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RESEARCH ARTICLE

GENDER-BASED EDUCATIONAL IMBALANCE IN SOUTHEAST NIGERIA AND ITS CONSEQUENCES ON HUMAN CAPITAL DEVELOPMENT

UGOCHUKWU OKORIE NKUME

Department of Sociology, Faculty of Social and Management Sciences, Alvan Ikoku Federal University of Education, Owerri

ABSTRACT

This study investigated gender-based educational imbalance in Southeast Nigeria and its consequences for human capital development, with Imo State as the focal area. Despite national policies promoting universal education, significant disparities, particularly in science, technology, engineering, and mathematics (STEM) fields, persist between male and female educational access and attainment in the region, with profound implications for socioeconomic development. The study is anchored on Feminist Theory. It adopted a descriptive survey research design and used 393 respondents drawn across three Local Government Areas in the 3 senatorial zones in Imo State. Data was collected using a structured questionnaire of 5-point Likert scale and it was analysed using mean, standard deviation, and Pearson correlation coefficient to test hypotheses at 0.05 significance level. Findings from the study shows that cultural norms like division of labour based on gender and poverty affect girls. This leads to loss of potential female entrepreneurs which limits skilled workforce and has adverse effect on the family, community and Nigeria at large. Recommendations like strengthening implementation and enforcement of existing policy on universal basic education/gender equity and increase investment on girls' education by government and lawmakers were made.

Keywords: Gender imbalance, educational inequality, human capital development

Corresponding Author

Ugochukwu Okorie Nkume
Email Address: ugochukwu,nkume@alvanikoku.edu.ng
Telephone Number: +2347064588887

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1.0. INTRODUCTION

Education remains the cornerstone of human capital development and a fundamental driver of socioeconomic progress in every society. The United Nations Sustainable Development Goal 4 explicitly advocates for inclusive and equitable quality education and the promotion of lifelong learning opportunities for all, without discrimination based on gender (Kolawole, 2024). In Nigeria, the National Policy on Education (Federal Republic of Nigeria, 2004) guarantees equal educational opportunities for all citizens regardless of gender, ethnicity, or social background. Despite these policy frameworks, gender-based educational imbalance persists as a critical challenge, particularly in the Southeast geopolitical zone of the country.

The concept of human capital development, popularized by economists such as Schultz (1961) and Becker (1964), refers to the process of acquiring and increasing the number of persons with the skills, education, and experience that are critical for economic productivity. Human capital encompasses the knowledge, skills, competencies, and attributes embodied in individuals that facilitate the creation of personal, social, and economic well-being. When educational opportunities are unevenly distributed between males and females, the resultant imbalance creates a deficit in human capital development that affects not only individuals but entire communities and nations.

Southeast Nigeria, comprising Abia, Anambra, Ebonyi, Enugu, and Imo States, presents a paradoxical scenario regarding gender and education. The region is historically known for its high value on Western education, being among the first areas in Nigeria to embrace formal schooling through missionary activities (Bature & Nwosu, 2015). However, beneath this progressive facade lie persistent gender-based educational disparities that manifest in various forms, including differential enrollment rates, completion rates, and subject specialization patterns.

Recent studies have documented that cultural norms, economic factors, and traditional belief systems continue to privilege male education over female education in many communities (Nnama-Okechukwu, 2024; Onalu, 2025). Imo State, located in the heart of Southeast Nigeria, exemplifies these contradictions. The state boasts numerous educational institutions ranging from primary schools to universities, yet gender-based educational imbalances remain evident. According to Osigwe and Agu (2025), while access to basic education has improved for both genders in Imo State, significant disparities emerge at secondary and tertiary levels, particularly in science, technology, engineering, and mathematics (STEM) fields. These disparities have far-reaching implications for human capital development, as they limit the pool of skilled human resources available for economic transformation.

The policy environment for addressing gender-based educational imbalance in Nigeria has evolved considerably over the past decade. The Universal Basic Education (UBEC) programme, established in 1999, aims to provide free and compulsory basic education for all children. However, implementation challenges have limited its effectiveness in bridging gender gaps. Addeh (2024) reported that despite Nigeria's out-of-school children crisis, many states have failed to access substantial UBEC funds allocated for educational improvement, suggesting governance deficits that perpetuate educational inequalities. International frameworks have also influenced Nigeria's approach to gender and education.

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The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), which Nigeria ratified in 1985, obligates the state to ensure equal educational opportunities for women and girls. The African Charter on the Rights and Welfare of the Child (1990) similarly guarantees the right to education without discrimination. However, Magbadelo (2019) observed that the gap between international commitments and domestic implementation remains substantial in Nigeria.

Gender-based educational imbalance in Southeast Nigeria represents a critical development challenge that has attracted scholarly attention over the past decade. Researchers have documented various dimensions of this problem, including differential enrollment rates, completion disparities, and gender-stereotyped subject choices. Nnama-Okechukwu (2024) identified gender bias, informal foster care arrangements, and child marriage as key challenges limiting girls' educational opportunities in Enugu State. Onalu (2025) found that prioritization of marriage over education significantly contributes to girl-child dropout from schools in rural areas. Osigwe et al (2025) demonstrated that gender influences academic giftedness identification among primary pupils in Imo State. Azubogu (2018 cited in Armed, 2023) established that gender differences affect students' reading habits in Imo State University.

