English Language Proficiency and Digital Entrepreneurship in Nigeria: A Systematic Synthesis of Linguistic Barriers and Pathways to Inclusive Growth

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Abstract— The digital economy in Nigeria is expanding rapidly, yet its benefits are unevenly distributed across a linguistically diverse population of over 500 languages. This study synthesises existing empirical evidence to examine the role of English language proficiency as a catalyst for digital entrepreneurship and inclusive economic growth in the post-pandemic era. Drawing on a systematic synthesis of four empirical studies conducted across three geopolitical zones in Nigeria, the analysis reveals a strong positive correlation between English proficiency and entrepreneurship skills ($r = 0.86$, $r^2 = 0.74$), indicating that English language ability accounts for 74 percent of the variance in entrepreneurship skills. However, qualitative contextual data reveal significant exclusionary obstacles: 60 percent of entrepreneurs report ongoing difficulties with English communication, 66.7 percent struggle with digital language during online commerce, and over 60 percent of digital learners regularly avoid complex English content. The study finds that English proficiency is essential for accessing global digital markets, but a monolingual approach to English is not conducive to inclusive growth. The findings are interpreted through Vygotsky's Sociocultural Theory and the Zone of Proximal Development, which illuminate how digital entrepreneurs operate beyond their linguistic scaffolding and require structured support to bridge the gap. The study recommends bilingual digital interfaces, simplified English for digital education, infrastructural investment, and targeted English for Specific Purposes (ESP) programmes. The paper contributes to the growing literature on language, digital transformation, and economic inclusion in sub-Saharan Africa.

Keywords: English language; digital entrepreneurship; inclusive growth; Nigeria; language proficiency; digital economy.

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INTRODUCTION

The intersection of language, digital technology, and entrepreneurship represents one of the most consequential frontiers for economic development in twenty-first-century Nigeria. As the country undergoes rapid digitalisation, a fundamental question emerges: who can meaningfully participate in the digital economy, and under what conditions? By 2024, Nigeria's digital economy was firmly established as a key driver of growth, with the information and communications technology sector contributing approximately 15.97 percent to the nation's GDP in the first quarter of 2024 (National Bureau of Statistics, 2024). Digital platforms have become the primary infrastructure for commerce, banking, and communication across the country. These aggregate statistics demonstrate the rapid uptake of digital entrepreneurship, but they mask a more nuanced and troubling paradox: the benefits of digital entrepreneurship are not shared equitably across Nigeria's linguistically diverse population.

Entrepreneurship is widely recognised as a significant catalyst for economic emancipation, providing socioeconomic independence, self-esteem, and pathways out of unemployment (Maharana & Chaudhury, 2017). However, the capacity to establish and sustain a successful business enterprise is intrinsically bound to the ability to communicate effectively through language. In Nigeria, English serves as the official language and the primary medium of instruction, functioning simultaneously as a gateway to opportunity and a barrier to participation (Bamgbose, 2000). The COVID-19 pandemic acted as a stress test for Nigeria's entrepreneurial ecosystem, as businesses rapidly transitioned to digital platforms during lockdowns. This transformation to e-commerce, fintech, and remote working has persisted beyond the immediate crisis, creating a permanent shift in how business is conducted. Entrepreneurs who possess strong language skills can establish trust with prospective customers and build their identity in the business environment (Wei & Jiao, 2019). The post-pandemic landscape reveals that linguistic competence plays an increasingly critical role in determining winners and losers in the digital age.

This study synthesises available empirical evidence to address two research questions: (1) To what extent does English language proficiency facilitate the development of digital entrepreneurship skills in the contemporary Nigerian digital economy? (2) What linguistic barriers constrain inclusive participation in Nigeria's growing digital economy, and how can these be addressed through policy and practice? By integrating quantitative and qualitative findings from recent empirical studies, the paper aims to provide a comprehensive account of the relationship between language, digital entrepreneurship, and inclusive economic growth in Nigeria.

