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DEAF EXCLUSION IN PRODUCTIVE ACTIVITIES: IMPLICATION FOR HUMAN CAPITAL DEVELOPMENT IN ODOAKPU ONITSH NORTH

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ABSTRACT
This research examined the marginalisation of Deaf individuals in economic activities and its impact on human capital development in Anambra State, Nigeria. The study population consisted of 120 participants: 70 Deaf individuals, 20 family members, 20 employers, and 10 policymakers or representatives from non-governmental organisations. A descriptive mixed-methods approach was employed, utilising structured questionnaires and semi-structured interviews for data collection. Quantitative data were examined by descriptive statistics, whilst qualitative data underwent theme analysis. Findings indicated that 71.4% of Deaf respondents had obtained vocational or technical skills; however, only 50% effectively utilised these competencies in economic endeavours. Approximately 45.7% were economically inactive and reliant on familial or philanthropic assistance. Primary obstacles to economic involvement comprised communication challenges (85.7%), social stigma (78.6%), and restricted access to financial resources (60%). These limits impeded the efficient utilisation of human capital, elevated dependence ratios, and diminished total production within the state. The report asserts that the development of human capital must deliberately incorporate marginalised groups, including the Deaf, to attain sustained national growth. It advocates for the fortification of inclusive legislation, the augmentation of vocational and entrepreneurial opportunities, the assurance of workplace accessibility, and the promotion of public awareness to mitigate discrimination. Institutional and societal interventions are crucial for transforming the skills of Deaf individuals into productive participation that promotes economic development and social fairness in Nigeria.

Keywords: Deaf Exclusion, Productive Activities, Human Capital Development

Introduction

Enhancing human capital is crucial to national development and productivity (Gruzina et al., 2021). It involves providing people with education, training, health, and skills to contribute to economic and social growth. The productivity and competitiveness of a nation depend on its people's economic activity. In underdeveloped countries like Nigeria, many people, including the Deaf, are economically excluded (Dunn, 2024). Exclusion lowers national output and breeds dependency and poverty.

Human capital includes an individual's skills, knowledge, and competences that create economic value (Bareke et al., 2021; Leoni, 2025; Rahman & Akhter, 2021). Education, occupational skills, health, and flexibility are its main components. These factors help people find work (Bykova et al., 2024). Human capital gives people the tools to succeed, innovate, and create riches. Disability discrimination reduces the country's talent pool, hurting inclusive growth (Anzari et al., 2024). Inclusive human capital development allows everyone, regardless of disability, to learn and use skills, promoting social cohesion, poverty reduction, and sustainable development (Achmad, 2023; Tinta & Kolanisi, 2023).

Despite inclusion efforts, Deaf Nigerians face social and institutional barriers to education, employment, and entrepreneurship (Saaida & Saaidah, 2023). Discrimination, limited occupational training, communication hurdles, and societal prejudice prevent many from turning their skills into economic independence. The result is dependency, low self-esteem, and underutilisation of national human potential.

Deaf people's absence from productive economic activities threatens Nigeria's human capital development (OBIZUE & ENOMAH, 2025). The absence of employment and business opportunities makes training and education unprofitable despite large investments. Many qualified Deaf people are unemployed, increasing dependency ratios and decreasing the active labour force. Wasted human potential and increased economic burden hinder national advancement. The economic effects of Deaf exclusion on human capital development in Nigeria have not been adequately studied, thus this paper addresses the gap. The study used the following questions to obtain datat: How does the exclusion of Deaf individuals affect human capital development in Nigeria? In what ways does Deaf exclusion influence dependency and social welfare expenditure? What institutional, financial, and social factors contribute to the economic marginalisation of Deaf individuals? What are the potential outcomes of inclusive participation of Deaf individuals in national development?

This study will help policymakers understand the economic effects of excluding Deaf people from the workforce and develop inclusive policies to improve employment, vocational training, and entrepreneurship for hearing-impaired people. It would highlight workplace accessibility and communication support, tying national development objectives to the Sustainable Development Goals (SDGs), particularly Goal 8 on "Decent Work and Economic Growth."

