INNOVATIVE TECHNOLOGY AND COST REDUCTION OF SELECTED SMES IN NORTH-CENTRAL NIGERIA

Ibrahim Bamidele HAMZAT Ph.D

Ibrahim.hamzat@kwasu.edu.ng

Department of Business and Entrepreneurship, Faculty of Management and Social Sciences, Kwara State University, Malete

&

Ibrahim Waheed Ph.D

Department of Marketing, Faculty of Management Sciences, University of Ilorin

Ibrahimwaheed0024@gmail.com

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Abstract

Global technological advancement has made it possible for knowledge and technology to be transferred beyond national boundaries, as well as for continuous improvement among SMEs. Even during the most recent slowdown in global productivity growth, technology transfer has aided in the emerging market's innovation and productivity gains. Advances in living conditions and salaries are mostly due to technological innovation. Many businesses around the world anticipated that emerging countries would see quicker rates of revenue and profitability growth due to the transfer and spread of technical innovation. Globalization 4.0 has not, however, resulted in greater earnings for small and medium-sized businesses in developing nations (Zainawa, 2006). One is forced to investigate the reasons behind this and offer a solution. This study's primary goal is to assess the affluence of technological innovation on Nigerian SMEs' cost reduction performance. With the SMEs in the chosen north-central Nigerian states, a survey research methodology was used. A questionnaire and an interview were employed in the study as data-gathering tools. 360 copies of the structured questionnaire were distributed to selected businesses in Kogi State, Kwara State, and the Federal Capital Territory (FCT) using multistage sampling approaches. To evaluate the effect of technical innovation on the performance of SMEs, both descriptive and inference-based statistics were employed using multiple regression tools. Even during the most recent phase of sluggish global economic *growth, technology transfer has contributed to increased innovation and productivity of SMEs in developing markets.*

Keywords: Cost efficiency, Innovation, SMEs, and Technology

1.0 Introduction

The issues mankind faces today include geopolitical conflicts, environmental concerns, employment automation, and the rapid rate of development. The global dissemination of technical innovation has facilitated cross-border knowledge and technology transfer, as well as continuous

improvement and correction. Even during the most recent phase of sluggish global productivity growth, technology transfer has aided in the rise of productivity and innovation in emerging markets. The rise in earnings and living standards is mostly due to technological advancements. Income and standard of living have improved mostly due to technological advancements. The dissemination of new information across international borders is essential to the world's expansion and progress since it does not always develop everywhere and concurrently (WEO, 2018). To meet standards in a competitive sector, Management needs to ensure that resources are used carefully and effectively. Reasonable expenses must be incurred. For a company to regulate and cut down on unnecessary costs, cost control and reduction are critical. The business may grow its market share and take the lead in the industry by having a pricing competitive advantage (Lockey, 2002).

Most organizations find it challenging to operate at the frontiers of cost efficiency, and any company that wants to maintain operational sustainability must enhance its offerings. Lately, there has been a global increase in operating costs for many businesses, which may trigger an inevitable cost management and reduction scheme. Consequently, globalization. It was projected that every developing nation would see quicker rates of revenue and profitability growth due to the transfer and dissemination of technical innovation. However, with globalization 4.0, small and medium-sized businesses in developing nations do not appear to be more efficient and meet up with expected revenue (Zainawa, 2006). One is forced to assess the reasons behind this and offer a solution.

i. **Research Question**

How much has technological innovation impacted small and medium-sized firms' ability to cut costs in the chosen North-central Nigerian states?

ii. Research Objective

To evaluate the degree to which technological innovation influences small-scale business cost reduction in the selected North-central Nigerian States.

