



Analyzing the Influence of Business Environment on Performance of ICT Firms in Nigeria

Michael Segun Ogunmuyiwa¹

Abstract: The study investigated the influence of business environment on the performance of ICT firms in Lagos State, Nigeria. Survey research design and purposive sampling technique were employed to select a sample of 156 from a total population of 257 employees drawn from Zinox Technologies and Spectranet Nigeria Limited. Data was collected through a 5-point Likert rating questionnaire administered to the selected ICT firms. Empirical findings from the O.L.S regression technique revealed that all the explanatory variables (infrastructural environment, insecurity and political environment) are the critical variables determining fluctuations in ICT performance in Nigeria. Albeit, the coefficient of insecurity was not in conformity with the a-priori expectation, but it was significant at the 5 percent level. Hence, ICT and other allied firms should be cognizant of the business environmental variables particularly insecurity because of its stronger influence on the performance of ICT firms in Nigeria. Government at all levels should provide enabling infrastructural and political environment to improve performance and growth of ICT firms in Nigeria.

Keywords: Infrastructural environment; Insecurity; Political environment

JEL Classification: Q51; Q56; F52; L25

1. Introduction

The environment of business connotes the forces in and around the business firm that can make or mar its success. The business environment is a critical factor in determining the performance, growth as well as the continuity of firms. The forces called environmental factors pose a lot of challenges and threats as well as opportunities to business firms, particularly as it relates to the external environment

¹ Olabisi Onabanjo University, Nigeria, Address: WVF9+6R2, 120107, Ago-Iwoye, Nigeria, Corresponding author: msogunmuyiwa@gmail.com.

factors (political, legal, economic, infrastructural, socio-cultural, demographic, religious and technological as well as security) which to a larger extent are beyond the control and confines of the organization. From the internal front, the forces here (the company itself-the vision, mission and objectives of the firm; the customers; the vendors; the intermediaries; the shareholders, the financial intermediaries as well as the public) are to some extent controllable and amenable by the organization. So, the firm can maximize its strengths while equally minimizing the weaknesses posed by these factors. These forces are best analyzed in relation to business performance using the Strength, Weakness, Opportunities and Threat (SWOT) analysis.

The environment of business is very important to the success and survival of firms and a healthy business cannot survive in an environment that is unstable (Adeeko, 2017). Business success is a function of how well it adapts itself to its environment. No doubt, the political environment, economic environment and technological environment are expected to continue to face significant challenges and risks in the foreseeable future.

The business environment is vital for the survival of the ICT firms and there is a need to explore factors that can enhance ICT firms' performance during periods of economic boom and minimize weaknesses and threats from other factors during the periods of economic recession, downturn, and crisis in order to appropriate economic environment for the performance of ICT firms. Many businesses across the world are currently facing several environmental challenges coupled with the global pandemic and variations in the macroeconomic fundamentals have all been attributed to poor performance of firms. In sub-Saharan Africa and particularly in Nigeria, some enterprises have packed up, some staggered, few have collapsed and relocated as a result of unfavourable environmental conditions affecting business activities such as infrastructural environment, insecurity and political environment. These factors make Nigeria's business environment unfriendly and unsafe for investment.

Some studies found infrastructure environment to be the most important factor that explains firm's performance in Bangladesh, China, Ethiopia, and Pakistan (Dollar et al. 2005). Infrastructure (as captured by power) enhances firm performance in Bangladesh (Fernandes 2008). In addition, Li (2007) noted that most countries with fewer infrastructures than China feature positive infrastructural effects. Some experts found insecurity to be an important factor facing development of business particularly in developing countries. Investors are discouraged because of the insecurity problem especially in the ICT firms as it makes investment uninviting to investors (Adegoke, 2013, 2014). The increase and uncontrollable crime rate, religious and high level of insecurity in Nigeria have resulted in the inability to carry out genuine business activities without fear. There is high level of insecurity in the country, particularly, in the northern zone where (Boko Haram) has become a threat

to the survival and development of businesses in this axis. No investor will be interested in investing where the investment is not secured. According to Okonkwo and Obidike (2016), the condition of insecurity in Nigeria increases the cost of running businesses as a result of taking defense against business uncertainty and risk.

Political environment has also been seen by scholars as an important factor facing business enterprises. Ahsan (2018) posits that political factors and environment of a country may affect firm performance and can also introduce a risk factor that can cause the performance of firms to suffer losses or compromise over its profit stream.