The research will help educational planners and administrators realise the need for inclusive curricula and practical training programs for Deaf students to teach them job skills. It would encourage sign language interpretation, specialised support, and adaptable technologies in schools and vocational centres to improve Deaf learning and employment. Families will realise the need of helping Deaf members learn skills and become financially independent. If Deaf people know their economic rights and potential contributions, they will be stronger. This will help campaigning for equal employment opportunities and Deaf progress.

This research will inform disability inclusion, human capital development, and economic participation studies. It adds to the literature on disability studies and economic growth by suggesting ways nations might use marginalised people's potential. This paper explores Nigeria's Deaf marginalisation from productive and economic activities and its effects on human capital development. This will explore Deaf education, vocational training, employment, and entrepreneurship issues. The study may use regional or institutional sample due to a lack of nationwide Deaf employment statistics. The results will provide a complete picture of the country's position.

Review of Related Literature

Human capital development denotes the process of providing individuals with the education, skills, knowledge, health, and competencies required to augment their productivity and economic potential (Sairmaly, 2023). It is founded on the principle that individuals are valuable assets whose skills may be used to produce both personal and communal prosperity. Human capital is essential economically as it directly affects worker productivity, innovation, and the ability for technological progress. Nations with advanced human capital experience enhanced economic growth, superior social welfare, and heightened competitiveness in the global marketplace (Vîrjan et al., 2023). Conversely, excluding specific communities, such as the Deaf , from meaningful engagement in skill acquisition and employment leads to squandered potential and constrains the overall contribution of human resources to national development. Investments in education, vocational training, healthcare, and inclusive policies are crucial to enable all individuals, including those with disabilities, to contribute successfully to the productive economy. Productive activities are economic endeavors that convert skills, effort, and resources into goods, services, or riches that foster society advancement (Sairmaly, 2023). These activities encompass formal employment, entrepreneurship, vocational trades, agricultural output, and several other income-generating endeavors. Employment opportunities function as the principal means by which human capital is employed, enabling individuals to leverage their knowledge and skills to create economic value. Access to productive activities for the Deaf population is frequently constrained by communication difficulties, societal prejudices, and insufficient adapting technologies. The absence of inclusion in the job market diminishes personal economic autonomy and elevates society dependency ratios, thus imposing more financial strains on families and governments (Green & Nweke; Standing, 2022). Consequently, comprehending productive activities and employment prospects is essential for tackling human resource underutilization within marginalized populations.

Disability denotes physical, sensory, or cognitive limitations that restrict an individual's engagement in social, economic, and political activities (Gutterman, 2023). Deafness is a sensory handicap that impairs hearing, and when coupled with speech problems, it presents considerable communication obstacles that impact education, job, and social integration. Individuals with hearing and speech impairments encounter socio-economic isolation, stigmatization, and restricted access to vital services and productive possibilities. The failure to communicate proficiently in traditional workplace environments sometimes results in underemployment or total unemployment, relegating numerous Deaf individuals to the status of economically inactive dependents (Sari et al., 2024). This exclusion has significant ramifications for human capital development, as it hinders nations from utilizing the abilities, creativity, and labor potential of this demographic, hence diminishing overall economic efficiency and social equality.

The Deaf community has historically faced marginalization in numerous nations, especially in environments where disability rights are inadequately upheld and knowledge is little (Mahan, 2024). In Nigeria and other developing nations, this exclusion is evident in restricted access to vocational training, biased hiring practices, and insufficient workplace accommodations, including sign language interpreters and adaptive technologies. Marginalization diminishes the opportunity for the Deaf to engage meaningfully in productive endeavors, so excluding them from the labor market and economic assessment (Bernal Castro, 2025). As a result, families and governments incur heightened societal costs due to dependency, while society forfeits the potential advantages of a more inclusive workforce. Comprehending the mechanisms and ramifications of such exclusion is essential for formulating interventions that improve economic participation and maximize human capital development.

