

Effects of External Business Environment on SMEs Performance

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Abstract

This study is aimed at investigating the effects of external business environment which includes complexity, dynamism, diversity and hostility on the SMEs performance. The study was conducted on SMEs operating in northeastern Nigeria. SMEs owners/managers were the respondents for the study. Survey method utilising self-administered and structured questionnaires was used to collect data from the owners/managers of the SMEs. Multistage sampling technique was used in selecting 470 SMEs from a population of 1,726. SPSS and PLS-SEM were used in the analysis of data. The study found that Environmental complexity and dynamism have positive and significant effects on SMEs performance. Unexpectedly, the study found insignificant relationship between environmental diversity, hostility and SMEs performance. Therefore, it is recommended that the SMEs owners/managers should pay more attention to the complexity and dynamism in the external business environment in order to achieve superior performance.

Keywords: environmental complexity, environmental dynamism, environmental diversity, hostility, SMEs performance

1. Introduction

Small and Medium Scale Enterprises (SMEs) are the basis for numerous nations' economic growth and development. Nations with competent, innovative, creative, proactive, appropriately interconnected and with high-performance SMEs would experience rapid economic growth and development through efficient utilization of human and material resources (Pulka, 2019). High SMEs performance can be achieved when the SMEs initiate, implement and sustain right strategies, decisions and policies that enable them to gain

competitive advantage, manage internal resources as well as external resources in the external environment (Pulka, 2019).

Literature have shown the importance and contributions of SMEs. Researchers such as Baporikar, Nambira and Gomxos (2016), Tarute and Gatautis (2014), Toma, Grigore and Marinescu (2014), Egena, Wombo, Theresa and Bridget (2014), Nkechi (2013), SMEDAN and NBS (2013) explained that the growing number of SMEs, entrepreneurial activities and entrepreneurs in an economy

forms an essential area of focus for governments, researchers and other stakeholders. This is because SMEs make tremendous contributions towards employment creation, growth of GDP and export earnings, thereby reducing unemployment, social, political and economic problems inherent in an economy. The contributions of SMEs can be classified into individual, societal and national levels.

Similarly, SMEs play a vital role in the society and country at large. They contribute to the growth of GDP, employment, export, creating values for local resources, technological adoption and improvement, the introduction of new technologies, the introduction of new products and services, the introduction of new industries, development of new markets and discovery of new sources of raw materials (Pulka & Ndubuisi, 2016). Similarly, it also serves in the mobilization and accumulation of capital resources for the establishment of new businesses and business expansion. Equally, SMEs are strengthening export earning of a country through international trade, and it assists in boosting capacity utilization of industries, creating linkages with international organizations through networking and giving the opportunities for development of SMEs into large enterprises (Shettima, 2017; Zafar & Mustafa, 2017; SMEDAN, 2012; Razak, 2011).

Similarly, according to Rogo et al. (2017), Belgium's SMEs contribute 99.8% of jobs. In

Ireland, SMEs contribute 99.5% of employment. In Germany, SMEs in the manufacturing sector contributes the total of 57% of the employment opportunities. In Taiwan, SMEs provides 70% of employment. This therefore drastically reduce the number of unemployed youth in the economy. In China, SMEs provides 75% of jobs in the country. According to Kenyan Economic Survey by KNBS (2016), SMEs contribute to about 84.8 % of all new jobs in the country. In Ghana, according to Ndumanya, (2013), the SMEs provides 85% of the jobs in the country. Surprisingly, in Nigeria, SMEs contribute 25% to employment (Shamsudeen, Yeng, & Hassan, 2016; Aminu, 2015). This indicates that SMEs in Nigeria are contributing to employment far less than other countries (Bature et al., 2018; Rogo et al., 2017; Naala & Mahmood, 2016).

In the same vein, Nigeria witness high mortality rate among SMEs (International Finance Corporation, 2016; Kushnir, Mirmulstein, & Ramalho, 2010). The report specifies that merely 2% of new start-up SMEs survive up to 5 years. SMEDAN and NBS (2013) explained that only 15% of the newly established SMEs barely survive the first five years. The report is supported by Hassan and Ogundipe, (2017), who reported that many SMEs failed in the first five years of establishment and go into extinction in the 6th to the 10th year of establishment. While

only about 5 to 10% of the SMEs have the chances to survive and grow.

