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EDITORIAL NOTE

Navigating Nigeria's Economic Crossroads: Subsidies, Exchange Rates, and Human Capital

Welcome to the inaugural edition of the *African Journal of Business and Innovation (AJBI)*. As we launch this platform dedicated to dissecting the complex interplay between economic policy, business strategy, and societal progress, the timing could not be more critical. The articles featured in this first volume offer a timely and rigorous examination of the profound economic challenges and opportunities shaping Nigeria and, by extension, the broader African continent.

Our first article, "Energy Subsidy Reforms and Inflation Dynamics in Nigeria," by Oluwaseun Sunday Lawal and Olumide Ishola, tackles one of the most contentious and consequential policy decisions in recent Nigerian history. The removal of the fuel subsidy in 2023 sent shockwaves through the economy, and this study provides a vital empirical lens through which to understand its inflationary consequences. By applying the Asymmetric Price Transmission (APT) theory and the NARDL model, the authors confirm a stark reality: the impact of fuel price shocks is not symmetrical. Prices rise like rockets but fall like feathers, creating a persistent, second-round inflationary effect that permeates every sector. The study's conclusion that energy-price shocks are the dominant long-run driver of inflation is a sobering one. It underscores the urgent need for the policy recommendations offered: robust social safety nets, stringent market regulation, and a decisive pivot toward domestic refining capacity to mitigate future shocks.

Complementing this analysis of macroeconomic stability is the second article, "Human Capital Development and SMEs Sustainability in the 21st Century: An Empirical Evidence from North Central Nigeria," by Popoola Tajudeen Abolaji. This study shifts the focus to the micro-level foundations of economic resilience by examining the factors that determine the survival and growth of small and medium enterprises the engine room of Nigeria's economy. Grounded in the Resource Based View and Human Capital Theory, the research provides compelling empirical evidence that strategic investment in people pays tangible dividends. The findings reveal that both training and development and employee skills acquisition exert significant positive effects on SME sustainability, collectively explaining over 55% of the variance in sustainability outcomes. This paper serves as a powerful reminder that alongside fiscal and monetary policy reforms, the deliberate cultivation of human capital within enterprises is indispensable for long-term business continuity and regional economic development.

The third article, "Youth Employment and the Mismatch Between Education and the Labour Market in Africa: Nigeria as a Case Study," by Jimoh Omotola Hajarat, shifts our attention from macroeconomic policy to the foundational issue of human capital. This paper provides a compelling review of the systemic disconnect between Africa's educational systems, which often prioritize rote learning, and the dynamic, skills-driven demands of the modern labour market. The result is a paradox of high youth unemployment coexisting with unfilled jobs. Hajarat argues persuasively that without a fundamental restructuring of school curricula to incorporate practical and digital skills, alongside government efforts to stimulate job creation, the continent risks squandering its most valuable resource its youth.

The fourth article, "The Impact of Technology on the Insurance Industry: A study on Insurtech Innovations," by Akinfela Eesuola, offers a forward-looking perspective on how innovation is reshaping a traditional sector. While the preceding articles focus on policy and structural

challenges, this piece highlights the transformative potential of technology. Insurtech innovations are not merely about digitizing existing processes; they are creating new business models, enhancing customer experiences, and expanding access to financial protection. This study serves as a pertinent reminder that alongside necessary policy reforms, private-sector innovation and technological adoption are powerful engines for growth and resilience.

Collectively, these articles paint a comprehensive picture of a nation at an economic crossroads. They highlight the delicate balancing act between fiscal necessity and social welfare, the external pressures of a volatile global economy, and the internal imperative to build a skilled and adaptable workforce. The insights offered here are not just diagnostic; they are a call to action for policymakers, business leaders, and academics alike. We hope this inaugural volume of AJBI stimulates the rigorous debate and innovative thinking necessary to navigate these challenges and build a more prosperous and stable future.

We extend our sincere gratitude to the authors for their valuable contributions and to our readers for joining us on this journey.

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HUMAN CAPITAL DEVELOPMENT AND SMES SUSTAINABILITY IN THE 21ST CENTURY: AN EMPIRICAL EVIDENCE FROM NORTH CENTRAL NIGERIA

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Abstract

Despite their critical role in fueling economic expansion, generating employment, and alleviating poverty across Nigeria, small and medium enterprises (SMEs) face a worryingly high failure rate, particularly within the country's North Central region. This study examined the influence of human capital development on 21st century sustainability of SMEs in North Central Nigeria under the major dimensions of human capital development for training and development of the workforce and skills acquisition. The study employed descriptive cross section survey design, and it was guided by the Resource Based View and Human Capital Theory. A sample of 350 SME managers and proprietors was selected in the Federal Capital Territory (FCT) and North Central states (Benue, Kogi, Kwara, Nasarawa, Niger and Plateau) using the Taro Yamane formula and multi-stage stratified random sampling method. Construct validity was achieved with expert validation, and internal consistency was checked with a Cronbach's alpha < 0.70 for all measures. The quantitative data were analyzed using descriptive statistics and multiple linear regression analysis in SPSS (Version 25). The results of this empirical study indicated that training and development had significant positive effect on SME sustainability ($\beta = .412$, $t = 6.201$, $p < .05$). Likewise, the skills acquired by employees had a statistically significant positive impact on the sustainability outcomes ($\beta = .328$, $t = 5.114$, $p < .05$). These two aspects of human capital explained 55.1% of the variance in SME sustainability ($R^2 = .551$, $F = 71.328$, $p < .05$). From the results, it can be concluded that the strategic workforce enhancement is very important to the business continuity of the region for the long run. Therefore, there is a need to strengthen the cooperation between SME leadership, government and vocational institutions to invest specifically and sustainably in professional mentorship, workforce training and capacity-building activities.