2.0 Literature Review

Three categories of relevant literature were evaluated in this unit: conceptual, theoretical, and empirical reviews. Many scholars have written about SMEs and technological advancements worldwide, some of these reviews will be used in conjunction with this study, with critical analysis where needed.

i. Small and Medium Enterprises

Small and Medium-Sized Businesses SMEs lack a commonly agreed-upon definition (Beyene, 2002). As the terms, micro, small and medium imply, capacity has been taken into consideration in many classifications. Other scholars have considered value of assets and the number of employee**s.** According to Hashim (2000), MSMEs are characterized by many elements and standards, including location, organization, size and structure, number of employees, sales volume, asset value, and ownership via innovation and technology. The phrase "small, medium, and micro enterprises" (SMME) is used in South Africa, but more recently, in Nigeria, the term "micro" was adopted from the SME to stand for "micro, small, and medium enterprises" (MSME). According to Micro, Small, and Medium Enterprise (2012), a micro-enterprise is any business with workers of between one and nine and assets value of less than five million Naira, without value of land and buildings. Small businesses are those with more than 5 million naira in total assets (not including land and buildings) but less than 49 workers. The term "medium enterprises" refers to businesses that employ between 50 and 200 people and whose total assets, excluding land and buildings, are above 50 million Naira but not above 500 million Naira. Micro firms are those with annual sales of little more than 500,000 naira. Nigeria's Central Bank (2012) however, defined micro-businesses in Nigeria have capital bases of less than 100,000 naira. The CBN In its 1988 monetary policy circular No. 22; yet, the average Nigerian small firm invests less capital. Thus, Nigerian small enterprises need to be redefined. According to Adeyemi (2014), the person who

started the company frequently has two responsibilities: being the owner and the one in charge of organizing, leading, and managing the processes that result in the production of value for the company. According to the Central Bank of Nigeria (2012), there would be conflicts in the categorization system, with the employment-based classification being given priority. If an organization has 49 people and assets valued at 52 million naira. It is seen as a small firm.

ii. Benefits of SMEs

The significance of small and medium-sized roles in global economies cannot be overstated. Its importance to the global economic growth of economies cannot be overlooked. According to academics Ahmed (2006), Ojo (2009), Thurik and Wennerker (2004), Westhead and Burrows (2008), and others, small-scale industry is rather important. Small-scale business has a greater chance of boosting the national economy by producing the commodities and services that drive Nigeria's economy. Effective and efficient use of regional raw materials, creation of jobs, import substitution, and self-sufficiency are all made possible by small-scale businesses. Other academics include Asare et al. (2015), St. Piere et al. (2015), Fisehe and Oyalana (2015), Munro (2013), Ayyagari et al. (2007), and Zeng et al. Al (2010) and (iQualify uk, 2023).

They proposed that SMEs play a critical role in reducing poverty and promoting sustainable economic growth; Above all, they ought to concentrate on fostering local development and community development in rural economies across the globe to eradicate poverty, inequality, and unemployment in this sector. The ability to use local resources, such as raw materials, savings generated locally, the supply chain for self-employment, and the opportunity to teach semi-skilled labour via apprenticeship are additional significant aspects that contribute to the economy (Asan et al. 2015). In summary, SMES leverage a local technology foundation, promote valued group involvement, train for meaningful and entrepreneurial skills, and alter way they make use of their money resources (Fiseha and Oyalana, 2015). According to Abdulraheem, Yahaya, Etudaiye, and Abogun (2012), the GDP, employment creation, and export revenues are other comparisons that highlight the significance of small and medium-sized businesses. Devos and Chen (2022) stated that, SMEs is making a driving positive social, environmental and economic change is often ignored. Yet, these businesses play significant roles in shaping the growth, innovation and sustainability of our local, regional and global economies

iii. Business Performance

Scholars have looked at performance from different perspectives. The notion of a firm's performance is contingent upon the stakeholders' viewpoint, which focuses on fulfilling the requirements of a subset of individuals affected by the organization's activities, and the economic perspective, which emphasizes the obligation of the company to optimize profits (Aifuwa, 2020). This explanation states that the performance of a company is comprised of both financial and non-

financial performances, which are commonly referred to as strategic or operational performances. According to Nnamani, Onyekwelu, and Ugwu (2017), a business's financial performance is a purely subjective measure of how successfully it uses its resources to generate revenue. An organization's financial performance can be categorized into two groups: profitability and growth. Growth in market share, assets, total revenue, net income, and workforce size are all components of the profit dimension.