Consequently, the study found some gaps in the literature. First, regardless of suggestions by researchers for models that could improve SMEs performance, still, there is a paucity of studies that investigated the relationship between external environmental characteristics (i.e. complexity, dynamism, diversity and hostility) and SMEs performance as propounded by Chi, Kilduff, and Gargeya, (2009) and Chi (2006). Second, there is a scarcity of studies that consider measuring SMEs performance as advocated by Santos and Brito, (2012). Third, there is paucity of studies conducted on external environmental characteristics and SMEs performance in northeastern Nigeria. Therefore, this study bridged these gaps by investigating the effect of the external environmental characteristics on SMEs performance in northeastern Nigeria. As such, this study investigates the effect of external environmental characteristics and SMEs performance.

2. Literature Review and Hypotheses Development

2.1 Environmental Complexity

Environmental complexity is the degree of heterogeneity among SMEs and varieties of products, services and nature of the market that exists. Mintzberg (1979) observed that complexity is the total sum and diversity of competencies, knowledge, information flow, access to resources and capabilities required

by SMEs for successful operations in any given external environment. Boyne and Meier (2009) explained that environmental complexity refers to the heterogeneity of the factors in the external environment that influence the operations and strategies of the SMEs. Chi, Kilduff, and Gargeya (2009) contended that complexity "refers to the extent that firms are required to have a great deal of knowledge sophistication about products, customers, or any others".

Moreover, to Miller (1993), environmental complexity provides different/numerous resources. Osborn and Hunt, (1974) viewed environmental complexity as the interactions between entrepreneurial risks, dependence and relationships among SMEs. Rosenbusch, Rauch and Bausch, (2011) and Otache (2015) argued that environmental complexity "refers to the amount of different information or knowledge that is needed for the SMEs to understand and operate in an external environment". Similarly, Nasiripour, Raeissi and Hosseini-Fahraji, (2012) expounded that in an external environment full of complexities, SMEs need sufficient and accurate information and knowledge about the happening in the external environment in which they are operating. Therefore, according to Nasiripour, Raeissi and Hosseini-Fahraji (2012), complexity of the external environment may be as a result of growing number of firms in particular industry, diversity of customers' needs and change in

the expectations of stakeholders. This could be further aided by rapid changes brought about by information and communication technology. Therefore, the study postulates the following hypothesis:

H01: there is no significant effects of environmental complexity on SMEs performance

2.2 Environmental Dynamism

The environmental dynamism refers to the rate of changes of innovation in the industry, market and uncertainty of the competition and customers. Wijbenga and van Witteloostuijn, (2007) viewed the external environment as mutable, subject to change and volatile. While according to Chi, Kilduff, and Gargeya (2009) dynamism "refers to the speed and predictability of change in the external environment, stemming from sources such as technological change, demand shifts, and competitive moves". Therefore, they argued that environmental dynamism is the frequency or degree at which the external environment is susceptible to change. That means the environment is not static or stagnant but keeps on changing. Dess and Beard, (1984) and Duncan (1972) viewed environmental dynamism as the prevalence of unpredictable and rapid changes with extreme increase uncertainties in the environment, which affects the operations of the SMEs.

Similarly, environmental dynamism is seen as the degree at which consumers/customers preferences are changing towards products,

services and firms as time goes on (Wijbenga & van Witteloostuijn, 2007). Judge and Miller (1991) and Hambrick and Mason (1984) established that in a dynamic environment, SMEs need to take into consideration different available and diverse alternatives to perform better than other SMEs who consider only one or few alternatives.

