

Innovations

Beyond Formal Education: Investigating the Implications of Limited Formal Education of Igbo Apprentices in the Era of Globalization on the Sustainability of SMEs in Southeast Nigeria

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Abstract

The study examined the impact of lack of formal education of Igbo apprentices on the sustainability of Small and Medium Enterprises (SMEs) in Southeast Nigeria. The study adopted a survey research design with a total population of 650 local SMEs engaged in Igbo Apprenticeship Business Model. Census sampling technique was used, which meant that the entire population was used. The study adopted stratified sampling technique to reach out to the different states in the Southeast Region where these local SMEs engage in their various enterprises. Regression analysis was used for data analysis at 5% level of significance. Findings revealed that Lack of Formal Education has a significant negative impact on the Sustainability of SMEs. There should be partnerships between the government, educational institutions, and the private sector to create specialized training centers that offer both formal education and apprenticeship training. These centers should be equipped with modern facilities and staffed by experienced educators and industry professionals to ensure high-quality training of the apprentices.

Keywords: *Lack of Formal Education, Igbo Apprenticeship, Sustainability of SMEs*

1.0 Introduction

In the dynamic era of globalization, the sustainability of Small and Medium Enterprises (SMEs) in Southeast Nigeria is crucial for economic growth, innovation, and employment (Emeali, Agbaeze, Oganeze&Achilike, 2023). However, the region faces a unique challenge due to the limited formal education of Igbo apprentices, which affects the sustainability of SMEs (Ajuzieogu&Onyishi, 2019). The Igbo apprenticeship system, deeply rooted in cultural traditions, historically provided a pathway to entrepreneurship for individuals with limited formal education (Onyishi&Ugwu, 2017). Yet, globalization and technological advancements present new hurdles for this traditional system (Okeke &Akujobi, 2020).

This research aims to explore how the educational gap among Igbo apprentices impacts their ability to adapt to changing market dynamics, integrate technological innovations, and manage SMEs sustainably in a competitive environment (Smith, 2019). It also seeks to identify the challenges faced by SMEs in Southeast Nigeria due to this gap and the strategies employed by Igbo apprentices and SMEs to mitigate its effects (Ajuzieogu&Onyishi, 2019). By synthesizing perspectives from academia, industry practitioners, and community stakeholders, this study endeavors to contribute to the discourse on inclusive economic development and traditional knowledge systems' role in contemporary entrepreneurial landscapes (Onyishi&Ugwu, 2017). Through a comprehensive analysis of the implications of limited formal education among Igbo apprentices, this research aims to inform evidence-based strategies for enhancing SME sustainability in Southeast Nigeria (Okeke &Akujobi, 2020).

The significance of SMEs in driving economic development cannot be overstated. These enterprises are often considered the backbone of economies, contributing significantly to employment generation, income generation, poverty alleviation, and fostering innovation (SME Development Agency of Nigeria, 2020). In Nigeria, SMEs play a crucial role in the economy, accounting for a substantial portion of employment and GDP. However, SMEs in Southeast Nigeria face unique challenges, particularly concerning the educational background of their workforce.

The Igbo apprenticeship system is deeply ingrained in the socio-cultural fabric of Southeast Nigeria. It is a traditional system of skill acquisition and entrepreneurship that has been passed down through generations. Historically, it provided a means for individuals, especially those with limited formal education, to acquire practical skills and eventually establish their businesses (Onyishi&Ugwu, 2017). The system operates on the principles of mentorship, practical learning, and communal support, with apprentices learning from experienced masters within various trades.

Despite its historical efficacy, the Igbo apprenticeship system now faces challenges in the era of globalization. The rapid pace of technological advancement and the interconnectedness of global markets have transformed the business landscape,

necessitating new skills and knowledge. In this context, the limited formal education of Igbo apprentices poses significant implications for the sustainability of SMEs in Southeast Nigeria.

One of the primary concerns is the ability of Igbo apprentices to adapt to changing market dynamics. Globalization has led to increased competition and the need for businesses to innovate and diversify their products and services (Smith, 2019). However, Igbo apprentices with limited formal education may struggle to grasp market trends, analyze consumer preferences, and develop innovative solutions. This lack of adaptability can hinder the growth and competitiveness of SMEs in the region.