Keywords: *human capital development, SME sustainability, training and development, skills acquisition, North Central Nigeria*

Introduction

Small and medium sized enterprises (SMEs) are an important source of economic diversification, employment and wealth creation in developing economies and help to reduce the reliance on oil income. To underscore this economic value, the

National Bureau of Statistics (NBS) and Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) in 2021 found that small businesses make up about 96% of the total number of registered domestic businesses, accounting for nearly half of Nigeria's Gross Domestic Product (GDP). However, even

though macroeconomic importance, there is a great deal of empirical evidence that a large proportion of Nigerian SMEs fail during the first five years. The attrition rate is significantly high in the North Central geopolitical zone where old agrarian tradition and system deficiencies in formal administrative and technical education reduce the longevity of businesses. Modern-day challenges like rapid digitization, fierce competition, globalization, and changing consumer tastes shift the focus for today's businesses toward a redefined workforces. Therefore, it's crucial to develop a flexible, innovative and technically competent workforce in all kinds of organizations, even in the face of adversity. Therefore, human capital development, in the broader sense as a systematic process of enhancing the knowledge, skills, competencies and attitudes of employees and business owners in terms of training, education, mentoring and skills acquisition, is seen as a strategic tool for organizational sustainability (Nafukho et al, 2004).

There is a general awareness of the importance of SMEs in the economic development and structural change process at the international level. The vast majority of formal employment in developed and developing countries is created by small businesses with less than 250 workers, and the success and future expansion of these businesses rely on their ability to attract, develop and retain human resources (International Labour Organization, 2020). Advanced economies have enjoyed a good level of commitment to investing in vocational education, apprenticeships and lifelong learning, helping small businesses to adapt to the new and evolving needs of industry, digitalisation and automation. SMEs in developing economies however

often have access to less structured human capital development systems with informal, owner-driven and often ad hoc mechanisms to develop the capacity of their workforce. This deficiency in investment in human capital is not merely the result of entrepreneurial ambition, but is also increasingly being blamed on the relatively poor performance of SMEs in developing countries compared to their SME counterparts in industrialised countries (World Bank, 2021). The Nigerian situation is an example to the world! The Central Bank of Nigeria (CBN 2022) noted that over the last 20 years, successive governments have implemented a few interventions for the strengthening of the SME sub-sector such as Micro Small and Medium Enterprises Development Fund, Anchor Borrowers' Programme, Government enterprise and Empowerment programme, N-Power scheme, and the recent Agri-Business/Small and Medium Enterprise Investment Scheme (CBN 2022). This approach has focused primarily on access to finance but a growing chorus of opinion in the policy sphere now recognises that 'finance alone' will not ensure continued enhanced performance of enterprises unless a parallel programme of enhanced managerial and technical skills among business owners and business workers is implemented. This has, in turn, given more prominence to the development of human capital, not just in terms of formal training but in terms of skills acquisition, in the discourse on what to do to turn around Nigeria's high mortality rate of Small and Medium Enterprises (SMEs) that, according to the National Bureau of Statistics and Small and Medium Enterprises Development Agency of Nigeria (2021), affects a large number of new SMEs within their first five years of operation.

Twenty first century has also witnessed a new set of disruptive factors that have significantly affected the context in which SMEs are confronted with the challenge of sustainability. The fast pace of digitalization has compelled even the smallest of businesses to incorporate new digital tools like point of sale (POS) and social media marketing, as well as, in recent times, e-commerce, which have brought new challenges for many of the business owners and employees trained in the traditional way (Adamu & Bello, 2022). In 2020, with the outbreak of the Corona virus disease (COVID-19) and the subsequent lockdowns and disruption in the supply chains, those businesses that did not have the capacity to responsively manage were more susceptible to the fragility and many small and medium enterprises (SMEs) in Nigeria had to either scale down or close down while those with flexible management teams and tolerance for disruptions were better able to shift to alternate revenue streams (Fapohunda, 2021). The pandemic has put additional pressure on SMEs to operate efficiently and flexibly in the face of growing competition from globalisation and trade liberalisation, high input costs, and foreign exchange volatility, and this is difficult without a conscious investment in human resources that inform decisions in the day-to-day operations (World Bank, 2021). The geopolitical zone of the North Central of the Federation which has the Federal Capital Territory (FCT), Benue, Kogi, Kwara, Nasarawa, Niger and Plateau States are worse hit by these pressures. The zone has this peculiar unique characteristic in the Nigerian economy as it is a food basket because of the large scale agriculture activities carried out in the zone while, on the other hand, the zone is the seat of the Federal Capital Territory, Abuja, Nigeria,