Moreover, Utterback (1994) discovered that unpredictable and quickly changing external environment might bring forth a wide range of opportunities to the SMEs. These opportunities can manifest in the form of a positive shift in demand for goods and services, new customers' fashion and needs, new technological and scientific methods of production and processing that positively enhance the SMEs performance. Rosenbusch, Brinckmann and Bausch (2010) propounded that as a result of rapid changes in the way competitors are behaving, changes in demand and change in technology due to environmental dynamism, complexity and diversity the current opportunities and resources might become obsolete and irrelevant for the SMEs thereby rendering them useless. They further added that if SMEs can assimilate these opportunities and resources, they can utilize them at the right time especially in difficult times; they can be in an advantageous position to achieve superior SMEs performance over their competitors. Riyadi and Munizu (2022) found that the external environment dynamics

improve firm performance. Therefore, the study hypothesised that:

H02: there is no significant effect of environmental dynamism on SMEs performance.

2.3 Environmental Diversity

Environmental diversity refers to the degree to which an organization is faced with homogenous or diffuse conditions (e.g. the number of end-use markets). Diversity affects organizational structure through the diversity of the work to be done (Mintzberg, 1979). Environmental complexity refers to the extent that organizations are required to have a great deal of sophisticated knowledge about products, customers, or whatever (e.g. the complexity of knowledge required to meet changing customer needs) as stated by Mintzberg (1979). Where organizations are confronted with diversity in terms of factors such as product or process technology, customer needs or customer location, the most effective way to combine jobs may be to organize them around the source of diversity (Robins & Decenzo, 2004; Wedel & Kamakura, 1999). Diversity refers to the degree to which an organization is faced with homogenous or diffuse conditions. Munificence is the degree to which an environment supports the growth of organizations within it, which relates to the level of competitive pressures in the environment as exemplified by the intensity of competition and the bargaining leverage

applied on companies by buyers and suppliers. Therefore, the study hypothesised that:

H03: there is no significant effect of environmental diversity on SMEs performance.

2.4 Environmental Hostility

SMEs that are operating in an external environment that is hostile; may experience scarce of opportunities and resources and that could affect the operations and success of the SMEs. Rueda-Manzanares, Aragón-Correa, and Sharma, (2008) argued that external environment that is munificent provide numerous opportunities to access and use resources such as government business support, entrepreneurial network, access to financial services, tax relief and holidays, affordable cost of borrowing, availability of new technology, provision of necessary infrastructure, access to market and many other benefits.

The opposite of munificence is hostility (Chi, 2006; Chi et al., 2009). The environmental hostility has to do with the extent to which the external environment present risks and uncertainties to the SMEs. As a result, hostile environment encompasses several factors in the external environment that create challenges to the SMEs in achieving a better SMEs performance. These could be in the form of stiff and unfavourable competition, unfavourable business conditions, insufficient or hard to detect entrepreneurial opportunities and cumbersome government policies,

regulations and guidelines (Aminu, 2015; Chi et al., 2009; Chi, 2006; Gnyawali & Fogel, 1994).

In line with the discussion on the EE, Chi et al., (2009) and Venkatraman and Prescott (1990) maintain that owners/managers need to establish and maintain proper alignment between the dimensions of the EE and the firms' strategic orientations that would lead to the achievement of better SMEs performance. Therefore, EE in this study is defined as the degree to which the activities in the external environment of firms provide opportunities and resources, and be able to determine SMEs achievement, success and overall performance (Aminu, 2015). Therefore, it is hypothesised that:

H04: there is no significant effect of environmental hostility on SMEs performance

2.5 SMEs Performance

SMEs performance is defined as “the abilities of the SMEs to harness, integrate and utilize various internal and external resources with timely and right reconfiguration to achieve targeted set of objectives and performance capable of providing employment opportunities, growth of GDP, export and to uplift the standard of living of the society” (Pulka, 2019). Therefore, the external business environment is a vital component that affects the SMEs operations, activities and overall performance (Asad, Chethiyar, & Ali, 2020; Riyadi & Munizu, 2022).

Similarly, the success or failure of SMEs largely is contingent upon the ability of owners/managers to achieve fit interaction with the external business environment (Asad, Chethiyar & Ali, 2020; Kuznetsova, 2015). Particularly, the ability of the SMEs to embrace changes in information technology and production technology from the external business environment was found to drive innovation and performance (Nguyen et al., 2018; Pérez et al., 2019). Similarly, due to the fast changing and uncertain business environment, SMEs need to scan and fit the environmental changes and transform it into policies, strategies, and business activities that could make them successful in the market (David & David, 2016).