Review of Related Empirical Studies

Investigation career prospects for individuals with impairments in Nigeria, emphasized institutional obstacles to labor inclusion for Deaf and physically challenged persons (Sinha & Kumar, 2024). The research revealed that insufficient access to training and biased employment practices markedly restricted their economic participation.

The study, however informative, did not directly examine the economic ramifications of exclusion on national human capital development, nor did it concentrate just on the Deaf community. This research will tackle these deficiencies by correlating Deaf exclusion with human capital development, assessing the impact of marginalization on national productivity and dependency ratios, and offering specific recommendations for inclusive economic engagement.

Dong, et al, (2023) Examined job issues encountered by Deaf individuals in the United States, noting communication barriers, insufficient workplace accommodations, and societal stigma as significant impediments. The research highlighted the economic and social ramifications of underemployment among the Deaf community.

The study's backdrop, while broad, pertains to industrialized countries, where social welfare systems and legislative frameworks contrast with those of emerging nations such as Nigeria. Consequently, the findings cannot be entirely extrapolated to the Nigerian situation. This research will contextualize analogous difficulties in Nigeria, analyzing structural, cultural, and economic impediments specific to emerging nations. It will suggest pragmatic measures for incorporating Deaf individuals into productive endeavors, thereby augmenting national human capital.

The examined literature demonstrates a distinct correlation between human capital development and inclusive engagement in productive endeavors. Research indicates that the marginalization of Deaf individuals from economic possibilities leads to unused competencies, heightened reliance, and diminished national productivity (Klein, 2021). Theoretical frameworks, such as Human Capital Theory and Social Inclusion Theory, offer a conceptual foundation for comprehending the economic and social ramifications of exclusion. Empirical research, both domestic and global, emphasizes systemic obstacles while revealing deficiencies in resolving the economic ramifications in developing nations. This study aims to address these deficiencies by examining the Nigerian situation and proposing strategies to augment the contributions of Deaf individuals to human capital development.

Theoretical Framework

Human Capital Theory (Becker, 1964)

Gary Becker's Human Capital Theory (1964) posits that education, training, and health enhance individuals' productivity and economic value. It perceives human resources as assets that may generate revenue when cultivated, much to physical capital. The approach links individual development to national advancement and productivity via education and skill acquisition. This research employs the notion within the framework of Deaf training, education, and skill acquisition as investments in human capital. When these persons are excluded from employment or entrepreneurship due to communication hurdles, stigma, or institutional neglect, the nation fails to reap the expected advantages from such investments. The insufficient utilisation of proficient Deaf individuals diminishes human capital output and increases the dependency ratio. A theoretical framework clarifies the study's primary variables: The advancement of human capital is significantly affected by skill acquisition and economic engagement. Critics assert that Becker's theory neglects social and institutional barriers, such as prejudice and systemic exclusion, that may hinder skilled workers' productivity. This constraint renders it advantageous to investigate the Deaf community, as structural impediments hinder their full participation despite their training.

Social Inclusion Theory (Silver, 1994)

Hilary Silver (1994) proposed the Social Inclusion Theory, which asserts that all individuals, regardless of disability, gender, or socioeconomic background, should have equitable access to resources and opportunities within society. The approach underscores that exclusion is not merely individual but also structural, stemming from societal norms, institutional practices, and policy inadequacies. Despite criticism on its lack of definitive enforcement mechanisms and measurable indicators, the framework is vital for addressing systemic inequalities.

This research claims that Deaf exclusion exemplifies social and economic injustice, hindering equality and societal progress. It augments Human Capital Theory by asserting that individual productivity relies on institutional access and inclusion. Becker (1964) discusses the creation of value through education and skills, whereas Silver (1994) examines the reasons this value remains unrecognised in the presence of systemic discrimination. Integrating Deaf individuals into productive positions augments national human capital and promotes equity, social cohesion, and sustainable development.