Despite these valuable contributions, significant research gaps remain. First, existing studies have largely focused on identifying barriers to female education without adequately examining the consequences of these imbalances for human capital development. The link between educational disparities and broader socioeconomic outcomes in Southeast Nigeria remains under-theorized and empirically under-investigated. Second, most studies have adopted qualitative methodologies that, while providing rich contextual understanding, limit generalizability across the region. Third, research has tended to examine either causes or consequences in isolation, rather than developing integrated models that trace the pathways from socio-cultural factors through educational outcomes to human capital development consequences.

Fourth, existing studies have predominantly focused on Enugu State (Nnama-Okechukwu, 2024; Onalu, 2025; Enebe, 2021), with limited attention to other states in the Southeast zone. Imo State, despite its educational significance, has received comparatively less research attention regarding gender-based educational imbalance. Fifth, the specific mechanisms through which educational gender gaps translate into human capital deficits have not been systematically explored in the Southeast Nigerian context. This study seeks to fill these gaps.

The justification for this study derives from several considerations. Theoretically, the study contributes to understanding how patriarchal structures perpetuate educational inequalities and their development consequences in a specific cultural context. Practically, the findings will inform policy interventions aimed at achieving Sustainable Development Goal 4 (quality education) and Goal 5 (gender equality) in Southeast Nigeria. The study's focus on human capital consequences addresses the economic imperative for gender equity, potentially strengthening the business case for educational investments in girls and women

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1.1. Research Questions

The following research questions guide this study:

1. What socio-cultural and economic factors contribute to gender-based educational imbalance in Imo State, Southeast Nigeria?
2. What is the nature and extent of gender-based educational imbalance in terms of enrollment, retention, and completion rates across educational levels in Imo State?
3. What are the perceived consequences of gender-based educational imbalance for human capital development in Imo State?

1.2. Research Objectives

The objectives of this study are to:

1. Examine the socio-cultural and economic factors contributing to gender-based educational imbalance in Imo State, Southeast Nigeria.
2. Assess the nature and extent of gender-based educational imbalance across educational levels in Imo State.
3. Investigate the perceived consequences of gender-based educational imbalance for human capital development in Imo State.

1.3. Research Hypotheses

The following null hypotheses are formulated for testing at 0.05 level of significance.

H_{01}: There is no significant relationship between socio-cultural factors and gender-based educational imbalance in Imo State.

H_{02}: There is no significant relationship between economic factors and gender-based educational imbalance in Imo State.

H_{03}: There is no significant relationship between gender-based educational imbalance and human capital development outcomes in Imo State.

2.0. CONCEPTUAL CLARIFICATION AND THEORETICAL FRAMEWORK

2.0. Conceptual Framework

Gender-Based Educational Imbalance

Gender-based educational imbalance refers to disparities between males and females in access to, participation in, and completion of formal education. Azubogu (2018 cited in Armed, 2023) defines gender in education as representing the socially constructed definitions of men and women, distinct from their biological characteristics, which determine the conception of tasks, functions, roles, and

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responsibilities attributed to each gender in society. These social constructions shape educational opportunities and outcomes in ways that often disadvantage females. Kolawole (2024) observes that despite Nigeria's progress in expanding educational access, gender disparity remains a perennial problem given that females encounter barriers ranging from cultural stereotypes, harmful religious sentiments, systemic impediments, lack of political will, and other complex socio-economic challenges.

The imbalance manifests in multiple dimensions, including enrollment rates (fewer girls enrolled at secondary and tertiary levels), completion rates (higher dropout rates for girls, particularly at transition points), subject specialization (gender-stereotyped subject choices), and quality of educational experience (differential treatment within classrooms). Ahmad (2023) emphasize that gender-based educational imbalance violates fundamental human rights principles enshrined in international instruments including the Universal Declaration of Human Rights (1948) and the Convention on the Rights of the Child (1989). They argue that education is a factor that helps individuals reach their full potential, and girls should therefore have equal access and opportunities without discrimination due to their gender.

In the Southeast Nigerian context, Nnama-Okechukwu. (2024) found that family decisions, economic activities, and cultural beliefs continue to exclude girls from accessing educational opportunities. Their research identified gender bias, informal foster care arrangements, and child marriage as specific mechanisms through which educational imbalance is perpetuated. Onalu (2025) added that prioritization of marriage over education remains a critical factor in girl-child dropout from schools, particularly in rural areas where traditional values remain strong.