2.6 Conceptual Framework and Underpinning Theory

This research utilizes contingency theory to underpin the study. This is one of the theories been frequently used in the management and entrepreneurship research to proffer solution to several problems facing firms. Therefore, contingency theory puts forward that the strategies to be used by the SMEs to solve its problems and challenges can best determine by its situation. Meanwhile, Schuler (2000) threw light to explain the contingency theory; there are multiple strategic choices that SMEs can pursue. The concept of "fit" is explained in many ways, such as consistent with, contingent upon and aligning has crucial importance in contingency theory

(Venkatraman, 1989). In a similar vein, Lawrence and Lorsch, (1967) identified that the concept of "fit" or "match" is the basic premise of the contingency theory. Therefore, Drazin and Van de Ven (1985) and Selto, Renner, and Young (1995) emphasized the necessity of fit between organizational strategies and some of the organizational resources as the essential prerequisite for firm's performance.

Furthermore, Naman and Slevin, (1993) argued that SMEs performance could be improved if there is an efficient and effective alignment of the vital resources of the SMEs. Naman and Slevin, (1993) indicated that the performance of SMEs could be enhanced when essential strategic resources are appropriately aligned. Similarly, Lawrence

and Lorsch, (1967) stressed that the basic principle of contingency theory suggests that there should be paramount "fit" among vital strategic resources of the SMEs to achieve better performance. Hence, the environmental characteristics are been regarded as contingent factors as explained in the contingency theory. As a result, this study argues that a good fit between environmental complexity, dynamism, diversity and hostility would drastically enhance the SMEs performance. Therefore, the variables of the study consist of environmental complexity, dynamism, diversity hostility as independent variables while SMEs' performance serves as the dependent variables. Figure 1 depicts the conceptual framework of the study.

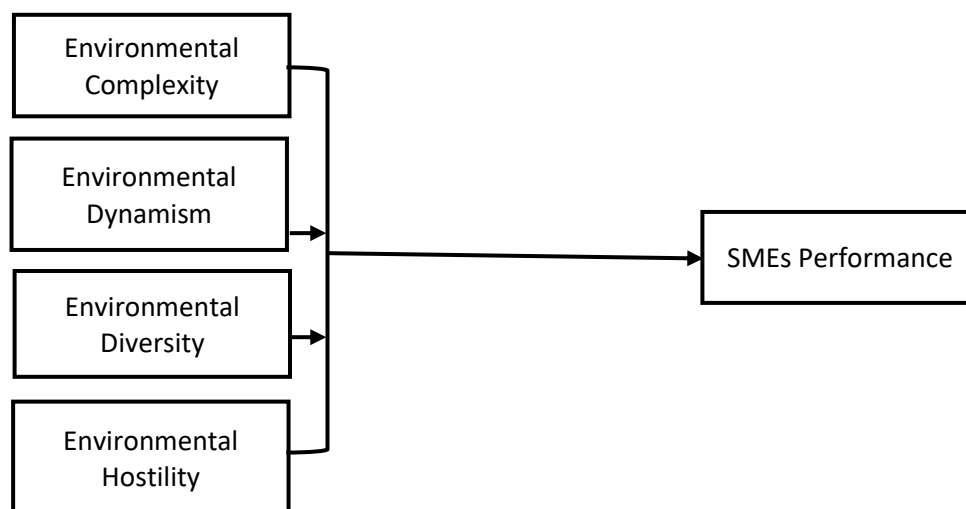


Figure 1: Conceptual Framework of the Study

3. Methods

3.1 Sample and Data Collection

The population of the study is made up of 1, 626 SMEs. The study used a survey method, where data for the study were collected through a self-administered questionnaires

from the owners/managers of the SMEs operating in northeastern Nigeria,. Multistage sampling techniques was employed to arrive at the sample of the study. The study area was divided into six clusters, then from the six clusters, proportional to size random sampling

technique was employed to get subsample from each of the six clusters. Thereafter, simple random sampling technique was used in identifying the SMEs that participated in the survey. To determine the sample of the population, Krejcie and Morgan (1970) sample determination table was used. Then, 50% was added to minimise nonresponse bias (Bartlett, Kotrlik & Higgins, 2001; Salkind, 1997). Out of the 470 questionnaires distributed, 321 were successfully retrieved. Out of the 321 questionnaires, 13 were found to be invalid because substantial parts of the questionnaire were left blank or double checked. In the end, 308 questionnaires were valid and considered for analysis. With this number, the study achieved a response rate of 65.5%.