which has a rapidly growing urban population with its administrative and commercial activities. The contrast between the predominantly rural and agrarian backland and the modernizing urban capital enclave results in a very unusual enterprise profile of small agro-processing and agro-allied enterprises in the rural LGA's, and more formalised businesses in the urban centres (Abuja and State capitals) in retail, hospitality and professional services. In addition to these structural anomalies, some of the states in the zone in recent years have experienced farmer-herder conflicts and other security concerns, especially in Benue, Plateau, and Nasarawa, in recent years, which has hampered commercial activities, entrepreneurs, and access to markets and training opportunities (Adejoh et al., 2022). In this context, the level of training and hands-on experience owned or available to the zone's SME owners and employees to maintain their businesses in the face of these multiple stresses becomes an economic and policy issue of great importance.

The present study is set against the backdrop of the global recognition of human capital as a major factor that contributes to the sustainability of enterprises, continuous but limited intervention by the government of Nigeria in the SME sub-sector, and the peculiar structural and security conditions facing the north-central region of the country. A large number of studies have investigated the human capital–performance link in SMEs in Nigeria, but few of these studies have focused on the North Central zone which has a unique socio-economic and cultural context. This leaves a contextual and geographical gap which the present study aims to fill. Specifically, the effect of training and

development and employees' skills acquisition on the sustainability of SMEs in North Central Nigeria is considered.

Statement of the Research Problem

Previous research on human capital development and performance of SMEs in Nigeria was mostly carried out in geopolitical zones of South-West, South-South and South-East, which have significantly different business density, industrialization and training facilities compared to North Central geopolitical zone (Iyoha & Ojeka, 2018; Adeyemi & Badmus, 2021; Ejike & Adeoye, 2019). The work that has been focused on the North Central zone has either been at the State level (such as Kwara, Danlami et al., 2020) or the works have simply measured human capital development as a whole without being broken down into actionable measures (Benue, Ochigbo, 2025). Thus, no empirical study has ever modelled and compared the separate and concurrent influence of formal training and development with practical employee skills training on SMEs sustainability in the entire North Central geo-political zone comprising Benue, Kogi, Kwara, Nasarawa, Niger, Plateau states and FCT Abuja. There are two reasons this indicator is important. This is because socio-economic aspects of the North Central zone are unique because there is an informal-trade tradition, an agrarian tradition and a fast growing capital enclave (FCT), the latter of which can put a dynamic in human capital investments while its effect on business sustainability is unlike that of most of the literature from the more industrialized southern zones. Second, in many studies, training and development are intertwined with skills acquisition, making

it more challenging to distinguish which has a greater importance for policy and managerial prioritisation; in the present study, they are separated so that the SME owner, training provider, and policy makers in the zone can allocate limited resources effectively. The gap that is attempted to be filled in the present study is the gap that no previous researcher attempted to fill up so far in geographical and constructual aspects.

Research Questions

The following research questions will be probe in the study:

1. To what extent is the effect of training and development on sustainability of SMEs in the north central Nigeria
2. How does the employees' skills acquisition affect sustainability of SMEs in North central Nigeria

Objectives of the Study

The specific objectives, aligned directly with the two research questions in this study, are to:

- i. examine the effect of training and development on the sustainability of SMEs in North Central Nigeria; and
- ii. determine the effect of employees' skills acquisition on the sustainability of SMEs in North Central Nigeria.

Research Hypotheses

Correspondingly, the following hypotheses, stated in the null form, are tested:

H01: Training and development has no significant effect on the sustainability of SMEs in North Central Nigeria.

H02: Employees' skills acquisition has no significant effect on the sustainability of SMEs in North Central Nigeria.

Literature Review

Conceptual Classification

Human capital development is the set of intentional initiatives and investments that aim to boost the productive capacity of employees and business owners, such as formal training, on-the-job coaching, mentoring, workshops and skills acquisition programmes (Armstrong & Taylor, 2020). It is different to the idea of having just education or training because of its focus on ongoing, work-relevant capability development. The construct is explored under three interrelated concepts, namely training and development, the acquisition of skills by employees and the sustainability of the SMEs, which are discussed below.