Human Capital Development

Human capital development refers to the process of enhancing the knowledge, skills, competencies, and attributes of individuals that facilitate personal, social, and economic well-being. The concept, rooted in the works of Schultz (1961) and Becker (1964), conceptualizes education and training as investments that yield returns both for individuals (through higher earnings) and for society (through increased productivity and economic growth). Agusiobo (2018) argues that education of the girl-child in Nigeria is essential for building a just, peaceful, harmonious society and achieving sustainable development. Educated women contribute to development through multiple pathways: they participate more effectively in the labour force, earn higher incomes, invest more in their children's education and health, engage more actively in community development, and contribute to democratic governance.

Ahmed and Yola (2021) position girl-child education as a tool for sustainable development in Nigeria, demonstrating that educated women are more likely to adopt improved agricultural practices, engage in entrepreneurship, and participate in household decision-making. Andrew and Etumabo (2016) similarly emphasize the implications of girl-child education for nation-building in the 21st century, arguing that no nation can achieve its full development potential while excluding half its population from educational opportunities.

The human capital consequences of gender-based educational imbalance are both direct and indirect. Direct consequences include reduced labour force participation, lower earnings, and diminished

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economic productivity among women. Indirect consequences encompass intergenerational effects, as educated mothers are more likely to educate their own children, creating virtuous cycles of human capital accumulation. Attamah (2020) documented that women's limited involvement in rural community development in Enugu State is partly attributable to educational deficits that restrict their capacity for meaningful participation.

Linking Gender-Based Educational Imbalance and Human Capital Development

The linkage between gender-based educational imbalance and human capital development operates through multiple mechanisms. At the individual level, educational disparities limit women's acquisition of knowledge and skills necessary for productive employment, entrepreneurship, and effective participation in social and political life. At the household level, less-educated women have fewer resources to invest in their children's health, nutrition, and education, perpetuating intergenerational poverty and underdevelopment. At the community level, gender-based educational imbalance reduces the pool of skilled human resources available for local development initiatives. Attamah (2020) found that women's involvement in rural community development in Enugu State was constrained by educational limitations, affecting the quality and sustainability of development outcomes. At the national level, Kuteesa (2024) argue that gender equity in education is a prerequisite for sustainable development, demonstrating that countries with higher levels of female educational attainment consistently achieve better development outcomes.

In the Southeast Nigerian context, the human capital consequences of gender-based educational imbalance are particularly significant given the region's historical reliance on human capital as a development strategy. With limited natural resources, Southeast Nigeria has traditionally invested in education as a pathway to social mobility and economic development. Gender-based educational imbalance thus represents not only a social injustice but also an economic inefficiency that undermines the region's development potential.

2.2. Theoretical Framework

This study is anchored on feminist theory, particularly the works of Nancy Chodorow (1978) and Sandra Harding (1986). Feminist theory provides a comprehensive framework for understanding how patriarchal structures and cultural norms perpetuate gender inequalities, including disparities in educational access and attainment. Nancy Chodorow (1978), in her seminal work "The Reproduction of Mothering," argued that gender inequality is reproduced through socialization processes that assign different psychological capacities and social roles to males and females. According to her, women's primary responsibility for early childcare creates different relational capacities and psychological orientations in boys and girls.

Girls develop a sense of self in relation to others, while boys develop a more autonomous sense of self. These different psychological orientations, while not inherently unequal, become the basis for gender-differentiated social roles that privilege male activities and attributes. Sandra Harding (1986), in "The Science Question in Feminism," extended feminist analysis to examine how knowledge production itself is gendered. Harding argued that traditional epistemology and scientific methodology reflect masculine perspectives and values, systematically excluding women's

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experiences and ways of knowing. Her work highlights the importance of including women's perspectives in research and recognizing the validity of diverse.

Feminist theory is highly relevant to this study because it provides a framework for understanding how patriarchal structures in Southeast Nigerian society perpetuate gender-based educational imbalance. Secondly, feminist theory illuminates the mechanisms through which gender-based educational imbalance translates into broader development consequences.

3.0. RESEARCH METHODOLOGY

This study adopts a descriptive survey research design. According to Osigwe et al, (2025), descriptive survey design is appropriate for studies aimed at systematically describing the characteristics, opinions, and behaviors of a population. The descriptive survey design is appropriate for this study because it allows for the collection of quantitative data from a large sample, enabling generalization of findings to the broader population. The design facilitates examination of relationships between variables (socio-cultural factors, economic factors, educational imbalance, and human capital development) through statistical analysis. The study is conducted in Imo State, Southeast Nigeria. Imo State is one of the five states comprising the Southeast geopolitical zone, bounded by Abia State to the east, Anambra State to the west, Rivers State to the south, and Enugu State to the north.

The state has a population of approximately 5.4 million people (National Population Commission, 2006) distributed across 27 Local Government Areas. Imo State is predominantly Igbo, with a rich cultural heritage that places high value on education. The state hosts numerous educational institutions, including Imo State University, Owerri), Federal University of Technology, Owerri), Alvan Ikoku Federal College of Education, and several polytechnics and colleges of education. Despite this educational infrastructure, gender-based disparities persist, making the state an appropriate setting for this study.