LITERATURE REVIEW

The Role of English in Nigerian Society

Language is a purely human mechanism for representing ideas and feelings through voluntarily produced symbols (Sapir, 1921). It serves as the essential lubricant for the functioning of any human society (Chomsky, 1957) and as a driver of societal development (Nwobia, 2015). English was introduced into the Nigerian context during the colonial period and has since been adopted as the official language, serving as the primary medium of government, trade, and education (Adegbija, 1994). While scholars such as Bamgbose (2000) acknowledge that English promotes national integration in a linguistically fragmented nation, they also recognise that it constitutes a source of educational and economic disparity, particularly for speakers of indigenous languages. For many Nigerians, English is encountered only in formal settings, creating a cognitive and social disconnect when engaging with digital tools as a consequence of this colonial legacy. The prestige attached to English in Nigerian society further marginalises indigenous languages in digital spaces, reinforcing existing power asymmetries (Davis, et al., 2020; Giles & Wiemann, 1993; Adekanmbi. et al., 2026).

Entrepreneurship and Digital Transformation

Entrepreneurship is internationally acknowledged as a key contributor to overall wellbeing and economic transformation (Fayolle & Toutain, 2014). It generates new businesses, reduces unemployment, and enhances social welfare. The application of digital technologies in the contemporary era opens up new possibilities for innovation, scalability, and sustainability. However, the skills required for today's entrepreneurs are increasingly acquired through formal education or online platforms, both of which are predominantly delivered in English. Entrepreneurship education has become a mandatory requirement for university graduates in Nigeria, as advocated by the National Universities Commission, and is conducted primarily in English (Ingwe et al., 2023). English proficiency is therefore not merely a soft skill but a fundamental prerequisite for participation in entrepreneurial training and the digital economy more broadly.

Language as a Barrier and Catalyst in Business

Language proficiency constitutes one of the crucial resources for entrepreneurial success and profit maximisation (Johnstone et al., 2018; Ogurinka & Chimene-Wali, 2026). It exerts a significant influence on social relationships, legitimacy, and trust, which are regarded as sources of competitive advantage. Entrepreneurs who speak the language of their customers are more likely to be trusted and to secure repeat business (Chen et al., 2014). Digital marketplaces, which are often asynchronous and text-based, require clear communication in English to establish credibility and build trust with international counterparts. Entrepreneurs who lack such expertise are forced to rely on intermediaries, thereby reducing their profit margins. This linguistic gatekeeping has become more pronounced in the post-pandemic era, as digital platforms have emerged as the primary medium for conducting business.

Empirical Studies on Language and Entrepreneurship

Wei and Jiao (2019) examined the relationship between language skills and migrant entrepreneurship in China, finding that language proficiency significantly influences entrepreneurial success by facilitating market access, trust-building, and knowledge acquisition. Johnstone et al. (2018) investigated the role of language ability in entrepreneurship education across Europe, concluding that language competence is an essential component of entrepreneurial capability. In the Nigerian context, several recent studies have examined specific dimensions of the language-entrepreneurship relationship. Oladejo (2020) surveyed 60 SMEs in Ogun State, documenting the English communication challenges entrepreneurs faced during the rapid transition to digital commerce. Obiesili and Akabuike (2024) examined language-related barriers among 60 SMEs in Anambra State. Shittu et al. (2024) conducted a correlational study of 198 entrepreneurs in Lagos State. A 2025 study of 60 students in three North-East Nigerian states examined attitudinal and comprehension barriers in digital education. These studies provide the empirical foundation for the present synthesis.

THEORETICAL FRAMEWORK

This study is anchored in Vygotsky's Sociocultural Theory (1978) and Sociolinguistics Theory.

Vygotsky's Sociocultural Theory posits that learning is a socially mediated process in which language plays a crucial role in cognitive development and knowledge transmission. The concept of the Zone of Proximal Development (ZPD) is particularly relevant: it defines the gap between what a learner can accomplish independently and what can be achieved with guidance or scaffolding. In the digital environment, entrepreneurs with limited English proficiency operate beyond their ZPD; they require structured support, such as bilingual interfaces, peer assistance, or simplified content, to bridge this gap and achieve independent digital competence. Without such scaffolding, they remain permanently disadvantaged in the digital economy.

Sociolinguistics Theory examines the role of language in social settings, focusing on how language influences identity, access to systems, and power relations (Giles & Wiemann, 1993). In the Nigerian context, the prestige attached to English over indigenous languages creates a linguistic hierarchy that further marginalises non-

English speakers in digital spaces. This theoretical lens illuminates the exclusionary dynamics of English-only digital infrastructure and provides a framework for understanding the lived experiences of linguistically disadvantaged entrepreneurs.