1.1. Problem Statement

No doubt, there are myriads of environmental factors impeding on the performance of ICT firms in Nigeria, however past works have not dwelt on the impact of infrastructural environment, insecurity and political environment on ICT firms performance in Lagos State, Nigeria. This is what this study hopes to investigate. The rest of the study is divided into three (3) sections. Section II focuses on the review of relevant literature while section III is on the methodology and empirical results. Section IV concludes the study and proffers recommendations.

2. Review of Past Studies

2.1. Concept of Business Environment

The concept of business environment could be looked at from internal and external environmental elements that affect the operation of business firms. The internal influences are the controllable environmental elements which the organization and its managers have control on. These factors include the vision and mission statements of the firm, the firm's core values and objectives, the employees in the organization, the suppliers, the marketing intermediaries, the shareholders as well as the financial institutions and intermediaries.

The external factors are largely uncontrollable factors that impede on the organization such as political environment, insecurity, infrastructural environment, socio-cultural environment, economic factors, technological environment, religious and demographic environment. Obiwuru, Oluwalaiye & Okwu (2011) defined business environment as the totality of the external and internal situations that affect the survival and growth of an enterprise. As put by Adeoye & Elegunde, (2012), the environment of business includes both the operational and physical elements that affect business enterprises' flow of activities. These elements include customers, competitors, suppliers, distributors, government activities, the economy, cultural and social factors, innovations and technological developments among others.

2.2. The Concept of Performance

Firm performance could be defined as the effort expended by an enterprise to attain and achieve its stated goals and objectives. In the words of Adeeko, (2017), performance is the resultant of efforts in form of activities of the business enterprise which includes the firm's strategy and operational activities, management of all segments of business enterprise such as the human resources, finance, production and marketing. Mark and Nwaiwu, (2015) opined that performance is the actual output as against expected output. According to them, firm performance entails how well the business enterprise is administered in terms of the value perceived by customers in relation to the organization's delivery.

2.3. Review of Past Works

There is replete of studies on the relationship between environmental factors and performance of small and medium firms in developed as well as developing economies. For instance, Adu (2016) sought to find out the impact of external business environment factors on performance of small & medium sized enterprises in the Pharmaceutical Industry in Kumasi Metropolis. Data collected were analyzed using regression analysis. The results showed a positive relationship between macro-environmental elements- political, economic, technological and legal factors. Also, the results revealed a positive relationship between industry forces such as threat of entry, power of buyers, power of suppliers and competitive rivalry on performance.

Mohammed and Abdalla (2017) investigated the influence of internal environment on performance in public universities in Jordan. A sample of two hundred (200) faculty members using random sampling technique from (5) Jordanian public universities was made use of. One hundred and fifty (150) usable copies of the questionnaire (75% response rate) were finally made use of. Empirical results revealed that both internal organizational environment and performance excellence were at moderate levels. A positive correlation was also found between overall internal organizational environment and its individual elements (organizational structure, organizational culture, resources) and overall performance and its individual variables (quality of teaching, quality of academic programs, research and development).

Njoroge, Ongeti, Kinuu and Kasomi (2016) examined the influence of external environment on organizational performance. The population of the study consisted of 108 Kenyan corporations and data was collected from 98 institutions. The findings showed that external environment had a positive significant influence on all the indicators of performance. Also, the effect of external environment on organizational performance expected to be negative, showed a positive sign.

Nur, Haris, Nurdin and Jusni (2017) carried out a study on the impact of business environment, market orientation, strategy, and product innovation on business performance in the Real Estate in the city of Makassar. Structural Equation Modeling (SEM) using a sample size of 168 respondents was employed for the study. Findings showed a strong significance towards business environment in relation to business strategy and product innovation. Also, market orientation has impact on business strategy and product innovation. In addition, business environment also has direct impact on business performance. Idris and Farrah (2019) investigated the impact of environmental challenges of small scale business in Bauchi Central Market using descriptive and regression analysis. The results revealed that uneasy access to credit facilities, multiple taxations, poor market competitive advantage as well as low volume of sales affect performance of small scale businesses in the sampled area.

Salisu, Momoh and Uba (2019) analyzed the environmental factors affecting manufacturing SMEs in Kogi State, Nigeria. The survey research design adopted covered 171 SMEs in Kogi State. The findings revealed that business strategy has a significant negative relationship with profitability of SMEs. Also, operational strength and debt leveraging are positively and significantly related to SMEs profitability in Kogi State, Nigeria.

Arsalan, Arfan, and Rohail, (2020) examined the role of e-commerce on small and medium enterprises (SMEs) performance. A cross-sectional survey method was employed for the study. The outcomes of the study showed that top management support and competitive pressure have a positive and significant impact on e-commerce while the adoption cost and government support have an insignificant impact on e-commerce usage.