Furthermore, the integration of technological innovations presents a challenge for Igbo apprentices with limited formal education. In today's digital age, technology plays a central role in business operations, from communication and marketing to production and distribution (Okeke & Akujuobi, 2020). SMEs that fail to embrace technology risk being left behind, unable to compete with more technologically savvy competitors. However, Igbo apprentices with limited formal education may lack the necessary digital literacy skills to effectively leverage technology in their businesses.

Moreover, the limited formal education of Igbo apprentices can impact the overall sustainability of SMEs in Southeast Nigeria. Without a strong educational foundation, apprentices may struggle with basic business management principles such as financial management, marketing strategies, and human resource management (Ajuzieogu & Onyishi, 2019). This can lead to inefficiencies, mismanagement, and ultimately, business failure. Additionally, SMEs may face challenges in accessing funding and investment opportunities due to the perceived risk associated with their workforce's educational background.

Despite these challenges, there are strategies that Igbo apprentices and SMEs can employ to mitigate the effects of limited formal education. One approach is to leverage the strengths of the Igbo apprenticeship system, such as its emphasis on practical learning and mentorship. Apprentices can seek guidance from experienced mentors within their trade and actively engage in hands-on learning experiences (Onyishi & Ugwu, 2017). Additionally, SMEs can invest in training and capacity-building initiatives to enhance the skills and knowledge of their workforce. Furthermore, partnerships between SMEs, educational institutions, and government agencies can help bridge the educational gap and provide access to resources and support services. For example, vocational training programs tailored to the needs of SMEs can equip apprentices with the skills and knowledge required to succeed in today's business environment (SME Development Agency of Nigeria, 2020). Similarly, government policies that promote entrepreneurship education and

provide incentives for SMEs to invest in workforce development can facilitate sustainable growth and innovation within the sector.

Thus, this limited formal education of Igbo apprentices poses significant challenges for SME sustainability in Southeast Nigeria. However, with the right strategies and interventions, these challenges can be overcome. By leveraging the strengths of the Igbo apprenticeship system, investing in training and capacity-building initiatives, and fostering partnerships between stakeholders, SMEs can thrive in the era of globalization. Ultimately, addressing the educational gap among Igbo apprentices is essential for ensuring inclusive economic development and harnessing the full potential of SMEs in Southeast Nigeria. Thus, this research study aimed to address one research question:

How does lack of formal education of Igbo apprentices impact the sustainability of Small and Medium Enterprises (SMEs) in Southeast Nigeria?

By addressing the research question, this study seeks to assess the impact of formal education level on SME sustainability. It seeks to understand how higher levels of formal education among apprentices contribute to greater SME sustainability, as measured by revenue growth, profitability, and longevity. The contribution of this study to the existing body of knowledge lies in its exploration of the relationship between formal education level and SME sustainability within the specific context of Southeast Nigeria, focusing on the Igbo apprenticeship system. By conducting a systematic investigation into this relationship, the study aims to provide valuable insights into the factors contributing to SME sustainability in Southeast Nigeria. It seeks to bridge the gap in the literature by elucidating the influence of formal education level on key indicators of SME sustainability, such as revenue growth, profitability, and longevity. Moreover, by focusing on Igbo apprentices within the context of the traditional apprenticeship system, the study contributes to a deeper understanding of the unique dynamics at play in this region. The findings of this study have the potential to inform policymakers, business owners, and stakeholders involved in SME development initiatives about the importance of investing in education and skill development among apprentices. By highlighting the positive impact of higher formal education levels on SME sustainability, the study could encourage efforts to enhance educational opportunities and support mechanisms for apprentices within traditional apprenticeship systems. Ultimately, the study aims to contribute to the promotion of inclusive economic development and entrepreneurship in Southeast Nigeria. This led the researchers to develop this hypothesis:

Hypothesis (H0): Lack of formal education of Igbo apprentices does not have any significant impact on the sustainability of Small and Medium Enterprises (SMEs) in Southeast Nigeria.