Both hypotheses guided the construction of the research apparatus and the interpretation of the results. The Human Capital concept informed the development of questionnaire items addressing the education, skill acquisition, and employment outcomes of Deaf individuals. This enabled the determination of how these factors influence economic productivity. The Social Inclusion paradigm impacted communication barriers, social stigma, workplace adjustments, and policy implementation, enabling the assessment of institutional and attitudinal obstacles to participation.

These frameworks provided a dual analytical perspective: Human Capital Theory clarified the adverse effects of underutilising Deaf abilities on economic advancement, while Social Inclusion Theory explained the processes by which systemic exclusion perpetuates this underutilisation. This conceptual integration reinforces the study's claim that sustained human capital development in Nigeria requires the inclusion of social structures to ensure that investments in the Deaf population yield equitable and productive results.

Methodology

The research employed a descriptive design utilizing a mixed-methods approach, integrating quantitative and qualitative techniques. The study was conducted in Anambra State, Nigeria, which has a significant population of Deaf individuals and accessible special schools and vocational facilities in Odoakpu, Onitsha South LGA of Anambra State. The study population consisted of Deaf adults aged 18 and older who had undergone official training, along with their family members, employers, and representatives from governmental and non-governmental groups engaged in disability inclusion. A total of 120 participants were intentionally selected: 70 Deaf persons, 20 family members, 20 employers, and 10 policymakers or NGO leaders. Purposive and stratified sample methods were utilized to guarantee that participants offered educated insights about training, employment, and economic engagement. Data were gathered through structured surveys to get quantifiable information and semi-structured interviews to investigate personal experiences, with sign language interpreters facilitating communication for Deaf individuals. Quantitative data were examined through descriptive statistics, encompassing frequencies, percentages, and mean scores, and qualitative data from interviews were subjected to thematic analysis to discern recurring patterns and insights related to exclusion and the underutilization of human capital. Ethical considerations were rigorously upheld: informed consent was acquired from all participants, confidentiality and anonymity were guaranteed, and participants' right to withdraw at any moment was honored. Special accommodations, including interpreters and simpler communication aids, were implemented to guarantee equitable participation. Approval was secured from pertinent ethics committees to ensure compliance with study standards and safeguard the rights and dignity of all participants.

Data Presentation and Analysis

Table 4.1: Demographic Characteristics and Economic Participation of Deaf Respondents (N = 70)

Variable	*Category*	*Frequency (f)*	*Percentage (%)*
Age (years)	18–30	35	50.0
	31–45	25	35.7
	46+	10	14.3
Gender	Male	42	60.0
	Female	28	40.0
Educational Level	Secondary School	30	42.9
	Vocational/Technical Training	25	35.7
	Tertiary Education	15	21.4
Employment Status	Formal Employment	20	28.6
	Entrepreneurship/Small Business	18	25.7
	Economically Inactive/Dependent	32	45.7
Skill Acquisition	Yes	50	71.4
	No	20	28.6
Skill Utilization	Fully Utilized	25	50.0*
	Underutilized	25	50.0*
Barriers to Inclusion	Communication Challenges	60	85.7
	Social Stigma	55	78.6
	Limited Access to Finance	42	60.0
	Lack of Workplace Accommodation	16	22.9

Table 4.1 shows the demographic and economic attributes of the seventy Deaf respondents. Fifty percent (50%) of individuals were aged 18 to 30, thirty-five percent (35.7%) were aged 31 to 45, and fourteen percent (14.3%) were aged 45 or over. Sixty percent of respondents were male, while forty percent were female. Regarding education, 42.9% of the population completed secondary schooling, 35.7% obtained vocational or technical training, and 21.4% pursued higher education. The employment study's findings indicated that 28.6% of individuals were engaged in formal employment, 25.7% were self-employed or running a small business, and 45.7% were not employing others. Seventy-one percent of survey participants reported acquiring new skills, with tailoring, information and communication technology (ICT), carpentry, and cosmetology identified as the most prominent. Out of the fifty persons who underwent training, only twenty-

five (fifty percent) applied their abilities to establish lucrative enterprises. The primary barriers to participation identified were communication challenges (85.7%), social stigma (78.6%), limited access to financing (60%), and inadequate workplace accommodations (22.9%). A contradiction emerges from these findings: while substantial evidence of significant educational and vocational progress among deaf individuals, this advancement is not mirrored in comparable economic participation.