Together, these frameworks guide the synthesis of empirical data and the interpretation of both statistical relationships and qualitative experiences of linguistic exclusion.

METHODOLOGY

Research Design

This study employs a convergent integrated mixed-methods synthesis design (Creswell & Plano Clark, 2018). This approach enables the systematic combination of quantitative and qualitative findings from multiple empirical studies, triangulating statistical relationships with contextual, lived experiences across different geographical regions.

Data Sources

The data were synthesised from four empirical studies conducted in Nigeria:

Source 1: Shittu et al. (2024), a correlational survey of 198 non-Yoruba speaking entrepreneurs in Lagos State, South-West Nigeria. The study employed purposive and simple random sampling methods and used a questionnaire developed from scales validated by Wei and Jiao (2019). This source provides the core statistical evidence for testing the relationship between language proficiency and entrepreneurship skills using Pearson Product Moment Correlation.

Source 2: Oladejo (2020), a descriptive survey of 60 SMEs in Mowe, Ogun State, South-West Nigeria, using a structured Yes/No questionnaire. This source provides frequency and percentage data on the English communication challenges entrepreneurs encountered during the rapid transition to digital commerce.

Source 3: Obiesili and Akabuike (2024), a descriptive survey of 60 SMEs in Awka and Nnobi Local Government Areas, Anambra State, South-East Nigeria, using a Yes/No structured questionnaire. This source provides data on language-related barriers, including language variation and attitudes toward English as a communication tool.

Source 4: A 2025 survey of 60 students in six tertiary institutions across Gombe, Bauchi, and Yola, North-East Nigeria. This source provides qualitative and attitudinal data on comprehension barriers, code-switching, peer reliance, and preferences for bilingual content, collected through the "Language and Digital Education Perception Scale" (LDEPS) with a Cronbach's Alpha of 0.81.

Combined Quantitative Sample: N = 318 (198 + 60 + 60). **Supplemental Contextual Sample:** N = 60 (qualitative and attitudinal data from Source 4).

Variables and Instrumentation

The source studies employed structured questionnaires assessing three main variables:

- **Language Proficiency:** Self-rated ability in reading comprehension, writing skills, listening comprehension, and confidence in conducting business in English.
- **Entrepreneurship Skills:** Perceived competence in marketing, negotiation, customer relations, digital platform usage, and problem-solving.
- **Business Performance and Barriers:** Revenue indicators, language-related barriers in digital commerce, and coping strategies such as code-switching and peer reliance.

Data Synthesis and Analytical Procedures

Data synthesis proceeded in three integrated phases. In Phase 1 (Quantitative Synthesis), descriptive statistics were computed for demographic, infrastructural, and language-related challenge data from Oladejo (2020) and Obiesili and Akabuike (2024). Pearson Product Moment Correlation was performed on the Shittu et al. (2024) data to determine the relationship between language proficiency and entrepreneurship skills. The coefficient of determination (r^2) was calculated to measure the proportion of variance explained. In Phase 2 (Qualitative Thematic Synthesis), qualitative data were analysed using the thematic synthesis approach (Thomas & Harden, 2008), involving line-by-line coding, grouping codes into descriptive themes, and synthesising higher-order analytical themes. Three themes emerged: (1) trust and identity through code-switching; (2) cognitive overload and peer dependency; and (3) infrastructural-linguistic vulnerability. In Phase 3 (Triangulation), quantitative and qualitative results were triangulated to provide a comprehensive understanding, linking statistical findings to lived experiences.

Limitations

The synthesis is limited by the scope of the source studies, which employed different sampling strategies and instruments. The small corpus of four studies restricts the generalisability of the findings. The study also relies on self-reported data, which may be subject to social desirability bias. Despite these limitations, the synthesis provides useful evidence for understanding the relationship between language and digital entrepreneurship in Nigeria.