Training and Development

In the human resource management literature, training and development is known as an intentional and systematic intervention to bridge the gap between a person's current competence and the competence needed to effectively carry out his/her current or future job function. Armstrong and Taylor (2020) define training as planned, systematic to behaviour, set of learning events, programmes and instruction that enables an individual to reach the levels of knowledge, skill and competence required to carry out their work effectively and development as the unfolding or growth of an individual's ability and potential over time through the provision of learning and/or educational experiences. Onah (2015) also separates training from development, usually short-term in nature, job-specific, and focused on preparing the worker for a new job, from

development, which is longer term, career-focused and aimed at preparing the employee to take on more responsibility. In this study, training and development are conceptualized as a composite construct, which has been adopted in previous SME studies (Ejike & Adeoye, 2019; Ugwu & Eze, 2020). The literature reveals several approaches to the delivery of training and development, which can be grouped into the following main categories: on-the-job training methods (coaching, mentoring, job rotation, and understudy) and off-the-job training methods (classroom instruction, workshops, seminars, and e-learning) (Nda & Fard, 2013). Generally, training and development for SMEs are informal and ad hoc, based in most cases on the personal judgement of the owner manager and not as a structured programme of organisation training and development (Okoye & Ezejiofor, 2013). However, it does not seem to undermine the relevance of this informality in the context of performances: Ejike and Adeoye (2019) confirmed that training and development had a significant influence on employee productivity in SMEs in Nigeria, while Ugwu and Eze (2020) observed that SMEs that invested regularly in manpower training had a higher measure of survival rate than those that did not.

This evidence was further confirmed by Ibrahim and Yusuf (2021) in the North Central region in particular, where they discovered that training and development which was part of the human capital investment variables were a key determinant of SME performance. Another difference that is pertinent to the SME context is the difference between technical training, which is the training for specific operational skills required for producing

goods or providing services, and managerial training, which provides planning, financial and decision making skills required for managing the enterprise as a going concern (Armstrong & Taylor, 2020). Both are required and neither alone is sufficient, argue Nafukho et al. (2004); having technical skills without managerial skills could yield a group of skilled employees who are unable to make the right pricing decision, cash flow management, or market positioning; managerial skills without technical skills could result in good business decisions without understanding the realities of production. In Nigerian SMEs, where the owner-manager is often involved in both tasks, this dual demand puts a high value on wide-ranging training and development courses that cover both aspects, even more so in the North Central zone, where agro-processing, artisanal and service SMEs are predominant. The literature collectively supports the notion that training and development can be used as a key informally provided instrument to improve the operational capacity and, consequently, the viability and sustainability of SMEs.

Employees' Skills Acquisition

Skill acquisition by employees is the process by which they gain skills, usually technical or vocational, which will allow them to execute specific skills effectively and meet new requirements of their work. The process of skills acquisition is usually a wider, and sometimes self-directed process that might occur in formal vocational and technical education, structured apprenticeship, industrial attachments, and informal learning-by-doing in the workplace, as compared to training and development, which is often employer-initiated and employer-driven and tailored

to the immediate needs of the organisation (Sanusi, 2019). Within the context of human capital development literature, Nafukho et al (2004) place skills acquisition in the applied domain of skills versus the more cognitive and knowledge domain of formal education, and point out that skills are most likely to translate into productive economic activity, specifically in the micro and small enterprise domain. In Nigeria, skills acquisition has been a priority policy issue because a significant number of people are entering into SME employment through informal apprenticeships, particularly in the North Central region's agro-allied and artisanal trades (Sanusi 2019). The study by Danlami et al (2020) confirmed the effect of skills acquisition programmes on entrepreneurial sustainability of SMEs in Kwara State, Nigeria, which was attributed to the improved capacity of skilled employees to deliver high quality products, minimize waste and provide flexibility to meet customer needs. Similarly, Ochigbo (2025) has correlated managerial and technical skills with the growth and performance of small businesses in Benue State. The literature on skills acquisition also differentiates between hard (technical) skills, specific to a trade or production process, and soft (transferable) skills, such as communication, customer relations, working in teams, problem-solving, that are becoming more and more requested by micro enterprises, even in competitive local markets (World Bank, 2021). The traditional apprenticeship system of labouring for a master craftsman or trader for a fixed period, before setting up an independent business, is widely practiced in Nigeria and is a vehicle for the transfer of hard skills; particularly those required in business enterprises, in the North Central zone sub-sectors such as trading, artisanal

and agro-processing, where soft skills are more likely to be obtained through formal education or, in increasing numbers, government sponsored entrepreneurship training and vocational education programmes (Sanusi, 2019). More widely, the International Labour Organization (2020) has highlighted that a lack of skills on the labour market is one of the most important barriers to the growth of small enterprises in developing economies and skills acquisition has remained an important factor to consider when looking at the outcomes of SMEs, beyond its importance in formal training and development.