The investigation employed descriptive statistics; however, inferential tests may yield additional insights into the relationships among education, skill utilisation, and work status. The analysis structure is outlined in Table 4.2

Table 4.2: Inferential Summary of Key Relationships among Variables (N = 70)

Hypothesis / Relationship Tested	***Statistical Test***	***Variables Involved***	***Expected Outcome / Interpretation***
H_1: Educational level significantly influences employment status among Deaf respondents.	Chi-square test of independence (χ^2)	Educational Level × Employment Status	Higher educational attainment is expected to correlate positively with formal employment participation.
H_2: Skill acquisition is associated with higher economic participation.	Chi-square test of independence (χ^2)	Skill Acquisition (Yes/No) × Economic Participation (Active/Inactive)	Those who have acquired skills are more likely to be economically active.
H_3: Gender differences affect skill utilisation rates.	Independent-samples t-test	Gender × Skill Utilisation Index	No significant gender difference expected if training access is equitable.
H_4: Communication challenges are correlated with underemployment.	Pearson correlation (r)	Communication Barrier Score × Employment Level	Strong positive correlation anticipated: higher communication barriers correspond to lower employment.
H_5: Access to finance predicts entrepreneurial engagement.	Logistic regression	Access to Finance (predictor) → Entrepreneurship Participation (outcome)	Limited financial access significantly reduces likelihood of entrepreneurship among Deaf individuals.

Discussion of Findings

The results reveal that there is still a gap between putting money into individuals and getting them to work in the economy. Although 71.4% of persons had undergone vocational or technical training, fewer than 50% effectively applied their skills. According to Human Capital Theory (Becker, 1964), investing in education should lead to higher production and income. The inadequate translation of training into substantive work in this study suggests that institutional barriers, such as a lack of interpreters, biassed recruiting processes, and financial exclusion, reduce the expected economic returns on human capital investment.

That 45.7% of deaf respondents are unemployed illustrates their continued exclusion from the workforce. Neven, & Ectors, (2023). found that individuals with disabilities rely on society due to constraints imposed by social and structural factors. In Anambra, families are compelled to extend their resources to support unemployed relatives, while government social welfare expenditures are escalating. The inefficiency of this circumstance leads to the forfeiture of resources that may be allocated for expansion. From a macroeconomic standpoint, the underemployment of skilled Deaf individuals signifies a decline in overall labour productivity and national output capacity.

The predominant issues are stigma (78.6%) and communication challenges (85.7% of the total). This aligns with the Social Inclusion Theory (Clark,1999), which posits that participation is shaped by institutional norms and the prevailing power relations within such institutions. The reluctance of employers to hire deaf individuals, whether stemming from a shortage of interpreters or financial constraints, exemplifies a systemic failure in the implementation of inclusion legislation. Policymakers recognised the presence of inclusion frameworks; nevertheless, these frameworks are hindered by insufficient monitoring and enforcement, resulting in an institutional gap that sustains marginalisation notwithstanding legislative protections.

These findings are consistent with global studies. Farovitch, et al, (2023) found that communication barriers and negative attitudes make it hard for Deaf people to get work in the United States. Green, (2025); Green, & Gree, (2025) found similar problems in Nigeria. This study offers novel regional evidence by quantifying skill underutilisation and demonstrating its direct relationship with human capital inefficiencies and dependency ratios in Anambra State. The integration of global and local data confirms that Deaf exclusion is structural rather than individualised.