The growth dimension comprises primarily the following: market value performance (EPS), net income/revenue, earnings before interest, tax, depreciation, and amortization margin (EBITDA), economic value added (EVA), return on assets (ROA), return on equity (ROE), and return on investment (ROI). The growth component of success is reflected in market share growth, asset growth, net revenue growth, net income growth, and numerous employee growths. On the other hand, variations in stock price are comprised of variances in dividend yield, market value added (MVA), stock price volatility, and Tobin Q (Santos & Brito, 2012). An alternate method of measuring performance is through non-financial performance measurements, which include corporate governance, social, and environmental factors, and employee performance. The study allowed us to assess a company's non-financial and financial performance qualitatively, based on the volatility of stock prices, dividend yield, and market v With the help of the study and the insights of financial professionals, we were able to evaluate a company's non-monetary as well as financial health qualitatively. According to Santos and Brito (2012), a few of these are cost-efficiency, market share, and operational effectiveness.

iv. Small and Medium Scale Enterprise

Over the years, policies affecting small and medium-sized firms have changed in both developed and developing countries. Nigeria's first national policy for small and medium-sized enterprises (SMEs) was released by the Federal Executive Council (FEC) in 2007. Later, in 2015, it was revised to take into consideration modifications to the social and economic environment in which SMEs operate. The Nigerian Small and Medium Enterprises Development Agency (SMEDAN) created it. According to the policy, small businesses are those that employ between 10 and 49 people and have assets between 10 and 99 million Naira (property and buildings excluded). According to the policy, medium-sized Businesses are defined as those that have between 50 and 199 employees and net assets between 50 and 100 million Naira (excluding both the structure and the land). According to the policy, medium-sized businesses are those that employ between 50 and 199 people and have net assets between 50 and 100 million Naira (property and buildings excluded). Additionally, under the regulation, businesses with fewer than ten employees are categorized as micro-enterprises.

It's critical to remember that in Nigeria, the policy's definition of a small and medium-sized enterprise (SME) gives more weight to the quantity of employees than the asset base (SMEDAN, 2015). It was made by the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN). As per the policy, small enterprises are defined as those that have assets between 10 and 99 million Naira (excluding property and buildings) and employ between 10 and 49 persons. As to the guideline, firms classified as medium-sized are those that have net assets of between 50 and 100 million Naira (excluding property and buildings) and employ between 50 and 199 persons. Additionally, businesses with less than ten workers are classified as micro-enterprises under the rule. It's crucial to keep in mind that in Nigeria when defining a small and medium-sized firm (SME), the policy prioritizes workforce size over asset base (SMEDAN, 2015).

v. Cost reduction

To meet standards in a competitive business, Management needs to guarantee that resources are used carefully and effectively. Reasonable expenditure must also be incurred. For a company to regulate and cut down on unnecessary costs, cost control and reduction are critical. With a pricing advantage, the business may grow its market share and take the lead in the industry (Lockey, 2002). Recently, there has been a global increase in operating costs for businesses, which could result in unavoidable cost control and reduction plans. As a result, most organizations find it challenging to operate at the frontiers of cost efficiency, and for their operations to be sustainable, all businesses must enhance their product offerings.