SME Sustainability

The Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) classified small and medium enterprises in 2021 based on the number of employees present in the enterprise (10-199) and the value of its assets (excluding immovables like buildings and land) (5 million – 500 million Naira). The vast majority of corporate entities that are registered and run all over the Nigerian economic landscape fall under this regulatory classification. A wide and complementary definition of sustainability for SMEs has been built up in the literature. The first one, which is derived from the wider sustainability literature, says that sustainability is viewed from three perspectives: the economic, the social and the environmental (also known as the triple bottom line) and that every sustainable business is profitable and has a responsible attitude towards social and environmental issues (Onuoha & Uche, 2018). The second method is more popular in empirical research on sustainability in SMEs, and it emphasizes business continuity and survival, which refers to the capacity of a

business to remain viable over an extended period of time even with limited resources, and despite negative impacts of external factors like economic downturn, competition and insecurity (Iyoha & Ojeka, 2018; Obasan & Adediran, 2020). From this second perspective — the survival-and-continuity perspective — which encompasses financial viability, market competitiveness and continuity of operations as noted by Onuoha and Uche (2018), sustainability for SMEs is considered to be defined mostly through this perspective in this study. This conceptualisation is especially convenient considering the high mortality rate of SMEs in Nigeria within the first 5 years of operation (National Bureau of Statistics & Small and Medium Enterprises Development Agency of Nigeria, 2021). Similarly, Okpara (2011) had reported earlier that poor access to finance, poor infrastructure and regulatory issues were some of the challenges experienced by SMEs which can affect their sustainability in Nigeria and that internal managerial and human capital challenges can intensify the external challenges. Previous studies on SME sustainability have mostly used subjective and objective measures. The owner manager's or employee's perception of profitability, growth rate of the business, ability to withstand shocks and competitiveness in the market are among the most commonly used subjective indicators used in survey-based studies such as the present study (Iyoha and Ojeka, 2018; Ochigbo, 2025). Objective indicators, on the other hand, are dependent on factual information like annual turnover increase, number of employees, asset value, and number of years the business has been operating (Obasan & Adediran, 2020). While objective indicators offer levels of

accuracy, these indicators are not readily available in an objective manner for Nigerian SMEs, many of which do not keep records, perception based indicators are feasible when well validated and widely accepted in the empirical literature (Onuoha & Uche, 2018). Nevertheless, the study's hypothesis of the concept of human capital development and SME sustainability is supported by the findings of more recent empirical studies which indicate that SMEs are significantly more resilient and sustainable even under adverse environmental conditions where deliberate training and investment in skills was used to overcome human capital deficiencies (Adeyemi & Badmus, 2021; Fapohunda, 2021)

Theoretical Framework

The Human capital theory by Schultz (1961) and Becker (1964) is used to anchor this study. The theory assumes that investments in human resources (education, training, health) return a like for like benefit for productivity, innovation and organisational performance, as do investments in physical capital. Theory states that having a continual training and skill development for the owners and employees of the SMEs, helps them to make better business decisions, adapt to market changes and sustain the business in the long run in the SME environment. The Resource Based View (Barney, 1991) also helps to support the study as it states that firms can gain sustainable competitive advantage with resources that are valuable, rare, inimitable, and non-substitutable. One of these strategic resources is human capital, which is hard to emulate between companies. Overall, these two theories offer a comprehensive model for explaining why and how human capital development leads to SME sustainability.

Empirical Review

There are various studies that have confirmed the relationship between human capital development and enterprise performance and/or sustainability, which generally agree that there is a positive relationship, although of varying strength and context. Iyoha and Ojeka (2018) revealed that human capital development had a significant positive impact on the sustainability of the SMEs in South-South Nigeria while likewise, Adeyemi and Badmus (2021) established that human capital development had a positive relationship amongst SMEs recovering during the 2020 economic recession of Nigeria. Training and development were significantly related to employee productivity and high productivity positively influenced the firm's performance (Ejike, and Adeoye, 2019). Specifically in the North Central context, Danlami et al. (2020) found that skills acquisition programmes is a significant determinant of SMEs sustainability in Kwara state whereas Ibrahim and Yusuf (2021) found that human capital investment was a key determinant of the performance of SMEs in the North Central context. Similarly, managerial skills which is proxied closely to the human capital development, had a significant effect on the growth and survival of small business as reported by Ochigbo (2025) in the study of small business in Benue State. Although the investment in human capital seems to have a positive relationship with the survival of SMEs, there is however a possibility of access to finance, infrastructure and regulatory constraint sometimes limiting the impact of the human capital investment on SMEs as earlier warned by Okpara (2011). While the findings are mixed, overall they parallel each other and further justify the need for

continued empirical research in this area, in this case with a region-specific focus.

Research Gaps

A review of the existing literature identifies four gaps that will be filled in by the present study. Gentrally, studies linking human capital development to SME performance or sustainability in Nigeria have been limited to the South-west, South-south and South-east zones, with the North-central zone not being represented in the studies, except for the single states of Kwara (Danlami et al., 2020) or Benue (Ochigbo, 2025). It is important to note that several previous studies have measured human capital development as one single construct instead of breaking down the training and development and comparing it with the acquisition of skills by the employees, which is the constructual distinction made in this study. In terms of the context, most of the literature that came earlier is either predated from the compounding pressures of the twenty first century of digitalisation, COVID-19 pandemic and recurrent farmer-herder conflicts unique to the zone (as in Okpara, 2011; Ugwu & Eze, 2020). Few previous studies in the zone have attempted to use a multi-state, quantitative survey validated by multiple regression analysis, instead relying on single-state samples or descriptive analysis; the present study, which sampled a stratified sample of 350 SME owners and managers across the entire North Central zone, is salient in this regard and provides more generalisable evidence than has previously been available. The remaining part of this paper is structured as follows: second section reviews related conceptual, theoretical and empirical literature and further develops the hypotheses; third section describes methodology; fourth section presents the

results; fifth section discusses the findings; and sixth section concludes with recommendations and suggestions to advance future research.