The universal population for this study comprises all adults aged 18 years and above residing in Imo State. According to the National Population Commission (2006) projections, the adult population (18 years and above) of Imo State is approximately 2,340,650. This population includes parents, guardians, educators, community leaders, and other stakeholders who have direct experience with or knowledge of gender-based educational imbalance in the state. The sample size for this study is determined using Taro Yamane's formula which gave n = 399.96 ≈ 400 respondents. The study employs a multi-stage sampling procedure. Three Local Government Areas (LGAs) was randomly selected from the 3 senatorial zones using simple random sampling (balloting method).

The selected LGAs are Owerri Municipal, Mbaitoli, and Okigwe, representing the three senatorial zones of the state. From each selected LGA, two communities were randomly selected, yielding six communities for the study. Within each selected community, households were selected using systematic random sampling. Starting points are randomly determined, and every 10th household is selected until the desired sample size for each community is achieved. Within each selected household, one adult (18 years and above) was purposively selected based on availability and willingness to participate. Gender balance is sought in respondent selection to ensure representation of both male and female perspectives.

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The instrument for data collection is a structured questionnaire. The questionnaire was divided into sections containing demographic information and issue of study which was arranged in 5-point Likert scale for easy comprehension and to reduce confusion for the respondents. The questionnaire was subjected to face and content validation by three experts in Sociology and Educational Research who assess the relevance, clarity, and comprehensiveness of items.

Data collection was conducted over a period of four weeks in January, 2026 with the help of two research assistants recruited for the study. Consent was obtained from respondents before administration. Confidentiality was highly maintained. Data was analyzed using descriptive and inferential statistics (Mean, SD and Pearson Correlation).

4.0. PRESENTATION OF RESULTS AND DISCUSSION

4.1. Presentation of Results

Assessment of Demographic Characteristics of Respondents

The demographic profile shows a relatively balanced gender distribution (48.9 percent male, 51.1 percent female). The majority of respondents are within the economically active age brackets (18-45 years, 77.1 percent). Educational attainment is relatively high, with 72.2 percent having secondary education or higher. The occupational distribution reflects the state's economic structure, with trading/business (39.7 percent) and farming (24.9 percent) being the dominant occupations. Rural residents constitute 60.3 percent of the sample, reflecting the state's population distribution

Table 1: Demographic Characteristics of Respondents

Variable	Category	Frequency	Percentage
Gender	Male	192	48.9%
	Female	201	51.1%
Age	18-30 years	145	36.9%
	31-45 years	158	40.2%
	46-60 years	67	17.0%
	Above 60 years	23	5.9%
Educational Level	No formal education	31	7.9%
	Primary education	78	19.8%
	Secondary education	142	36.1%
	Tertiary education	142	36.1%
Occupation	Farming	98	24.9%
	Civil service	78	19.8%
	Trading/Business	156	39.7%
	Artisan	42	10.7%
	Unemployed	19	4.8%
Location	Urban	156	39.7%
	Rural	237	60.3%

Source: Author's Field Work (2026).

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Evaluation of Socio-Cultural and Economic Drivers of Gender-Based Educational Imbalance

Table 2 presents mean scores on socio-cultural and economic factors contributing to gender-based educational imbalance. The grand mean of 3.99 indicates that respondents agree that both socio-cultural and economic factors contribute to gender-based educational imbalance in Imo State. For socio-cultural factors, the cluster mean of 3.93 indicates agreement. The highest-rated items include: "Cultural norms assign domestic roles to girls that interfere with schooling" (mean=4.32), "Gender bias in families favors male education over female education" (mean=4.21), and "The community values marriage for girls more than education" (mean=4.15).

Table 2: Mean Scores on Socio-Cultural and Economic Factors

S/N	Statement	Mean	SD	Decision
1	Gender bias in families favors male education over female education	4.21	0.87	Agree
2	Cultural norms assign domestic roles to girls that interfere with schooling	4.32	0.76	Agree
3	Early marriage practices force girls to drop out of school	4.08	0.94	Agree
4	Parents prioritize sons' education because sons will carry on the family name	3.98	1.02	Agree
5	Religious beliefs influence decisions about girls' education in this community	3.42	1.21	Disagree
6	Informal foster care arrangements disrupt girls' education	3.87	0.98	Agree
7	The community values marriage for girls more than education	4.15	0.89	Agree
8	Girls are socialized to believe that education is less important for them	4.06	0.92	Agree
9	Widowhood practices affect girls' educational opportunities	3.56	1.08	Agree
10	There is community perception that educated girls are less respectful	3.68	1.14	Agree
	Cluster Mean (Socio-Cultural Factors)	**3.93**	**0.98**	**Agree**
11	Household poverty limits ability to educate all children equally	4.28	0.82	Agree
12	When resources are limited, boys are prioritized for education	4.18	0.91	Agree
13	Girls are kept home to work when families face economic hardship	4.11	0.93	Agree
14	The cost of education (fees, uniforms, materials) is a barrier for girls	4.24	0.79	Agree
15	Child labour affects girls more than boys in this community	3.72	1.05	Agree
16	Families expect economic returns from educating boys more than girls	4.09	0.96	Agree
17	Dowry practices influence educational investment in girls	3.88	1.01	Agree
18	Unemployment of educated women discourages investment in girls' education	3.95	0.97	Agree
	Cluster Mean (Economic Factors)	**4.06**	**0.93**	**Agree**
	Grand Mean	**3.99**	**0.96**	**Agree**

Source: Author's Field Work (2026).