In addition, Ozoh, Okeke and Jacobs (2020) examined the effect of environment on organizational performance of small and medium enterprises in Anambra State, Nigeria. A sample of 304 was drawn from a population of 1393 SMEs in Anambra using a structured questionnaire. The O.L.S result revealed that economic, financial, technological as well as political environmental factors have significant effect on profitability of small and medium enterprises.

Ali, Awad and Abduilsalam (2020) investigated the factors affecting the performance of small scale construction firms and the likely measures to improve performance. Focus group participation was used to identify 82 measures comprising of internal measures implemented by the firm and external measures implemented by the government and other stakeholders. The findings revealed that the critical factors affecting performance are financial indiscipline by contractors, lack of experience, poor policy by commercial banks on SMEs, corruption, effects of globalization, multiple taxation, lack of entrepreneurship skills among others.

Abraham (2021) analyzed the impact the impact of external environmental elements on performance of micro and small scale enterprises. The population is made up of

395 Micro Scale Enterprises (MSEs) owners working in manufacturing, trade and service sectors. Drawing a sample of 199 from a 5-point Likert rate structured questionnaire and using both descriptive and inferential statistics, the results showed the existence of a significant and positive relationship between external environmental factors and industry performance in the sampled area. In addition, financial factors, infrastructure, work premises, trade fair factors as well as marketing factors exhibit significant effect on enterprises' performance while political/legal factors do not have a significant effect.

3. Methodology and Empirical Results

3.1. The Method

The study employed survey research design in gathering data and information. Sources of data consist of the responses from the sample population of employees from Zinox Technologies and Spectranet Nigeria Limited. The study population is made up of 257 employees of both firms distributed across various cadres as shown below.

Table 1. Population Distribution

Name of ICT Firms	Category of Respondents				Total Population	Percent (%)
	(Directors)	(Managers)	(Line Managers)	(Employees)		
Zinox Technologies Limited	14	29	42	54	139	54.1%
Spectranet Nigeria Limited	11	32	34	41	118	45.9%
	Overall Population Size				257	100.0%

Source: Zinox Technologies Ltd and Spectranet Nigeria Ltd (Field Survey, 2021).

Using the Taro Yamane sample size formula, a sample size of 156 was drawn from the population through the administration of a structured research questionnaire. The sampling technique is purely purposive and a 5-point Likert rating scale questionnaire was employed to obtain information from the respondents.

3.2. The Model

The model for the study is specified to capture the individual relationship between business environmental factors and performance of ICT Firms in Nigeria. The models are stated in behavioural forms as follow.

$$PICT = \alpha_0 + \alpha_1 IE + \mu \tag{1}$$

$$PICT = \beta_0 + \beta_1 IS + \mu \tag{2}$$

$$PICT = \gamma_0 + \gamma_1 PE + \mu \tag{3}$$

Where $PICT =$ Performance of ICT Firms, $IE =$ Infrastructural environment, $IS =$ Insecurity and $PE =$ Political

Where α_0 , β_0 and γ_0 are the constant parameters while α_1 , β_1 and γ_1 are the slopes of the equation parameters to be estimated.

In

– priori terms α_1 and γ_1 are expected to exhibit a positive sign while β_1 is expected to exhibit a negative relationship with performance of ICT Firms in Nigeria.

Thus, α_1 and $\gamma_1 >$ while $\beta_1 < 0$ (4)

3.3. Analysis of Results

Table 2. O.L.S Regression Result Showing the Effect of Infrastructural Environment on Performance of ICT Firms in Lagos State, Nigeria.

Dependent Variable: PICT		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	Tc	Sig.
		B	Std. Error	Beta		
Model 1						
	(Constant)	1.700	.226		7.522	.092
	Infrastructural Environment	.200	.117	.203	1.709	.000
R = .203 ^a ; R ² = .041; Adj R ² = .027; F = 2.912; P = 0.000						

Source: Author's computation, 2021.

As shown in Table 2 above, the constant and the coefficient of infrastructural environment are positively signed in line with theoretical expectation. Also, the results expressed that infrastructural environment significantly affect the performance of ICT firms (t-value = 1.709, p = < 0.05). Hence, the null hypothesis is of no significant effect and by the above findings is rejected (H_{01}). The F-statistics ($F_c = 2.912$; $P = 0.000$) confirms the significance of the overall regression equation and the parameter estimates. Thus, infrastructural environment revealed a significant effect on the performance of ICT firms in Lagos State, Nigeria.