2.2 Theoretical review

This work reviewed the Resource-Based View Theory as the adopted theory underpinned this study.

i. Resource-Based Theory

An organization's resources are examined and assessed using the Resource-Based View (RBV) to ascertain how it sustains a competitive advantage over time. Corner (1991) highlighted that a company's capacity to function uniquely depends on whether it possesses specific assets and competencies. This theory takes an inside-out or firm-specific approach to answering the question of why companies succeed or fail in the marketplace. Furthermore, Barney (1991) maintained that firms might use resources that are rare, valuable,unique, and non-substantial to establish and maintain a competitive advantage. They can then perform better by utilizing this edge. An organization is a combination of its physical, human, and organizational resources, according to Barney (1991). For a firm to succeed over the long term and maintain a competitive advantage, its resources need to meet the following (i) Priceless (ii). Seldom (iii) Inadequate Repeatability (iv) Non-Substitutable.

i. Valuable Resources: A resource is deemed valuable if it provides strategic value to the organization. A resource is useful if it helps organizations take advantage of market opportunities

and reduces market dangers. If a resource does not improve or add to the firm's value, it is meaningless to have it.

ii. Scarce Resources: Finding resources among the companies' present and potential competitors must be difficult. Thus, resources need to be exceptional to provide a competitive edge.

iii. Imperfect Imitability: This denotes that the resource will not be replicable or mimicked. A bottleneck for imperfect imitability may result from many things, like difficulty obtaining resources or an ambiguous relationship between competitive benefits that is only noticeable when businesses without these resources are unable to acquire them.

iv. Non-substitutability: The resources state that a resource cannot be substituted for another resource. Its competitor cannot equal a portion of its output with alternative resources.

Furthermore, according to Barney (1991), a company's valuable resources must enable it to act and behave in a way that boosts profits, lowers expenses, raises sales, or creates other types of financial value for the business. It helps business managers understand why skills could be considered a company's most valuable asset and how to use them to improve business performance. The resources of the organizations are separated into:

i. Physical capital resources: technology, machinery, and plant.
ii. Human capital resources, comprising wisdom, skill, and insight
iii. Organizational Capital Resources or Formal Structure

As a result, the valuable resource is often verified in two ways: first, a resource may be viewed as valuable (low cost) if it lowers a firm's expenses; and second, a resource can be viewed as valuable (high revenue) if it raises a firm's income. Accordingly, priceless resources might be employed to implement fresh strategies that increase productivity and effectiveness (Barney, 1991), boost client happiness (Bogner and Thomas, 1994: Verdin and Williamson, 1994), or cut costs (concerning the competition). Peter, 1993; Barney, 1986). A resource is essentially useful if it aids in an organization's performance improvement in comparison to its rivals.

According to this hypothesis, businesses have resources that provide them a competitive edge and improve their long-term success. Having valuable and uncommon resources can help you gain a competitive edge. To the degree that the company can guard against resource constraint, transfer, or substitute, that advantage can be maintained across extended periods (Frawley & Fahy, 2006). Information system resources might have many of the characteristics of dynamic capabilities and could be helpful to businesses in a setting that is changing quickly. Information resources might not immediately put a company in a position of superior sustainable competitive advantage, but if they support the company in gradually developing, adding, integrating, and releasing other important resources, they might be essential to the company's long-term competitiveness in uncertain situations.

In a setting that is changing quickly, resources like sufficient funding and skilled labour are essential for the success of globalization initiatives (Wade & Hulland, 2004). Market entrance strategies' efficacy and success may be influenced by dynamic capabilities, which are made up of resource management actions and procedures. It makes sense that a business having adequate financial resources will have more successful market entrance plans. This theory illustrates how a

firm's resources are an important consideration to consider when opting to enter a market, which makes it significant to the research.

i. Criticism of the Resource-Based Theory

Priem and Butler (2001) list the following as a few critiques of the resource-based paradigm that have received a lot of attention: According to the tautological resource-based view, a firm's resource configuration can provide the same value, hence having diverse resource configurations would not provide it a competitive edge. Following were some criticisms of this theory:

i. The characteristics required to distinguish a resource as valuable are not explained by the theoretical framework.
ii. If the resources of all businesses are heterogeneous, then every resource turns unique or uncommon at some point in the study.
iii. The resource-based view's central tenet—that managers may use a resource-based view strategy to generate a persistent competitive advantage—is contradicted by the cognitive impossibility challenge.
iv. Competencies and capacities can be applied by all businesses to produce the same outcome.
v. The researcher looks to experimentally evaluate the RBV's central claim, which is that the resource should be identified ex-ante to determine its strategic worth ex-post.
vi. The absence of a chain of causality
vii. Asymmetry in assumption regarding specific firm management strategies.
viii. The accumulation of strategic resources.