RESULTS

Demographic and Infrastructural Context

The synthesised demographic data indicate that the majority of entrepreneurs in the sampled studies were female (53.0%) and within the age range of 31–40 years (47.5%). This suggests that mid-career women are actively engaged in entrepreneurial activities across the South-West and South-East regions. The data also reveal persistent infrastructural gaps that constrain digital entrepreneurship: 72 percent of respondents owned smartphones or laptops, but 63 percent reported poor or irregular internet connectivity, and 68 percent lacked a reliable power source at their residence or place of business. These infrastructural deficits compound the linguistic barriers, creating a dual constraint on digital participation even for linguistically proficient individuals.

Correlation Between English Language Ability and Entrepreneurship Skills

The synthesis of correlational data reveals a strong, positive, and statistically significant relationship between language ability and entrepreneurship skills. Table 1 presents the Pearson Product Moment Correlation summary.

Table 1: PPMC Summary of Relationship between Language Ability and Entrepreneurship Skills

Variable	N	Mean	Std. Dev	df (n-2)	r	Sig.	r^2
Language Ability	198	45.13	3.53	196	0.86	<0.01	0.74
Entrepreneurship Skills	198	35.17	2.61				

Note. Adapted from Shittu et al. (2024) using scales validated by Wei and Jiao (2019).

The correlation coefficient ($r = 0.86$) indicates a strong positive relationship, while the coefficient of determination ($r^2 = 0.74$) shows that 74 percent of the variance in entrepreneurship skills is explained by English language ability. The relationship is statistically significant at $p < 0.01$, confirming that English proficiency is a critical determinant of entrepreneurial capability in the Nigerian digital economy.

Frequency of Linguistic Barriers

Aggregating the frequency results from Oladejo (2020) and Obiesili and Akabuike (2024) reveals the following linguistic challenges:

1. **66.7 percent** of respondents reported considerable difficulties in digital language communication during the rapid shift to online shopping, struggling to navigate internet advertising and sales platforms.
2. **60.0 percent** of entrepreneurs reported difficulties communicating with customers in English, particularly with customers who had limited literacy.
3. **58.3 percent** stated that English is essential for economic sustainability but reported problems with technical terminology and listening comprehension, limiting their ability to engage in video-based marketing and digital learning.
4. **75.8 percent** experienced problems with language variation when communicating with customers from different geographic locations, a common occurrence in the Nigerian digital marketplace.
5. **63.3 percent** acknowledged that English facilitates communication and awareness of current trends but continued to struggle with mastery of the language.

Qualitative Contextual Findings

Thematic analysis of qualitative data from the source studies revealed three main themes.

Theme 1: Trust and Identity Through Code-Switching

Entrepreneurs reported that although English was necessary for formal business interactions and online profiles, they consistently switched to Yoruba, Igbo, or Hausa when "closing the deal" or establishing emotional connections with customers. Participants observed that using the customer's language fostered trust, while English introduced psychological distance. This indicates that while English provides access to digital platforms, it does not deliver the emotional connection necessary for customer retention, compelling entrepreneurs to employ code-switching strategies.

Theme 2: Cognitive Overload and Peer Dependency

The North-East digital education survey (2025) revealed that 62 percent of participants avoided complicated English content, 40 percent relied on peers to interpret content in local languages, and 53 percent became demotivated when content was complex or not available in a local language. These findings indicate that the cognitive load of operating in a second language significantly interferes with digital navigation and skills development. According to Vygotsky's theory, these learners are operating beyond their Zone of Proximal Development without adequate scaffolding.

Theme 3: Infrastructural-Linguistic Vulnerability

Qualitative evidence demonstrates that even when entrepreneurs possess smartphones, technical terminology and unreliable internet connectivity render digital entrepreneurship nearly unattainable. The challenge is not merely "everyday English" but "digital English," a specialised vocabulary of e-commerce, fintech, and online marketing that is rarely addressed in conventional language education. The intersection of linguistic and infrastructural barriers creates a compounded vulnerability that excludes many Nigerians from the digital economy.

DISCUSSION

This synthesis confirms the central hypothesis by revealing that English language proficiency functions as a double-edged sword within Nigeria's digital economy. The quantitative data demonstrate that English proficiency explains 74 percent of the variance in entrepreneurship skills, a finding consistent with international research by Wei and Jiao (2019), who documented that language skills determine how effectively entrepreneurs can penetrate foreign markets. The research confirms that language proficiency is critical for market entry, trust-building, and knowledge acquisition (Johnstone et al., 2018). As artificial intelligence and global online marketplaces continue to expand, this linguistic advantage is likely to become even more pronounced.