Table 3. O.L.S Regression Result Showing the Effect of Insecurity on Performance of ICT Firms in Lagos State, Nigeria.

Dependent Variable: PICT		Coefficients ^a				
Model 2		Unstandardized Coefficients		Standardized Coefficients	Tc	Sig.
		B	Std. Error	Beta		
	(Constant)	1.689	.297		5.687	.252
	Insecurity	.126	.109	.139	1.156	.000
R = .139 ^a ; R ² = .019; Adj R ² = 0.005; F = 1.333; P = 0.000						

Source: Author's computation, 2021

Results in Table 3 revealed that insecurity exert a positive relationship with ICT performance in negation of the a-priori expectation. In addition, a significant relationship between insecurity and performance of ICT firms ($t = 1.156$; $p < 0.05$) exists, which confirms that insecurity significantly determines the performance of ICT firms in Nigeria. Hence, the null hypothesis is hereby rejected (H_{02}). Thus, insecurity generates more businesses for ICT related activities needed to curb insecurity in Nigeria. The F-test ($F_c = 1.333$; $P < 0.05$) also confirms the significance of the overall regression parameters. Thus, insecurity has significant effect on performance of ICT firms in Lagos State, Nigeria.

Table 4. O.L.S Regression Result Showing the Effect of Political Environment on Performance of ICT Firms in Lagos State, Nigeria.

Dependent Variable: PICT		Coefficients ^a				
Model 3		Unstandardized Coefficients		Standardized Coefficients	Tc	Sig
		B	Std. Error	Beta		
	(Constant)	1.788	.297		6.020	.257
	Political Environment.	.125	.109	.139	1.147	.000
R = .137 ^a ; R ² = .019; Adj R ² = .004; F = 1.307; P = 0.000						

Source: Author's computation, 2021

Table 4 above indicates that political environment positively and significantly affect the performance of ICT firms (t -value = 1.147; $p < 0.05$). Hence, the null hypothesis is of no significant effect and by the above findings is rejected (H_{03}). The F-statistics ($F_c = 1.307$; $P < 0.05$) confirms the significance of the parameter estimates. Thus, political environment has significant impact on performance of ICT firms in Lagos State, Nigeria.

3.4. Discussion of Findings

The finding of the first hypothesis revealed that infrastructural environment has significant effect on performance of ICT firms in Lagos State, Nigeria. This finding is in line with the findings of Gado (2015) which explained that water supplies, constant power as an infrastructural resource significantly determines the performance of firms in the North West zone of Nigeria. Gado's (2015) study recommended that private sector should partner with government in infrastructural investment instead of each company providing its own infrastructures.

The result of the second hypothesis revealed that insecurity has a positive and significant relationship with performance of ICT firms in Lagos State, Nigeria. The implication of this is that, as insecurity increases, business increases and performance of ICT firms improves in Nigeria. This however has great implications for policy makers in Nigeria. Information and telecommunication activities (information monitoring, communication monitoring, CCTV Cameras, security surveillance etc) have increased tremendously since the beginning of insurgent activities in Nigeria almost Fifteen (15) years ago. This finding is in tandem with the finding of Okonkwo and Obidike (2016) which posited that insecurity in Nigeria compounds the cost of running businesses in an attempt of taking defense against business fluctuations and risk. In addition, political environment was found to exhibit significant influence on performance of ICT firms in Lagos State. The finding was in agreement with Ndife (2014a,b) who found that political environment has significant impact on business performance. Also, Adeoye (2012), in a study on the Nigerian food and beverage industry, found that political environment has a positive and a major effect on industry performance.

4. Conclusion and Recommendations

From the empirical findings a significant relationship between business environment and ICT firm's performance has been confirmed. Hence, the business environmental factors (infrastructural, insecurity and political) are the critical variables determining fluctuations in ICT performance in Nigeria. To improve performance and growth of the ICT sub sector, the business environmental variables particularly insecurity need be taken proper cognizance of by ICT and other allied firms in Nigeria. In addition, governments at all levels should put adequate machineries in motion with a view to eradicating insurgent activities as well as provide enabling infrastructural and political environment to improve performance and growth of ICT firms in Nigeria.

5. Future Works

Based on the outcome of this study, the potential for further research on business environment in the following areas are identified: (i) a further research on business environment and the sustainability of firms. This would focus more on the sustainability and continuity of the firm as this work already recognized performance of firms. (ii) Researches on business environment and firm's performance can also be conducted with a different research and analytical techniques in order to ascertain the consistency of findings from diverse approaches.

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