iii. Application of the Resource-Based Theory to the Study

Because it is argued that a firm's persistent competitive advantage is built on its valuable, uncommon, unique, and non-substitute resources, this idea is pertinent to the research. The capacity of the business to generate or get these resources influences its competitive advantage and overall success. Enterprises operating in industrialized and developing nations contend with each other in the same international arena. The firm's capacity in terms of people, materials, and equipment that it has at its disposal determines Its capacity to acquire, generate, and maintain a competitive edge.

2.3 Empirical Review

There are several empirical pieces of evidence relating to the work understudy, Audrey and Jaraji (2016) investigated how Tanzanian SMEs' performance was affected by innovation. Studies on innovation and its impact on performance were thought to have mostly focused on the West, Middle East, and Far East, with very little empirical evidence being found in Africa, according to the review of Empirical Evidence from the literature study. The review's conclusions demonstrate that there is inconsistent evidence about whether innovation in general affects businesses' success.

Additionally, Scholars have found a wealth of empirical data in their linked investigation. Akinwale, Adepoju, and Olomu (2017) used a survey of 1000 SMEs from 2009 with a 52% response rate to investigate the impact of technological innovation on SMEs' profitability in Nigeria. With a probability value of 0.0529, 0.0624, and 0.0086, respectively, at a 10% level of significance, the least square method result demonstrated that research and development spending by businesses, as well as product and process innovation, had a significant effect on the firm's performance.

A 2017 study by Abdullah, Hassan, and Muhammad examined how technological innovation affects small and medium-sized enterprises (SMEs). Descriptive and regression analysis were employed in the research to determine the statistical significance of the effects of marketing, organizational innovation, and innovation on the chosen SMEs. According to Subrahmanya (2011), the development of SMEs' sales is largely dependent on the innovation performance of their firm. He reinforced the argument that innovation, sales, and factor inputs influence a company's success and that these components combine to improve an organization's economic performance through increased growth and sales turnover.

3.0 Methodology

In this study, SMEs in a few states in north-central Nigeria were the subjects of a survey research methodology. A structured questionnaire consisting of 360 copies was distributed to Kogi State, Kwara State, and the Federal Capital Territory (FCT) using Stratified and quota sampling as a mean of multistage sampling approaches as obtained from the population of 5268 that constituted the study using EpLinfo Statistical Software. The effect of technological innovation on the SMEs' cost reduction was evaluated using a combination of descriptive and inferential statistics with particular attention to multiple regression.

4.0 Data Presentation and Analysis

The contains the presentation of data collected and analyzed from the field and analyzed using frequencies, mean, median and multiple regression analysis.

Table 1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.377[a]	.142	.132	.38448	1.645

a. Predictors: (Constant), Trialability, Integration of Technology, Compatibility, Complexity
b. Dependent Variable: Profitability

Table 1 shows the model summary revealed a multiple regression between the proxy of technological innovation on the profitability of small-scale businesses in North central Nigeria. Table 4.16 revealed an R-value of 0.377 and an R^2 value of 0.142. and the standard error indicated a value of 0.38448. The model also revealed a Durbin-Watson value of 1.645 indicating the absence of multi-collinearity. The R-value indicates that the trialability, integration of technology, compatibility and complexity all representing technological innovation affect the profitability of small-scale businesses. This implies that a unit increase in any of the proxies would amount to a 38% increase in profitability. The other 62% accounted for factors not captured in this study.