2.0 Literature Review

The Igbo Apprenticeship System (IAS), a traditional business incubation mechanism, has been recognized for its significant role in fostering entrepreneurship and generating employment among the Igbos in Nigeria. Rufai, Assim, and Iroh (2019) highlighted the system's potential to address Nigeria's unemployment issues despite its declining attractiveness to youth, largely due to misconceptions about its relevance for those unable to pursue formal education. The authors advocated for modernizing IAS to create an innovative ecosystem, combining general and apprenticeship education. Umemezia and Ojukwu (2023) similarly emphasized the need for an Africanised entrepreneurial curriculum, proposing the integration of IAS principles into educational institutions to better align with Africa's identity and address the continent's persistent poverty and unemployment. The historical context of IAS was explored by Ifeanyi, Onwuchekwa, and Ochuba (2019), who noted its effectiveness in post-civil war employment generation in Southeast Nigeria, yet identified contemporary challenges such as inadequate labor agreements and educational opportunities. They recommended legislative reforms and educational enhancements to revitalize the system. Iwueke, Alhassan, and Oparaku (2020) examined the decline in IAS participation due to poor mentorship and educational constraints, suggesting that both apprentices and masters require adequate educational foundations and mentoring skills to ensure business sustainability. Nnoyelu and Onyeizugbe (2020) provided an ethnographic analysis, revealing a significant decline in IAS appeal due to low educational levels and suggesting a hybrid model integrating traditional and modern elements to maintain youth engagement and improve skill acquisition. Collectively, these studies underscore the need to reform and modernize IAS, incorporating structured educational frameworks and legal protections to enhance its effectiveness in the contemporary economic landscape.

3.0 Methodology

3.1 Research Strategy

For this study, a quantitative analytical approach was favored. Bhandari (2023) defines quantitative research as a methodical process of gathering, organizing, and analyzing numerical data to discern patterns, trends, averages, predict outcomes, test causal relationships, and generalize findings. This approach is widely utilized across natural and social sciences such as psychology, economics, sociology, management, and marketing. In contrast, qualitative research deals with non-numerical data like text, video, or audio.

To fulfill the study's objectives, data were collected via structured Likert scale questionnaires from experienced rural entrepreneurs in villages across the southeastern region, known for their expertise in their respective enterprises. Experts, as described by Doringer (2021), possess substantial knowledge in specific areas. Schoonenboom (2023) highlights that while quantitative research can gauge differences in outcomes, it often requires supplementary tools like questionnaires to grasp the subjective experiences of participants.

This study adopted a multimethod-quantitative approach, employing structured Likert scale questionnaires administered online via Google Forms. Quantitative methods are versatile, adaptable for descriptive, correlational, or experimental studies. Descriptive research organizes variables meaningfully, correlational research examines relationships between variables, and experimental research investigates causal relationships. Both correlational and experimental methodologies allow hypothesis testing and prediction using statistical tools.

This study, being correlational and quasi-experimental, found the quantitative approach suitable. Its strengths include standardized data collection, facilitating replication, enabling direct comparisons across diverse settings, accommodating large sample sizes, and supporting hypothesis testing.

3.2 Data Collection

During field surveys across five southeastern states (Abia, Anambra, Ebonyi, Enugu, and Imo), respondents were identified through trade unions, with additional input from retired business owners with expertise in rural enterprises. Only volunteers were sampled for ethical reasons, using convenience and purposeful sampling techniques. Specifically, the study focused on SMEs engaged in the traditional apprenticeship business model of the Igbo people of southeast Nigeria.

To meet the study's objectives, 650 SMEs practicing the traditional apprenticeship model were surveyed, with 130 from each state. The research instrument underwent validation for face and content validity, achieving reliability with Cronbach's Alpha statistic exceeding 70%. Primary data collected were statistically analyzed using regression analysis with SPSS.

4.0 Data Analysis, Results/ Implication and Discussion

4.1 Data Analysis

H0: Lack of Formal Education of Igbo apprentices does not have any significant impact on the Sustainability of Small and Medium Enterprises (SMEs) in Southeast Nigeria.

Table 4.1.1 Model Summary for Formal Education and Sustainability of SMEs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.704 ^a	.496	.495	1.042

a. Predictors: (Constant), Lack of Formal Education

Table 4.1.2 ANOVA^a for Formal Education and Sustainability of SMEs

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	692.301	1	692.301	637.609	.000 ^b
	Residual	703.584	648	1.086		
	Total	1395.885	649			

a. Dependent Variable: Sustainability of SMEs
 b. Predictors: (Constant), Lack of Formal Education