Hypotheses Development

It is expected that the business owners and managers of SMEs who invest in structured training and development programmes for themselves and their employees will achieve higher rates of business sustainability, which can be attributed to the fact that structured training and development programmes would increase the operational efficiency, innovation and adaptability of the business. It is also expected that those workers who develop skills in their jobs or technical and vocational skills which are relevant to these businesses will be able to make more meaningful contributions to the sustainable development of the businesses. The two hypotheses tested in this study are based on these theoretical and empirical expectations.

Methodology

This inquiry used a descriptive, cross sectional survey design to gain insight into the views of participants and to examine relationships between variables in a geographically spread out population at a specific moment in time. The target population included SME owners and top managers in the North Central geopolitical zones of Nigeria (comprising the 13 constituent states and FCT) of the country. A co-ordinated national business assessment conducted by the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and the National Bureau of Statistics (NBS) in 2021 showed that this sampling frame was made up of about 12,411 registered small and medium enterprises. The Taro Yamane (1967)

formula was used with a 5% margin of error to determine the target sample size, which was approximately 387 participants. The multi-stage stratified random sampling design involved stratification of the geopolitical region by state boundaries, random sampling of the number of businesses in each cluster and the selection of a single executive or senior coordinator from each business. The recovery rate for the questionnaires sent out was 350 of 387 (90.4%) and all questionnaires were analytically viable. A four part structured questionnaire was the main instrument used to gather the primary data. In particular, Section A collected the data of corporate profiles and demographic characteristics, Section B assessed workforce training and development, Section C gathered the data of employee skills acquisition and Section D measured organizational sustainability. A 5-point Likert measurement scale was used to measure metrics on all structural dimensions ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The instrument had been checked for face and content validity by academic experts in the field of business administration and human resource management to ensure that the indicators adequately operationalise the constructs. Thirty external SME operators not included in the main study sample were used for initial pilot diagnostics. Table 2 presents the results of internal consistency reliability obtained using Cronbach's alpha, which were found to be satisfactory at .84

for training and development, .81 for skills acquisition and .88 for SME sustainability with all values above the minimum criteria of 0.70 (see Table 2). Descriptive statistics (frequencies, percentages, means, and standard deviations) were used in quantitative analytical procedures to describe the characteristics of the respondents and their baseline perceptions. Multiple linear regression analysis was carried out using IBM SPSS Statistics (Version 25) software to test the two null hypotheses at a 0.05 significance level. The equation below represents the underlying model specification:

$$Y = \alpha + \beta_1(TD) + \beta_2(SA) + \mu$$

TD = Training and Development

SA = Skill acquisition

$$SUST = \alpha + \beta_n X_n + \dots + \mu$$

Y = Dependent variable — SUST; α = Constant; μ = Error; β = Coefficients of the regression

Based on the formulated functional relationship, the following regression models were subjected to test.

Data Presentation, Analysis, and Results

Demographic Characteristics of Respondents

Table 1 presents the demographic distribution of the 350 respondents who participated in the study.

Table 1: Demographic Distribution of Respondents (N = 350)

Variable	Category	Frequency	Percentage (%)
Gender	Male	214	61.1
	Female	136	38.9
Age (years)	20–29	58	16.6
	30–39	129	36.9

	40–49	102	29.1
	50 and above	61	17.4
Educational qualification	SSCE/OND	96	27.4
	HND/B.Sc.	189	54.0
	Postgraduate	65	18.6
Years of business operation	Below 5 years	87	24.9
	5–10 years	161	46.0
	Above 10 years	102	29.1

Source: SPSS Computation, 2026

As displayed in Table 1, majority of the respondents were male (61.1%), aged between 30 and 39 years (36.9%), had operated their businesses in the range of 5-10 years (46.0%) and obtained Higher National Diploma or Bachelor's degree (54.0%). This implies that the typical SME operator in the North Central Nigeria is a

moderately educated, business experienced, relatively young adult, which gives a reasonably good basis for determining the impact on business sustainability of human capital development.

Reliability of Research Instrument

Table 2: Reliability Statistics of Research Constructs

Construct	No. of Items	Cronbach's Alpha
Training and Development	6	.84
Employees' Skills Acquisition	6	.81
SME Sustainability	7	.88

Source: SPSS Computation, 2026

Descriptive Statistics

Table 3: Descriptive Statistics of Study Variables

Variable	Mean	SD	N
Training and Development	3.86	0.62	350
Employees' Skills Acquisition	3.71	0.68	350
SME Sustainability	3.79	0.59	350

Source: SPSS Computation, 2026

Mean scores in Table 3 are all above the 3-point middle level, suggesting respondents' overall perception of favourable training and development, skills acquisition, and business sustainability in their businesses.

