital Status	Single	41 (10.7%)
	Married	270 (70.3%)
	Divorced/Separated	43 (11.2%)
	Widowed	30 (7.8%)
Highest Education	None	68 (17.7%)
	Informal	94 (24.5%)
	Primary	82 (21.4%)
	Secondary	101 (26.3%)
	Tertiary	39 (10.2%)
Income Control	None	106 (27.6%)
	Irregular	156 (40.6%)
	Regular	122 (31.8%)
Decision on Income	Husband/Others	130 (33.9%)
	Joint	151 (39.3%)
	Self	103 (26.8%)
Consulted in Household Decision	Never	76 (19.8%)
	Sometimes	182 (47.4%)
	Often/Always	126 (32.8%)
Member of a group/association	No	239 (62.2%)
	Yes	145 (37.8%)
Leadership Role in a group/association	No	300 (78.1%)
	Yes	84 (21.9%)
Age (years)		36.7 ± 12.4
Household Size		6.3 ± 2.9

Source: Field Survey, 2025

The descriptive statistics provide important insights into the socio-demographic and empowerment profile of women in Northeastern Nigeria. The respondents have an average age of 36.7 years, with most falling within the productive age range of 18–59 years. The mean household size of 6.3 persons reflects the large family structures typical of the region, which can have both social and economic implications for women's responsibilities and resource allocation. Marital status distribution shows that a majority (70.3%) of the women is married, while smaller proportions are single (10.7%), divorced/separated (11.2%), or widowed (7.8%). This pattern indicates that marital relationships play a dominant role in shaping women's social and economic participation, with potential implications for autonomy and empowerment.

Educational attainment among respondents remains relatively low. While 26.3% of women attained secondary education, only 10.2% progressed to tertiary level. Notably, 17.7% reported no formal education and 24.5% had only informal education. This limited educational background suggests significant barriers to women's empowerment, as education is a critical determinant of economic opportunities, decision-making capacity, and civic

engagement. The economic profile of respondents further underscores these challenges. More than one-quarter (27.6%) reported having no personal income, while 40.6% earned irregular income and only 31.8% reported regular earnings. Furthermore, control over income is restricted, with just 26.8% of women deciding independently on how their income is spent, compared to 33.9% where husbands or others make decisions and 39.3% where decisions are made jointly. This finding highlights the persistence of economic dependency and gendered power relations within households. In terms of participation in household and community decision-making, the data reveal limited empowerment. Only 32.8% of women are often or always consulted in household decisions, while 19.8% are never consulted at all. At the community level, just 37.8% reported membership in any group or association, and only 21.9% had ever held a leadership position. These figures suggest that women's voices are underrepresented in both private and public spheres, despite their potential contributions to sustainable community development.

Relationship between education, empowerment and women Participation in Sustainable Community development activities.
In order to examine the relationship between the study's variables correlation analysis was conducted and the result is summarized in table below.

Table2: Result of Correlation Analysis between education, empowerment and community development initiatives

Variables	Years of Schooling	Empowerment Index	Participation Count
Years of Schooling	1.000		
Empowerment Index	0.004 (p = 0.939)	1.000	
Participation Count	0.051 (p = 0.363)	0.132** (p = 0.010)	1.000
Note: p < 0.05 is statistically significant (marked with **).			

Source: Field Survey, 2025

The correlation analysis reveals important insights into the relationships between women's education, empowerment, and participation in community development activities. The results show that years of schooling has a very weak and statistically insignificant correlation with the empowerment index (r = 0.004, p = 0.939). This suggests that formal education alone does not directly translate into greater empowerment for women in the study area. Structural, cultural, and social barriers may limit the extent to which education can be effectively converted into empowerment outcomes. On the other hand, the correlation between years of schooling and participation count is also weak and statistically insignificant (r = 0.051, p = 0.363). This implies that women's participation in community development activities is not strongly influenced by their level of education. Community engagement may therefore depend more on contextual and institutional factors, such as cultural norms, access to resources, and social networks, rather than educational attainment alone.

However, a moderate positive and statistically significant correlation exists between the empowerment index and participation count (r = 0.132, p = 0.010). This indicates that women

who report higher levels of empowerment are more likely to participate in community development activities. These finding highlights empowerment as a crucial enabling factor for women's active involvement in collective decision-making and community initiatives.

Negative Binomial Regression Predicting Women's Participation in Community Development

The result of the negative binomial regression showing the effects of education, women empowerment and other variables on sustainable community development in North East Nigeria is summarized in the table below.

Table 3: Result of Negative Binomial Regression

Predictor	Coefficient (B)	SE	z	p	IRR	95% CI for IRR
Years of Schooling	0.0877	0.0391	2.24	0.025	1.09	[1.01- 1.18]
Empowerment Index	0.1566	0.0432	3.63	0.000	1.17	[1.07- 1.27]
Cultural–Social Barriers	–0.3228	0.1498	–2.16	0.031	0.72	[0.54- 0.97]
Household Size	–0.2854	0.1298	–2.20	0.028	0.75	[0.58- 0.97]
Age	0.0051	0.0046	1.12	0.265	1.01	[0.99- 1.01]
Constant	–0.9585	0.2612	–3.67	0.000	0.38	[0.23- 0.64]

Model Fit Statistics: R χ^2 (5) = 21.28, p = 0.0007; Log Likelihood = –487.94

α = 0.14 (95% CI: 0.04–0.52); LR test of α = 0: χ^2 (1) = 2.90, p = 0.044.