Table 2 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.993	4	1.998	13.517	.000[b]
	Residual	48.190	326	.148		
	Total	56.183	330			

a. Dependent Variable: Profitability
b. Predictors: (Constant), trialability, Integration of Technology, Compatibility, Complexity

Table 3 above table presents the results of an analysis of variance (ANOVA) for the dependent variable "Profitability" with four predictors: "trialability," "Innovation of Technology," "Compatibility," and "Complexity." The total variability explained by the regression model is 7.993. The model has 4 degrees of freedom, indicating the number of predictors. The mean square is calculated by dividing the sum of squares by the degree of freedom. Here, it is 1.998. The F-value is a ratio of the mean square regression to the mean square residual. In this case, it is 13.517. The significance value (p-value) measures the statistical significance of the F-value. The significance level is denoted as "b" and is extremely low (".000"), indicating a highly significant relationship between the predictors and the dependent variable. The unexplained variability or error remaining after accounting for the regression model is 48.190. The residual degree of freedom is 326, which is the total number of observations minus the degrees of freedom in the regression model. The mean square is calculated by dividing the sum of squares by the degree of freedom. Here, it is 0.148. The total variability in the dependent variable is 56.183.

The ANOVA table indicates that the regression model, consisting of the predictors "trialability," "Integration of Technology," "Compatibility," and "Complexity," significantly explains the variability in the dependent variable "Profitability." The predictors collectively contribute to the model's ability to predict profitability, as indicated by the low p-value (".000") in the regression section. The residual section shows the remaining unexplained variability or error.

Table 4 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.766	.228		12.118	.000
	Integration of Technology	.061	.039	.088	1.542	.124
	Compatibility	.216	.049	.264	4.421	.000
	Complexity	.123	.041	.183	3.002	.003
	Trialability	-.035	.032	-.067	-1.093	.275

a. Dependent Variable: Profitability

Table 4. above provides the coefficients for the regression model with the dependent variable "Profitability" and the predictors "Integration of Technology," "Compatibility," "Complexity," and "Trialability." The constant term in the regression equation is 2.766. The standard error associated with the constant term is 0.228. The t-value measures the significance of 12.118. The significance level (p-value) for the constant term is extremely low (".000"), indicating that it is statistically significant.

Integration of Technology: Unstandardized Coefficient (B): The unstandardized coefficient for the "Integration of Technology" predictor is 0.061. The standard Error: the standard error associated with the "Integration of Technology" coefficient is 0.039. and Standardized Coefficient (Beta): the standardized coefficient represents the effect of the predictor when the variables are standardized. Here, it is 0.088. The t-value: The t-value for the "Integration of Technology" predictor is 1.542. The significance (Sig.): the p-value for the "Integration of Technology" predictor is 0.124, which is not statistically significant at a conventional significance level (e.g., 0.05).

Furthermore, the compatibility: unstandardized Coefficient (B): the unstandardized coefficient for the "Compatibility" predictor is 0.216. Standard Error: the standard error associated with the "Compatibility" coefficient is 0.049. Standardized Coefficient (Beta): the standardized coefficient for "Compatibility" is 0.264. The t-value: The t-value for the "Compatibility" predictor is 4.421. The significance (Sig.): the p-value for the "Compatibility" predictor is extremely low (".000"), indicating that it is statistically significant.

The Complexity as predictor: unstandardized Coefficient (B): The unstandardized coefficient for the "Complexity" predictor is 0.123. Standard Error: the standard error associated

with the "Complexity" coefficient is 0.041. Standardized Coefficient (Beta): the standardized coefficient for "Complexity" is 0.183. the t-value: The t-value for the "Complexity" predictor is 3.002. Significance (Sig.): the p-value for the "Complexity" predictor is 0.003, indicating that it is statistically significant.