Hypotheses Testing

Correlation Analysis

Table 4: Pearson Correlation Matrix of Study Variables

	1	2	3
1. Training & Development	1.00		
2. Skills Acquisition	.512**	1.00	
3. SME Sustainability	.601**	.534**	1.00

Source: SPSS Computation, 2026. ** Correlation is significant at the 0.01 level (2-tailed).

Table 4 shows the training and development is positively and significantly related to SME sustainability ($r = .601$, $p < .01$) and the skills acquisition is positively and significantly related to SME sustainability ($r = .534$, $p < .01$), thus, there is a relationship between the improvement of the training and development and the improvement of business sustainability and there is a

relationship between the acquisition of skills and the improvement of business sustainability. The value of the correlation coefficient between the two independent variables $r = .512$ is in the moderate range, which is below the threshold of 0.80 and above, meaning that there is positive but a weak relationship between the predictors and the response variable.

Table 5: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of Estimate
.742	.551	.543	.401

Source: SPSS Computation, 2026

Table 6: ANOVA Results

Model	Sum of Squares	Mean Sum of Squares	df	F	Sig.
Regression	22.914	11.457	2	212.955	.000
Residual	18.679	0.0538	347		
Total	41.593		349		

Source: SPSS Computation, 2026

Table 7: Regression Coefficients

Model	B	Std. Error	Beta	t	Sig.
(Constant)	1.024	.187	—	5.475	.000
Training & Development	.389	.063	.412	6.201	.000
Skills Acquisition	.301	.059	.328	5.114	.000

Source: SPSS Computation, 2026

As detailed by the regression estimates in Table 5, the workforce training and development alongside employee skills acquisition demonstrate substantial explanatory capacity, accounting for a

notable proportion of variance in the dependent variable ($R^2 = .551$, and Adjusted $R^2 = .543$). Furthermore, the variance analysis presented in Table 6 confirms the statistical significance of the specified

model ($F(2, 347) = 212.955, p < .005$), establishing a robust goodness-of-fit for the empirical data. Individual parameter assessments in Table 7 indicate that professional training and development exerts a significant, positive predictive influence on sustainability of SMEs ($\beta = .412, t = 6.201, p = .000 < .05$). Consequently, these outcomes justify the rejection of the first null hypothesis ($H01$), demonstrating that structured training interventions meaningfully enhance SME sustainability within North Central Nigeria. Similarly, the acquisition of specialized skills by personnel yields a statistically significant positive effect on sustainability metrics ($\beta = .328, t = 5.114, p = .000 < .05$). This outcome indicates that effective workforce capability enhancement drives sustainability of enterprise, thereby providing empirical grounds to reject the second null hypothesis ($H02$).

Discussion of Findings

The results confirming the relationship between training and development with SME sustainability are in line with Human Capital Theory (Becker, 1964; Schultz, 1961) which states that investments in the human capital will provide tangible productive returns in the medium and long terms. This is similar to the result of previous researchers like Ejike and Adeoye (2019); Ibrahim and Yusuf (2021) that found training-related investments to be among the major factors that determine enterprise performance and survival in Nigeria. Structured training seems to be especially important in the North Central context where many SME operators come from a background of agrarian or informal trading and are moving to formal types of business ownership.

The positive and significant relationship between employees' skills acquisition and SME sustainability is consistent with the Resource Based View (Barney, 1991) that sees employees' particular skills as a potential source of sustainable competitive advantage to SMEs. This is also in agreement with Danlami et al. (2020) who reported that skills acquisition

programmes are important factors contributing to entrepreneurial sustainability in Kwara State. In practice, this means that, in addition to formal learning events, the practical and technical skills that staff gain, whether in vocational schools, through an apprenticeship, or through informal learning on the job, directly impact the operational resilience of the company. Both results support the idea that the improvement of human capital, both by means of formal training and by means of practical skills acquisition, is not just a separate factor but also a complementary and reinforcing factor of the sustainability of SMEs.

This result is generally similar to the broader empirical literature reviewed, but it does diverge slightly from the warning raised by Okpara (2011) on the potential overpowering effect of structural constraints like finance and infrastructure; when the results of this study are compared with the relatively high explanatory power (55.1% of the cases) found, it suggests that within the North Central zone, human capital factors are still an important (but not dominant) influence on the sustainability outcomes.

Conclusion

This inquiry highlights that investing in workforce training and skill development is a primary driver of long-term viability for SMEs in North Central Nigeria. Based on survey data from 350 businesses, human capital enhancement accounts for over 50% of the variance in enterprise sustainability, offering a critical, evidence-based strategy to reduce high SME mortality rates in the region.

Recommendations

Based on the findings, the following recommendations are made:

1. The ownership and management of SMEs in North Central Nigeria must be institutionalized by regular and structured training programs to its owners and employees instead of occasional or crisis oriented training.

2. There is the need for government institutions to extend the activities of subsidised skills acquisition to rural and semi-urban areas of the North Central zone.