Table 4.1.3 Coefficients^a for Formal Education and Sustainability of SMEs

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.459	.087		63.027	.000
	Lack of Formal Education	-.751	.030	-.704	-25.251	.000

a. Dependent Variable: Sustainability of SMEs

In the above coefficient table for Lack of Formal Education and Sustainability of SMEs, standardized coefficients (beta) are referred to as beta weights and are presented in the "beta" column. These weights indicate how much the outcome variable increases (measured in standard deviations) when the predictor variable is increased by one standard deviation, assuming other variables in the model remain constant. Beta weights allow for ranking predictor variables based on their contribution to explaining the outcome variable. For instance, in this analysis, Lack

of Formal Education is shown to contribute -0.704 to explaining the variability in Sustainability of SMEs. Under the "T" and "Sig." columns, the analysis provides the t-value and p-value, respectively, which are used to test the hypothesis that the coefficient/parameter is 0 (i.e., the test of significance). Coefficients with p-values less than the chosen significance level (alpha), typically set at 0.05 (5%), are considered statistically significant. For instance, if the p-value (e.g., $p = .000$) is less than 0.05, it indicates statistical significance. Thus, in this model, as the p-value (.000) is less than 0.05, Task Variety is deemed statistically significant. Consequently, the null hypothesis is rejected, leading to the conclusion that Lack of Formal Education has a significant negative impact on the Sustainability of SMEs.

4.2 Results and Implication

4.2.1 Result:

The result of the study showed that lack of formal education of Igbo apprentices has a significant negative impact on the sustainability of Small and Medium Enterprises (SMEs) in Southeast Nigeria ($\beta = -0.704$); ($p < 0.05$).

4.2.2 Implications of the Result:

Given the findings of the study that lack of formal education among Igbo apprentices significantly negatively impacts the sustainability of SMEs in Southeast Nigeria ($\beta = -0.704$; $p < 0.05$), the following are five practical implications:

- i. **Increased Business Failure Rates:** SMEs in Southeast Nigeria are likely to experience higher failure rates due to apprentices' insufficient formal education. Without adequate skills in financial management, strategic planning, and modern marketing, these businesses struggle to maintain operations, leading to a reduced lifespan and higher business closure rates.
- ii. **Reduced Competitiveness:** The limited formal education of apprentices hampers their ability to innovate and compete effectively in the globalized economy. SMEs in the region may find it challenging to adopt new technologies, respond to market changes, and implement efficient business practices, resulting in a competitive disadvantage both locally and internationally.
- iii. **Limited Growth and Expansion:** SMEs may face growth stagnation as apprentices lack the strategic skills needed for business expansion. Formal education equips individuals with the ability to plan long-term, identify growth opportunities, and execute expansion strategies. The absence of these capabilities restricts business growth and limits potential market reach.

- iv. **Vulnerability to Market and Technological Changes:** SMEs relying solely on traditional apprenticeship methods without integrating formal education are more susceptible to market fluctuations and technological advancements. This vulnerability makes it difficult for these businesses to adapt to new economic conditions, adopt innovative practices, and remain relevant in a rapidly changing business environment.
- v. **Economic Development Implications:** The overall economic development of Southeast Nigeria is adversely affected due to the diminished sustainability of SMEs. SMEs play a critical role in job creation, income generation, and economic stability. The negative impact on SME sustainability translates to fewer employment opportunities, reduced economic growth, and lower contributions to the region's GDP.

4.3 Discussion of Findings

The study revealed a significant negative impact of limited formal education on SME sustainability. This aligns with findings by Rufai, Assim, and Iroh (2019), who noted that the declining attractiveness of the Igbo Apprenticeship System (IAS) stems from its perception as suitable only for those unable to pursue formal education. This perception detracts from IAS's potential to address unemployment, as youths increasingly view it as inferior to formal education, thereby limiting its effectiveness in fostering entrepreneurship and generating employment.

Limited formal education restricts apprentices' access to modern business practices, financial literacy, technological skills, communication abilities, and problem-solving capabilities. Rufai et al. (2019) emphasize the need to modernize IAS by integrating contemporary business practices, while Iwueke, Alhassan, and Oparaku (2020) stress the importance of a strong educational foundation for effective financial management. Without these skills, apprentices struggle with the adoption of essential digital tools and technologies, which are crucial for competitiveness in a global market. Furthermore, Umemezia and Ojukwu (2023) argue for an entrepreneurial curriculum that includes communication skills development, critical for negotiating and networking in today's business environment.