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These findings align with Nnama-Okechukwu (2024), who identified gender bias and prioritization of marriage over education as key challenges in Enugu State. The lowest-rated item, "Religious beliefs influence decisions about girls' education" (mean=3.42), suggests that religious factors may be less significant in Imo State compared to other regions, consistent with Abubakar's (2023) observation that religious influence on education varies across Nigeria.

For economic factors, the cluster mean of 4.06 indicates stronger agreement. The highest-rated items include: "Household poverty limits ability to educate all children equally" (mean=4.28), "The cost of education is a barrier for girls" (mean=4.24), and "When resources are limited, boys are prioritized for education" (mean=4.18). These findings corroborate Abdullahi (2015) and Abubakar (2023), who documented how poverty forces families to make gendered choices about educational investment. The lower rating for "Child labour affects girls more than boys" (mean=3.72) suggests that while child labour is recognized as a problem, its gender dimension may be less pronounced than other economic factors, though this contrasts somewhat with Enebe (2021), who found girls disproportionately affected by domestic work in Enugu.

Nature and Extent of Gender-Based Educational Imbalance

Table 3 presents mean scores on the nature and extent of gender-based educational imbalance. The cluster mean of 3.76 indicates agreement that gender-based educational imbalance exists across various dimensions in Imo State.

Table 3: Mean Scores on Nature and Extent of Educational Imbalance

S/N	Statement	Mean	SD	Decision
1	Fewer girls than boys enroll in secondary schools in this community	4.02	0.95	Agree
2	Girls drop out of school at higher rates than boys	3.98	1.01	Agree
3	Boys are more likely to complete secondary education than girls	4.11	0.88	Agree
4	At tertiary level, male students outnumber female students	3.86	1.04	Agree
23	Girls are channeled toward arts subjects while boys take sciences	3.94	0.97	Agree
5	The imbalance is more pronounced in rural areas than urban areas	4.23	0.81	Agree
6	Wealthy families educate both sons and daughters equally	2.89	1.23	Disagree
7	The gap has narrowed over the past decade	3.45	1.11	Disagree
8	Girls from poor families are most affected by educational imbalance	4.31	0.76	Agree
9	Government policies have reduced gender imbalance in education	2.76	1.18	Disagree
10	Primary education is relatively balanced between genders	3.38	1.09	Disagree
11	The imbalance affects transition from primary to secondary school	4.08	0.92	Agree
	Cluster Mean	**3.76**	**1.00**	**Agree**

Source: Author's Field Work (2026).

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The highest-rated items include: "Girls from poor families are most affected by educational imbalance" (mean=4.31), "The imbalance is more pronounced in rural areas than urban areas" (mean=4.23), and "Boys are more likely to complete secondary education than girls" (mean=4.11). These findings align with Osigwe and Agu (2025), who documented gender differences in educational outcomes in Imo State. The urban-rural disparity finding is consistent with Onalu (2025), who noted that girl-child dropout is particularly pronounced in rural areas of Enugu State.

Items with lower ratings include: "Government policies have reduced gender imbalance in education" (mean=2.76), "Wealthy families educate both sons and daughters equally" (mean=2.89), and "Primary education is relatively balanced between genders" (mean=3.38). These findings suggest that respondents perceive limited impact of policy interventions, that economic status does not fully eliminate gender bias even among wealthy families, and that imbalance begins early, contradicting assumptions that gender gaps emerge only at higher levels. The finding on policy effectiveness corroborates Addeh's (2022) observation that implementation deficits limit the impact of educational policies in Nigeria.

Consequences of Gender-Based Educational Imbalance for Human Capital Development

Table 4 presents mean scores on the consequences of gender-based educational imbalance for human capital development. The cluster mean of 4.00 indicates strong agreement that gender-based educational imbalance has significant negative consequences for human capital development in Imo State. The highest-rated items include: "Women's economic productivity is reduced by educational deficits" (mean=4.24), "Communities lose potential female entrepreneurs due to limited education" (mean=4.21), and "Gender imbalance limits the skilled workforce available for development" (mean=4.18).