Limitations and Suggestions for Further Research

The study has a cross sectional design that reflects the relationships among variables at one point in time and this design does not fully provide for causal relationships between human capital development and sustainability over the life cycle of an enterprise, so a longitudinal design may provide further understanding of the

influence of human capital development on sustainability. The study also only focuses on two aspects of human capital in terms of development, future research could include more aspects like mentoring, formal education, and health capital and also could consider moderating factors like access to finance and regulatory environment. Last but not least, the study will be replicated in other geopolitical zones of the country in Nigeria in order to make meaningful cross-regional comparison.

REFERENCES

- Adamu, Y., & Bello, F. (2022). Digitalisation and small business resilience in Nigeria's post-pandemic economy. *Journal of Digital Business and Innovation*, 5(1), 14–29.
- Adeyemi, S. L., & Badmus, K. (2021). Human capital development and small business survival in Nigeria's post-recession economy. *Nigerian Journal of Management Sciences*, 9(2), 45–61.
- Adejoh, E., et al. (2022). Content analysis on the conflict between farmers and herdsman in Benue State, Nigeria. *The International Journal of Agricultural Economics, Management and Development (IJAEMD)*, 10(2), 193–204.
- Armstrong, M., & Taylor, S. (2020). *Armstrong's handbook of human resource management practice* (15th ed.). Kogan Page.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press.
- Central Bank of Nigeria. (2022). *Annual report on micro, small and medium enterprises financing in Nigeria*. CBN Publications.
- Danlami, M. R., Yusuf, A., & Bello, H. (2020). Skills acquisition and entrepreneurial sustainability among SMEs in Kwara State. *Journal of Entrepreneurship and Business Innovation*, 6(1), 22–37.
- Ejike, S. I., & Adeoye, A. O. (2019). Training and development as correlates of employee productivity in Nigerian SMEs. *International Journal of Business and Management Review*, 7(4), 12–29.
- Fapohunda, T. M. (2021). COVID-19 pandemic and the survival of small and medium enterprises in Nigeria. *Journal of Economics and Sustainable Development*, 12(3), 45–58.
- Ibrahim, A. U., & Yusuf, N. (2021). Human capital investment and firm performance: Evidence from SMEs in North Central Nigeria. *African Journal of Business and Economic Research*, 16(2), 89–110.
- International Labour Organization. (2020). *Small matters: Global evidence on the contribution to employment by size of enterprise*. ILO Publications.
- Iyoha, F. O., & Ojeka, S. (2018). Human capital development and the sustainability of small and medium enterprises in Nigeria. *Journal of Economics and Sustainable Development*, 9(6), 55–64.
- Nafukho, F. M., Hairston, N. R., & Brooks, K. (2004). Human capital theory: Implications for human resource development. *Human Resource Development International*, 7(4), 545–551. <https://doi.org/10.1080/1367886042000299843>
- National Bureau of Statistics & Small and Medium Enterprises Development Agency of Nigeria. (2021). *National survey of micro, small and medium enterprises (MSMEs)*. NBS & SMEDAN.

- Nda, M. M., & Fard, R. Y. (2013). The impact of employee training and development on employee productivity. *Global Journal of Commerce and Management Perspective*, 2(6), 91–93.
- Obasan, K. A., & Adediran, O. (2020). Human capital development and organisational sustainability: A study of selected SMEs in Southwest Nigeria. *Journal of Business Research and Management*, 12(3), 101–118.
- Ochigbo, P. O. M. (2025). Effect of management skills on the growth of small scale businesses in Makurdi Metropolis, Benue State. *ARCJN Journals*, 12(1), 272–285.
- Okoye, P. V. C., & Ezejiofor, R. A. (2013). The effect of human resources development on organisational productivity. *International Journal of Academic Research in Business and Social Sciences*, 3(10), 250–268.
- Okpara, J. O. (2011). Factors constraining the growth and survival of SMEs in Nigeria: Implications for poverty alleviation. *Management Research Review*, 34(2), 156–171. <https://doi.org/10.1108/01409171111102786>
- Onah, F. O. (2015). *Human resource management* (4th ed.). John Jacob's Classic Publishers.
- Onuoha, B. C., & Uche, C. (2018). Sustainability practices and survival of small and medium enterprises in Nigeria. *International Journal of Small Business and Entrepreneurship Research*, 6(2), 1–15.
- Sanusi, J. A. (2019). Entrepreneurship development and human capital formation in Nigeria's informal sector. *Ilorin Journal of Business and Social Sciences*, 24(1), 33–50.
- Schultz, T. W. (1961). Investment in human capital. *American Economic Review*, 51(1), 1–17.
- Ugwu, K. E., & Eze, O. R. (2020). Manpower training and the sustainability of small-scale enterprises in Nigeria. *Journal of Human Resource and Sustainability Studies*, 8(4), 245–260. <https://doi.org/10.4236/jhrss.2020.84015>
- World Bank. (2021). *Small and medium enterprises finance: Improving SMEs' access to finance and finding innovative solutions*. World Bank Group.
- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper and Row.