The negative implications for SME sustainability are profound. Limited financial literacy leads to resource mismanagement, poor technological skills create a technology gap, and weak communication abilities hinder negotiations and customer relations (Iwueke et al., 2020; Rufai et al., 2019). Additionally, without strong problem-solving skills, SMEs face operational inefficiencies, and difficulty in accessing funding restricts business expansion and innovation (Nnoyelu and Onyeizugbe, 2020). These issues culminate in SMEs lagging behind more educated

counterparts who can leverage modern business practices and technologies more effectively.

Adaptability to market changes and innovative capacity are also crucial for SME sustainability. Ifeanyi, Onwuchekwa, and Ochuba (2019) highlight the importance of adaptability and resilience, traits often fostered by formal education. The lack of these skills makes SMEs vulnerable to market fluctuations and economic downturns. Furthermore, Umemezia and Ojukwu (2023) stress that innovation and creativity are essential for business evolution, yet limited education stifles these capacities, leading to obsolescence and missed opportunities in global markets.

In conclusion, the study underscores the critical need to reform and modernize the IAS by integrating structured educational frameworks that combine traditional and contemporary elements. Legislative reforms and educational enhancements, as recommended by Ifeanyi et al. (2019), are essential to revitalize IAS and ensure it meets the demands of the globalized economy. This approach will address gaps such as insufficient access to modern business practices and poor financial literacy, ultimately enhancing the sustainability and growth of SMEs in Southeast Nigeria.

5.0 Conclusion and Recommendation

5.1 Conclusion:

Flowing from the findings, the study therefore concluded that the limited formal education of Igbo apprentices significantly hampers the sustainability of SMEs in Southeast Nigeria. The findings highlighted that apprentices lacking formal education struggle with critical business skills, such as financial literacy, strategic planning, and modern marketing techniques, which are essential in the globalized economy. This educational gap restricts their ability to innovate and compete effectively, leading to lower business survival rates. Additionally, the reliance on traditional apprenticeship methods without integration of formal education leaves these SMEs vulnerable to market changes and technological advancements. The study underscores the urgent need for policy interventions that promote the integration of formal education into the apprenticeship system. Enhancing the educational background of apprentices can equip them with the necessary skills to adapt, innovate, and sustain their businesses. Therefore, fostering a hybrid approach that combines traditional apprenticeship with formal education is crucial for the long-term viability of SMEs in the region. This strategy not only improves the competitiveness of these enterprises but also contributes to broader economic development in Southeast Nigeria.

5.2 Recommendations

Based on the findings of the study, five recommendations were put forward for enhancing sustainability of SMEs in Southeast Nigeria. This can be achieved by integrating formal education with traditional apprenticeship methods:

- i. **Curriculum Integration in Apprenticeship Programs:** Relevant regulatory agencies should develop and implement a hybrid curriculum that combines traditional apprenticeship training with formal education modules. This curriculum should cover essential business skills such as financial literacy, strategic planning, modern marketing techniques, and technology utilization. This approach will provide apprentices with a comprehensive education that addresses both practical and theoretical aspects of business management.
- ii. **Government and Private Sector Collaboration:** Foster partnerships between the government, educational institutions, and the private sector to create specialized training centers that offer both formal education and apprenticeship training. These centers should be equipped with modern facilities and staffed by experienced educators and industry professionals to ensure high-quality training.
- iii. **Policy Reforms to Support Educational Integration:** Advocate for policy reforms that mandate a minimum level of formal education for apprentices. This could include incentives for SMEs that enroll their apprentices in formal education programs or provide subsidies for apprentices to attend business courses. Such policies will encourage a systematic approach to skill development and ensure that apprentices receive a balanced education.
- iv. **Incorporation of Technology and Digital Skills Training:** Introduce digital literacy and technology training as a core component of the apprenticeship programs. This training should focus on how to leverage digital tools for business operations, marketing, and financial management. By equipping apprentices with these skills, SMEs will be better positioned to compete in the global market and adapt to technological advancements.
- v. **Continuous Professional Development and Mentorship Programs:** Establish continuous professional development (CPD) programs and mentorship networks for apprentices and SME owners. These programs should offer ongoing training opportunities, workshops, and mentorship from experienced business leaders and educators. CPD programs will help ensure that apprentices stay updated with the latest industry trends and best practices, fostering a culture of continuous improvement and innovation within SMEs.

Implementing these recommendations will help bridge the educational gap identified in the study, thereby enhancing the competitiveness and sustainability of SMEs in Southeast Nigeria.

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