Table 4: Mean Scores on Human Capital Development Consequences

S/N	Statement	Mean	SD	Decision
1	Gender imbalance limits the skilled workforce available for development	4.18	0.85	Agree
2	Women's economic productivity is reduced by educational deficits	4.24	0.79	Agree
3	Communities lose potential female entrepreneurs due to limited education	4.21	0.83	Agree
4	Educated mothers invest more in their children's education	3.42	1.12	Disagree
5	Gender imbalance perpetuates poverty across generations	4.12	0.91	Agree
6	The state's human capital development suffers from excluding women	4.09	0.94	Agree
7	Women's participation in community development is limited by education	4.15	0.88	Agree
8	Less-educated women have poorer health outcomes	3.68	1.03	Agree
9	Gender imbalance in education affects democratic participation	3.88	0.99	Agree
10	The region's economic growth is constrained by educational gender gaps	4.06	0.96	Agree
	Cluster Mean	4.00	0.93	Agree

Source: Field Work, Jan. 2026

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Contextually, the findings align with Agusiobo (2018), Ahmed et al (2021), and Andrew et al (2016), who documented the multiple ways in which female education contributes to economic development and how educational deficits constrain these contributions. The only item rated below the agreement threshold is "Educated mothers invest more in their children's education" (mean=3.42). This finding is surprising given the strong evidence in the literature (Agusiobo, 2018; Ahmed et al, 2021) of intergenerational effects of maternal education. It may reflect respondents' limited awareness of this relationship, or it may indicate that in the Imo State context, other factors mediate the relationship between maternal education and child investment. Alternatively, the neutral wording of the statement (not specifying "than uneducated mothers") may have affected responses.

The findings on community participation (mean=4.15) corroborate Attamah et al. (2020), who documented that women's limited involvement in rural community development in Enugu State is partly attributable to educational deficits. The finding on poverty perpetuation (mean=4.12) aligns with theoretical expectations about intergenerational transmission of disadvantage. The relatively lower rating for health outcomes (mean=3.68) may reflect limited awareness of the well-documented relationship between female education and improved health indicators.

Testing of Hypotheses

Table 5 presents the Pearson correlation between socio-cultural factors and gender-based educational imbalance. The correlation coefficient (r = 0.624) indicates a strong positive relationship between socio-cultural factors and educational imbalance. The p-value (0.000) is less than 0.05, leading to rejection of the null hypothesis. This means there is a significant relationship between socio-cultural factors and gender-based educational imbalance in Imo State.

H_0: There is no significant relationship between socio-cultural factors and gender-based educational imbalance in Imo State.

Table 5: Pearson Correlation between Socio-Cultural Factors and Educational Imbalance

Variable	Mean	SD	r	p-value	Decision
Socio-Cultural Factors	393	0.98	0.624	0.000	Reject H_0

Source: Author's Field Work (2026).

Hypothesis Two: Relationship between Economic Factors and Gender-Based Educational Imbalance

H_0: There is no significant relationship between economic factors and gender-based educational imbalance in Imo State.

Table 6: Pearson Correlation between Economic Factors and Educational Imbalance

Variable	Mean	SD	r	p-value	Decision
Economic Factors	4.06	0.93	0.581	0.000	Reject H_0

Source: Field Work, Jan. 2026

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Table 6 presents the Pearson correlation between economic factors and gender-based educational imbalance. The correlation coefficient (r = 0.581) indicates a moderate to strong positive relationship between economic factors and educational imbalance. The p-value (0.000) is less than 0.05, leading to rejection of the null hypothesis. This means there is a significant relationship between economic factors and gender-based educational imbalance in Imo State.

Hypothesis Three: Relationship between Gender-Based Educational Imbalance and Human Capital Development

H_0: There is no significant relationship between gender-based educational imbalance and human capital development outcomes in Imo State.

Table 7: Pearson Correlation between Educational Imbalance and Human Capital Development

Variable	Mean	SD	r	p-value	Decision
Educational Imbalance	3.76	1.00	0.547	0.000	Reject H_0
Human Capital Development	4.00	0.93			

Source: Field Work, Jan. 2026

Table 7 presents the Pearson correlation between gender-based educational imbalance and human capital development. The correlation coefficient (r = -0.547) indicates a moderate negative relationship between educational imbalance and human capital development. The negative sign indicates that as educational imbalance increases, human capital development decreases. The p-value (0.000) is less than 0.05, leading to rejection of the null hypothesis. This means there is a significant negative relationship between gender-based educational imbalance and human capital development outcomes in Imo State. This finding strongly supports the theoretical expectation that gender-based educational imbalance undermines human capital development.

4.2. DISCUSSION OF FINDINGS

The findings reveal that both socio-cultural and economic factors significantly contribute to gender-based educational imbalance in Imo State. The cluster mean for socio-cultural factors (3.93) and economic factors (4.06) indicate strong agreement that these factors are operational in the study area. Among socio-cultural factors, cultural norms assigning domestic roles to girls, gender bias favoring male education, and community valuation of marriage over education emerged as the most significant contributors.

The finding on cultural norms assigning domestic roles to girls (mean=4.32) is particularly significant. It reflects the gendered division of labour documented by Alabi et al. (2014) and suggests that household responsibilities continue to interfere with girls' educational participation. This finding has implications for intervention design, suggesting that efforts to promote girls' education must address not only school-based factors but also household dynamics that compete with schooling.