Trialability: unstandardized Coefficient (B): The unstandardized coefficient for the "trialability" predictor is -0.035. Standard Error: the standard error associated with the "trialability" coefficient is 0.032. Standardized Coefficient (Beta): the standardized coefficient for "trialability" is -0.067. The t-value: The t-value for the "Trialability" predictor is -1.093. the significance (Sig.): The p-value for the "trialability" predictor is 0.275, which is not statistically significant.

The coefficients provide information about the relationships between the predictors and the dependent variable. The "Compatibility" and "Complexity" predictors have statistically significant positive relationships with "Profitability." The constant term is also statistically significant. However, the "Integration of Technology" and "trialability" predictors do not appear to have statistically significant relationships with "Profitability" based on their p. In all therefore the null hypothesis is rejected, and the alternate hypothesis is accepted based on the level of significance (P=0.000). In addition, figures 4.1 and 4.2 revealed the linearity and the normality of the regression data.

Findings, Conclusion, Recommendation

1. Findings

The study discovered the following key findings:The multiple regression analysis revealed a positive significant effect of technology Innovation and profitability of SMEs in the selected states in North-Central Nigeria. This aligns with the study of Subrahmanya (2011) stated that the importance of Innovation performance of business performance for sales growth of SMEs, and that the performance of the business is determined in turns of Innovation and factor inputs enabling a business to achieve better economic performance in the form of higher growth and sales turnover. This is also in consonance with the findings of Ayyagari, (2022), that technological adoption allows a business to perform effectively and efficiently. Also, the thematic analysis revealed a congruence among the various groups on how technological diffusion affects performance.

2. Conclusion

The study concluded that: The profitability of SMEs can be enhanced by the adoption of technology innovation as compatibility, complexity, and observability. Also, firms can assess more market share through the integration of the economy through; FDI, trade openness, liberalization, export, and import. Also, the cost of production can be attained through tele-migration which enhances the efficiency of the business firm. The quality products of SMEs can be obtained by outsourcing the technical knowledge to experts while concentrating on the firm's core competency.

3. Implication of the study

The implications of the study to various stakeholders and the broader economy are: Increased Competitiveness: Adoption of innovative technology and cost reduction strategies can enhance the competitiveness of SMEs in the region. By streamlining processes, reducing overhead costs, and improving product quality, these businesses can better compete in local, regional, and international markets. And Job Creation: SMEs are significant contributors to employment in Nigeria, and implementing innovative technology can lead to increased productivity, potentially

leading to more job opportunities within these enterprises. As SMEs grow and expand, they often hire more staff to meet demand, thereby contributing to job creation and economic development in the region. In addition, Improved Economic Growth: A thriving SME sector can contribute to overall economic growth in the North-Central states of Nigeria. By reducing production costs and increasing efficiency, SMEs can generate more revenue, reinvest in their businesses, and contribute to the GDP of the region. Also, enhanced sustainability: Innovative technology can also help SMEs adopt more sustainable practices, such as reducing energy consumption, minimizing waste, and implementing environmentally friendly production methods. This can lead to long-term sustainability for both the businesses and the environment. Furthermore, attracting investment: A focus on innovative technology and cost reduction measures can make SMEs in the North-Central states more attractive to investors. Investors are often drawn to businesses with strong growth potential and a competitive edge, which can result from the adoption of innovative technologies.

4. Recommendation

Based on the findings and conclusions drawn from the study the following recommendations were made:

i. Small and Medium Enterprises should adopt technological innovation with the use of capital-intensive and other modern equipment available to boost their profitability.
ii. The SMEs in Nigeria should therefore make a concerted effort to train and re-training the employees on the adoption of innovative technology in the operations of SMEs in the selected State and beyond.

5. Suggestion for Further Study

i. The potential researchers should focused on other geo-political zone of the country to exploit and explore the peculiarity of the technology innovation on the cost reduction of SMEs in Nigeria.
ii. Also, other parameters of measuring SMEs performance could also be looked into to give varieties of information for the government, Investor and Stakeholders alike.
iii. Other sources of gathering information could be adopted to keep room a more robust data analysis.

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