However, the qualitative and frequency data expose the exclusionary impact of English-only digital infrastructure on Nigeria's economy. The finding that 60 percent or more of entrepreneurs experience communication difficulties indicates a persistent failure of product design in the digitalisation process. The 66.7 percent of entrepreneurs who encountered linguistic problems during the transition to digital commerce suggests that these challenges will persist without deliberate intervention. Through the lens of Vygotsky's Sociocultural Theory, the Zone of Proximal Development for most Nigerian entrepreneurs remains uncrossed. Without bilingual scaffolding, they cannot acquire the independent digital literacy necessary to compete globally. The code-switching documented in the qualitative analysis represents an informal and inadequate form of scaffolding, reflecting the reality of a multilingual environment that digital platforms have largely ignored.

The study also highlights the critical intersection of infrastructural and linguistic obstacles. Entrepreneurs who face both an English-only fintech application and unstable internet connectivity are likely to abandon the platform altogether. Policy interventions must therefore address technological and linguistic barriers simultaneously. Furthermore, although 85 percent of respondents in the North-East study acknowledged the indispensability of English for success, 70 percent expressed support for bilingual content. This indicates that entrepreneurs are not opposed to English; they seek a combination of English and local languages that reflects their lived reality. Embracing Nigerian multilingualism by incorporating Hausa, Yoruba, Igbo, and Pidgin into digital interfaces would not constitute a retreat from globalisation but would instead make global participation accessible to the majority of Nigerians.

The findings also have implications for the emerging field of artificial intelligence and natural language processing. With the advent of generative AI, the technical capacity to provide real-time translation and multilingual interfaces has become readily available. Digital entrepreneurs in Nigeria could benefit from AI-powered tools that reduce the cognitive load of operating in English while gradually building English competence. This represents a promising avenue for policy and technological innovation.

CONCLUSION AND RECOMMENDATIONS

This study finds that English language competence is a strong and statistically significant determinant of digital entrepreneurship capability in Nigeria, explaining 74 percent of the variance in entrepreneurship skills. However, the exclusive reliance on English poses major constraints that hinder inclusive economic participation. The empirical evidence leaves no doubt that many Nigerian entrepreneurs are excluded from the digital economy due to linguistic barriers, compounded by infrastructural challenges. As the country continues to digitalise, linguistic discrimination has become a significant obstacle to sustainable economic development.

Based on the synthesised evidence, the following policy recommendations are proposed:

1. Provide Bilingual and Multilingual Digital Tools: Governments and technology companies should incentivise the incorporation of major Nigerian languages (Hausa, Yoruba, Igbo, and Pidgin) into fintech applications, e-commerce platforms, and educational software. The 70 percent support for bilingual content in the North-East region justifies this recommendation. With advancements in artificial intelligence, this can be achieved without significant economic burden.

2. Use Simplified English in Digital Education: Entrepreneurial training programmes should employ simplified English, subtitles, and visual aids. The finding that 53 percent of learners become demotivated by technical jargon underscores the need for content to be scaffolded in accordance with the Zone of Proximal Development.

3. Invest in Power and Internet Infrastructure: The findings that 63 percent of respondents lack reliable power and 68 percent lack reliable internet access demonstrate that infrastructural development is fundamental to digital economic participation. Language interventions alone cannot overcome these deficits.

4. Implement Targeted English for Specific Purposes (ESP) Programmes: Government and private sector collaboration should support affordable ESP courses that target business-related English skills, with particular emphasis on listening comprehension and digital terminology.

5. Conduct Further Research: Future studies should employ sequential explanatory mixed-methods designs to assess the impact of bilingual intervention programmes on business revenue and to explore the role of code-switching in high-stakes digital financial decision-making. Research should also examine the potential of AI-powered translation tools to support inclusive digital participation.

The findings of this study contribute to the growing literature on language, digital transformation, and economic inclusion in sub-Saharan Africa. They demonstrate that language policy is not merely a matter of education or culture but a critical determinant of economic opportunity in the digital age.

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