The finding on community valuation of marriage over education (mean=4.15) corroborates Onalu et al. (2025), who found that prioritization of marriage over education is a critical factor in girl-child dropout in rural Enugu State. This finding suggests that cultural values linking women's worth to

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marriage rather than educational attainment remain influential, despite decades of advocacy for girls' education. Among economic factors, household poverty limiting ability to educate all children equally (mean=4.28), cost of education as a barrier for girls (mean=4.24), and prioritization of boys when resources are limited (mean=4.18) emerged as most significant. The consistency of economic findings across Nigerian regions suggests that poverty is a universal constraint on girls' education, though its interaction with cultural factors produces region-specific patterns.

The significant correlations between socio-cultural factors (r=0.624) and economic factors (r=0.581) with educational imbalance provide strong empirical support for the theoretical expectation that both sets of factors matter. The slightly higher correlation for socio-cultural factors suggests that cultural beliefs and practices may be somewhat more influential in shaping educational gender gaps in Imo State, though economic factors are clearly also important. This finding has implications for intervention design, suggesting that addressing gender-based educational imbalance requires both cultural change and economic empowerment.

The findings reveal that gender-based educational imbalance in Imo State manifests across multiple dimensions, including enrollment, retention, completion, and subject specialization. The cluster mean of 3.76 indicates that respondents perceive significant gender disparities in education. The finding that girls from poor families are most affected by educational imbalance (mean=4.31) highlights the inter-sectionality of gender and class in shaping educational opportunities. The finding that imbalance is more pronounced in rural areas (mean=4.23) corroborates Onalu (2025) and suggests that urban-rural disparities compound gender disparities.

The finding that boys are more likely to complete secondary education than girls (mean=4.11) indicates that gender gaps persist through the educational pipeline. This finding aligns with Osigwe and Agu (2025), who documented gender differences in educational outcomes in Imo State, and suggests that interventions must address not only initial enrollment but also retention and completion. The relatively low ratings for items about primary education balance (mean=3.38) and government policy effectiveness (mean=2.76) are concerning.

The perception that primary education is not balanced suggests that gender gaps emerge early, challenging assumptions that disparities appear only at higher levels. The strong perception that government policies have been ineffective in reducing imbalance (mean=2.76) corroborates Addeh's (2024) observation about implementation deficits in Nigeria's educational policies. This finding suggests that policy frameworks alone are insufficient without effective implementation and enforcement.

The findings reveal strong agreement (cluster mean=4.00) that gender-based educational imbalance has significant negative consequences for human capital development in Imo State. The highest-rated consequences relate to women's economic productivity (mean=4.24), loss of potential female entrepreneurs (mean=4.21), and limitations on the skilled workforce (mean=4.18). These findings align with human capital theory (Schultz, 1961; Becker, 1964) and with Nigerian research documenting the developmental benefits of female education (Agusiobo, 2018; Ahmed et al, 2021; Andrew et al, 2016). The strong agreement on economic consequences suggests that respondents recognize the tangible costs of gender-based educational imbalance for economic development.

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The finding that women's participation in community development is limited by education (mean=4.15) corroborates Attamah et al. (2020) and suggests that gender-based educational imbalance has consequences beyond individual economic outcomes, affecting community-level development processes. This finding supports arguments that gender equity in education is not merely a matter of individual rights but a development imperative. The finding that gender imbalance perpetuates poverty across generations (mean=4.12) suggests awareness of intergenerational transmission mechanisms.

This aligns with theoretical expectations that less-educated mothers have fewer resources to invest in their children's education and health, creating cycles of disadvantage. The significant negative correlation between educational imbalance and human capital development (r=-0.547) provides strong empirical support for the theoretical expectation that gender-based educational imbalance undermines human capital development. This finding suggests that efforts to promote human capital development in Imo State must address gender disparities in education as a priority.

5.0. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

This study investigated gender-based educational imbalance in Southeast Nigeria and its consequences for human capital development, with Imo State as the focal area. The findings lead to several conclusions. First, gender-based educational imbalance in Imo State is significant and multidimensional, affecting enrollment, retention, completion, and subject specialization. The imbalance is more pronounced in rural areas and among poor households, highlighting the inter-sectionality of gender with location and class.

Second, both socio-cultural and economic factors contribute significantly to gender-based educational imbalance. Socio-cultural factors, including gender bias, cultural norms assigning domestic roles to girls, and community valuation of marriage over education, are particularly influential. Economic factors, including household poverty, the cost of education, and gendered resource allocation decisions, also play important roles. The significant correlations between these factors and educational imbalance suggest that addressing the problem requires comprehensive interventions targeting both cultural and economic dimensions.

Furthermore, gender-based educational imbalance has significant negative consequences for human capital development in Imo State. The imbalance reduces women's economic productivity, limits the pool of skilled human resources, constrains entrepreneurship, perpetuates poverty across generations, and limits women's participation in community development. The significant negative correlation between educational imbalance and human capital development indicates that gender disparities in education are not merely a social justice issue but a development constraint. In addition, the findings support Feminist Theory's explanation of how patriarchal structures perpetuate gender inequalities.