Bridging the gap between training and application requires many strategies. Policymakers need to make workplace modifications mandatory, make sign-language integration a part of the system, and link vocational training to structured internship or funding programs. Employers should receive tax breaks or subsidies for hiring Deaf people. These measurements will transform educational attainment into measurable productivity, so actualising the tenets of Human Capital Theory, while fostering equity as advocated by Social Inclusion Theory.

The descriptive and proposed inferential analyses reveal that Deaf individuals in Anambra State possess the necessary human capital for economic participation but face structural, cultural, and institutional obstacles. Without targeted implementation of inclusion policies and processes that link training to actual employment, investments in Deaf skill development will continue to yield minimal economic benefits and sustain dependency. For growth to be fair and long-lasting, it is important to improve the responsibility, accessibility, and financial structures of institutions.

Conclusion

This study investigated the marginalisation of deaf individuals from economic activities in Anambra and its impact on human capital development. Despite substantial financial investment in education and vocational training, fewer than fifty percent of participants successfully leveraged their newly acquired skills to secure employment. Seventy-four percent possess job-relevant competencies. Obstacles to communication, societal stigma, financial exclusion, and institutional resistance hinder the transformation of human capital investment into productive engagement, rather than a deficiency in competence. The results validate the Human Capital Theory (Becker, 1964) by demonstrating that only conducive circumstances for participation can yield economic advantages from education and skill enhancement. Institutional and cultural exclusion impede deaf individuals from securing gainful employment, hence constraining both personal and national development, which corroborates the Social Inclusion Theory.

The implications of the policy and its practical effects are substantial. Development must extend beyond training to ensure inclusivity. Structures must be modified to facilitate greater participation for all individuals. Policies must require sign-language interpretation, supervision of inclusive employment frameworks, and financial resources for Deaf entrepreneurs, such as accessible loans and business grants. The government, businesses, and advocacy organisations must collaborate to eliminate prejudice against the Deaf and optimise human resources. This study's descriptive research methodology constrains causal assumptions regarding employment outcomes, skill acquisition, and educational attainment. Subsequent research ought to employ inferential and longitudinal methodologies to investigate these connections, gendered or geographical differences, and the enduring effects of inclusive policies on economic output.

In conclusion, the effective development of human capital in Nigeria necessitates the inclusion of all individuals and the identification and utilisation of the skills of every person, including the deaf. If policies are unenforced, institutions remain unaccountable, and public attitudes remain unchanged, investments in human capital will be squandered, perpetuating dependency and obstructing the nation's sustainable and fair economic development.

Recommendations

1. The government and pertinent organizations must formulate and execute policies that guarantee the inclusion of Deaf individuals in all human capital development projects. Such policies must require accessibility, equitable opportunity, and support systems in education, training, and job programs to optimize skill use and economic contribution. Employers and private sector entities should be incentivized to proactively recruit Deaf individuals and furnish workplace accommodations, including sign language interpreters and assistive devices. Furthermore, initiatives that facilitate Deaf entrepreneurship, including microloans, business training, and mentorship, ought to be prioritized to promote self-employment and economic autonomy.
2. Government agencies and non-governmental groups should cooperate to offer financial, technical, and infrastructural assistance to Deaf individuals. This encompasses financing vocational initiatives, establishing inclusive company incubators, and providing grants or subsidies that facilitate the constructive economic participation of Deaf individuals.
3. Awareness efforts must be conducted to inform society about the capabilities and contributions of Deaf individuals. Advocacy programs can diminish stigma, confront discriminatory practices, and promote social acceptability, so cultivating a more favorable climate for inclusion in workplaces and economic activities.
4. Educational institutions ought to enhance and broaden vocational and inclusive education programs for individuals who are Deaf. This encompasses the provision of specialized curricula, qualified instructors, accessible learning resources, and practical skill-based training that corresponds with labor market requirements, guaranteeing that developed human capital may be efficiently employed in productive endeavors.

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