Source: Field Survey, 2025

To examine the determinants of women's participation in community development, a Negative Binomial regression model was estimated. The model was statistically significant overall, with a likelihood ratio chi-square of 21.28 (df = 5, p = 0.0007), indicating that the predictors jointly contribute to explaining variation in women's participation. The log-likelihood was –487.94, and the pseudo-R^2 was 0.0213, suggesting that the explanatory variables accounted for about 2.1% of the variation in the outcome. The dispersion parameter (α) was estimated at 0.14 (95% CI: 0.04–0.52), and the likelihood ratio test of α = 0 was significant (χ^2 = 2.90, p = 0.044), confirming that the Negative Binomial model provided a better fit than a standard Poisson model. As shown in Table 4, several predictors were statistically significant. Years of schooling had a positive and significant effect (B = 0.088, p = 0.025). The incidence rate ratio (IRR = 1.09) indicates that, holding other factors constant, each additional year of schooling increases the expected participation count by approximately **9%**. This suggests that education plays an important role in enhancing women's engagement in community development. Similarly, the empowerment index was positively associated with participation (B = 0.157, p < 0.001). The IRR of 1.17 implies that a one-unit increase in empowerment is associated with a 17% increase in the rate of community participation. This finding underscores the critical role of empowerment in enabling women to contribute more actively to local development processes.

In contrast, cultural and social barriers were negatively related to participation (B = –0.323, p = 0.031). The IRR of 0.72 indicates that a one-unit increase in socio-cultural barriers decreases women's participation by about 28%. This result highlights the restrictive influence of traditional norms and cultural constraints on women's involvement in community life. Household size also exerted a significant negative effect (B = –0.285, p = 0.028). The IRR of 0.75 suggests that each additional household member reduces women's participation in community development by approximately 25%. This may reflect the burden of domestic responsibilities and caregiving roles, which limit the time and resources women can devote to collective activities. The variable age was positively but not significantly related to participation (B = 0.005, p = 0.265; IRR = 1.01). This suggests that, while older women may be slightly more involved in community development, the effect is weak and not statistically distinguishable from zero.

Overall, these results indicate that women's education and empowerment are strong positive drivers of participation in community development, while socio-cultural barriers and larger household size act as significant constraints. Age appears to play only a marginal role. These findings highlight the importance of promoting educational opportunities and empowerment initiatives for women, while simultaneously addressing socio-cultural barriers and household-level constraints that may hinder their active engagement in sustainable community development.

Summary, Conclusion and Recommendation
Summary
This study investigated the influence of women's education and empowerment on sustainable community development in Northeastern Nigeria. It employed a quantitative research design using cross-sectional data obtained from women across selected communities. A structured questionnaire was administered, and the data were analyzed using descriptive statistics and Negative Binomial Regression to determine the extent and direction of the relationships among the variables. The results revealed that both education and empowerment exerted positive and statistically significant effects on women's participation in community development. Specifically, years of schooling and empowerment index were key predictors of active engagement in community initiatives. This implies that women with higher levels of education and empowerment are more likely to participate in decision-making, leadership, and development activities within their communities.

On the other hand, socio-cultural barriers showed a strong negative influence on participation, indicating that cultural norms, gender stereotypes, and traditional practices continue to hinder women's involvement in collective community actions. Household size also had a negative and significant effect, suggesting that women in larger families face heavier domestic responsibilities that limit their external engagements. Age was positively related to participation, though the effect was not statistically significant.

Overall, the findings underscore that sustainable community development in Northeastern Nigeria is strongly dependent on enhancing women's access to education and empowerment

opportunities while addressing the structural and cultural barriers that restrict their participation.

Conclusion

The study concludes that women's education and empowerment are critical drivers of sustainable community development in Northeastern Nigeria. Education equips women with knowledge, confidence, and leadership skills that enhance their contribution to community welfare, while empowerment provides the economic and social agency needed to translate these capacities into action. Conversely, socio-cultural constraints and large household responsibilities undermine women's potential to participate effectively in community affairs. These findings affirm the theoretical propositions of gender and development (GAD) and empowerment frameworks, which emphasize that the inclusion of women is not merely a matter of equity but a prerequisite for sustainable and inclusive growth. Therefore, any effort to achieve community-based development in the region must prioritize women's access to education, empowerment, and institutional support that dismantle discriminatory norms and practices.

Recommendations

Based on the study's findings, the following recommendations are proposed:

Promoting women's education should remain a central focus of development policy in Northeastern Nigeria. Government and development partners need to strengthen initiatives that enhance girls' and women's access to quality education at all levels. In addition, adult literacy and non-formal education programs should be expanded to reach women who missed formal schooling, thereby improving their knowledge base, confidence, and civic engagement capacity.

Women's empowerment programs should also be broadened beyond financial inclusion to encompass leadership training, entrepreneurship development, and decision-making skills. Access to credit, productive resources, and vocational training should be prioritized for women in rural and semi-urban communities to enable them to become economically independent and active contributors to local development.

Addressing socio-cultural barriers is equally critical. Community sensitization campaigns and advocacy initiatives should be intensified to challenge harmful gender norms, stereotypes, and traditional practices that restrict women's participation in leadership and community activities. Working closely with traditional and religious leaders will help reshape societal attitudes toward women's roles and ensure more inclusive development processes.

Furthermore, policies should be designed to support a better balance between domestic responsibilities and public engagement. Promoting family support systems, community-based childcare services, and encouraging men's participation in household tasks can reduce the burden of unpaid care work and free women's time for community participation.

Finally, women should be fully integrated into community decision-making structures. Development committees, local councils, and community associations must institutionalize gender inclusion by ensuring equitable representation of women in leadership and governance processes. Meaningful inclusion will not only empower women but also strengthen the overall effectiveness and sustainability of community development initiatives.

Acknowledgement

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