The cultural norms, gender bias, and valuation of marriage over education documented in this study reflect patriarchal values that privilege male activities and attributes. These patriarchal structures shape educational opportunities in ways that disadvantage females, with consequences that extend to

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human capital development. Finally, the findings suggest that current policy interventions have been perceived as ineffective in reducing gender-based educational imbalance. This perception, combined with the persistence of imbalance despite policy frameworks, indicates a need for more effective implementation strategies and possibly different approaches to addressing the problem. The gender-based educational imbalance in Imo State is a significant problem with serious consequences for human capital development. Addressing this problem requires comprehensive interventions that address socio-cultural and economic factors simultaneously, with particular attention to the most disadvantaged groups.

3.2. Recommendations

Based on the findings of this study, the following recommendations are made:

1. Government and policymakers' should strengthen implementation and enforcement of existing policies on universal basic education and gender equity in education. The perception that government policies have been ineffective suggests a need for better monitoring, enforcement, and accountability mechanisms.

2. Government should increase investment in girls' education through targeted interventions including scholarships, conditional cash transfers, and free education programs for girls from poor households. Given that girls from poor families are most affected. Economic support should be prioritized for this group.

3. Government and Policymakers should develop and implement gender-responsive education policies that address not only access but also retention, completion, and quality of education for girls. Policies should be informed by gender analysis and should include specific targets and indicators for monitoring progress.

4. Government should invest in educational infrastructure in rural areas to reduce urban-rural disparities in educational opportunities. The finding that imbalance is more pronounced in rural areas suggests that rural education requires special attention.

5. Families and parents should educate all children equally regardless of gender, recognizing that investment in girls' education yields returns for families, communities, and society. Parents should be informed about the benefits of girls' education for household welfare and children's future.

6. Parents should reduce domestic workloads for girls to allow adequate time for study and school participation. Household chores should be shared more equitably among family members.

7. Parents should prioritize education over early marriage for daughters, recognizing that educated girls contribute more to their families and communities in the long term.

Conflict Of Interest

The author declares that no conflict of interest exist in ths manuscript.

REFERENCES

Abubakar, H. A. (2023). Factors influencing girl-child education in Nigeria (A case study of Yobe state). *African Journal of Business and Economic Development*, 3(1), 119-134.

Addeh, E. (2022). *Despite Nigeria's out-of-school children crises, states fail to access N68bn UBEC fund*. This Day. Retrieved from https://www.thisdaylive.com.

Agusiobo, B. C. (2018). Education of the girl-child in Nigeria for a just, peaceful, harmonious society and sustainable development. *International Online Journal of Education and Teaching*, 5(4), 768-786.

Ahmad, M., (2023). Why am I different? Equal opportunities for education and effective participation of the girls in Nigeria. *Journal of Universal Education*, 3(1), 45-62.

Ahmed, M. M., & Yola, N. A. (2021). Girl-child education as a tool for sustainable development in Nigeria. *International Journal of Innovative Development and Policy Studies*, 9(4), 42-48.

Andrew, O., & Etumabo, A. G. (2016). The implications of girl-child education to nation building in the 21st century in Nigeria. *Global Journal of Human Social Science: G Linguistics & Education*, 16(3), 1-4.

Attamah, C. O. (2020). Women involvement in rural community development in Enugu North Senatorial Zone of Enugu state. *Traektoriâ Nauki = Path of Science*, 6(2), 4001-4007.

Bature, J. N., & Nwosu, N. U. V. (2015). Management of boy child school dropout in Southeast Nigeria: Issues and challenges. *Journal of Education Foundation*, 5, 78-94.

Enebe, N. O., (2021). *P*revalence and predictors of child labour among junior public secondary school students in Enugu, Nigeria: A cross-sectional study. *BMC Public Health, 21,* 1339.

Kolawole M. M. (2024). Mind the gap: The realities, complexities, and opportunities to advance f emale education in Nigeria. *Bildung und Erziehung*, 77(2), 156-172.

Kuteesa, K. N., (2024). Gender equity in education: Addressing challenges and promoting opportunities for social empowerment. *International Journal of Applied Research in Social Sciences*, 6(4), 631-641.

Magbadelo, J. O. (2019). Children's rights to education and wellbeing in Nigeria: An appraisal. World Affairs: *The Journal of International Issues*, 23(1), 112-127.

Nnama-Okechukwu, C. U., (2024). Challenges that limit educational opportunities for girls in Enugu State, Southeast Nigeria: Need for social work intervention. *Journal of Human Rights and Social Work*. https://doi.org/10.1007/s41134-024-00358-4.

Onalu, C., (2025). Prioritizing marriage over education: Factors associated with girl-child dropout from schools in rural areas of Enugu State, Nigeria. *Journal of Human Rights and Social Work. Advance online publication*. 5(2), 223-240.

Osigwe, E. I., & Agu, N. N. (2025). Influences of academic ability and gender on primary pupils'giftedness in Imo State, Nigeria. *South-East Journal of Research and Sustainable Development*, 8(1), 45-62.