3.2 Measurements

The instruments that were used in measuring the variables in the study were adapted from the previous studies. The measurement of SMEs performance was adapted from Santos and Brito, (2012). The measurement of the external business environment is adopted from Chi et al., (2009) and Chi (2006). All the variables were measured on 5 points Likert scale ranging from strongly disagree to strongly agree. Furthermore, SPSS 24 was used in the preliminary analysis and to examine the relationship between the variables of the study, PLS 3.0 was used in the evaluation of the measurement and structural models.

4. Results and Analysis

The results are divided into two section, preliminary results and main results.

4.1 Preliminary Results

To assess the common method variance (CMV), variables were subjected to Harman's single factor test (Podsakoff & Organ, 1986). It is discovered that the first single factor explained 21.76 percent of the total variance. Thus, it is less than the maximum of 50 percent as expounded by some research (Podsakoff, MacKenzie & Podsakoff, 2012; Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Therefore, this is an indication of the non-appearance of substantial bias in the data of the study.

After the assessment of CMV, assessment and management of outliers was performed. The data (308 cases) were subjected to univariate outlier analysis by employing Z scores standardised values with a cut off of ± 3.29 ($p < 0.001$) as suggested (Tabachnick & Fidell, 2007). The results of the univariate analysis showed that 34 cases exceeded the thresholds of ± 3.29 and as a result, they were considered as univariate outliers in the data. Hence, the 34 cases were deleted from the data, and 274 cases were considered for further analysis.

Similarly, non-response bias was tested using the significant difference between the early and lately returned questionnaires by using t-tests (Chiang, Kocabasoglu-Hillmer, & Suresh, 2012; Armstrong & Overton, 1977). The results indicated that the values of the

equal variance significance for the variables are higher than 0.05 significance level of Levene's test for equality of variances (Coakes, 2013; Pallant, 2010). Thus, the results indicated that the equal variance has no statistical differences between the early and late respondents. Additionally, the response rate exceeded the threshold of 50%, as suggested by some researchers (Lindner, James & Wingenbach, 2002).

To check for the normality of the data, the multivariate normality was employed to check the data distribution by employing kurtosis and skewness measure of the distribution (Hair, Hult, Ringle, & Sarstedt, 2017; Fidell & Tabachnick, 2003). The results demonstrated that the Skewness and Kurtosis of the variables are within the accepted limits of less than 2 and 7 respectively (Curran, West, & Finch, 1996; West, Finch, & Curran, 1995). Thus, it showed that the data is normally distributed.

Multicollinearity was inspected by applying correlation matrix, tolerance and level of VIF for the independent variables. The correction results showed no multicollinearity among the variables, where all the coefficients are far below the threshold of 0.9 (Hair, Anderson, Babin, & Black, 2010; Pallant, 2010). Similarly, the tolerance level of 0.20 and higher, while VIF values of below 5 indicated the absence of multicollinearity (Hair et al., 2017; Sarstedt, Ringle, Smith, Reams, & Hair,

2014). The tolerance of all the independent variables are higher than 0.20, and the values of VIF are lower than 5 for all the variables. Therefore, this signifies the absence of multicollinearity.

4.2 Assessing the Measurement Model

Table 1 shows the results of the standardised loadings, Cronbach's alpha, composite reliability and average variance extracted. All the constructs have achieved the standardised loadings of 0.479 to 0.8834 after deleting some items to achieve the standardised loading through PLS procedure (Sarstedt et al., 2014; Duarte & Raposo, 2010).

Similarly, the variables of the study obtained Cronbach's alpha of 0.677 to 0.828. This is also within the acceptable boundary except for environmental diversity that falls below 0.7. Furthermore, the composite reliability of all the constructs has gained acceptable levels, where the values range from 0.754 to 0.873 (Hair, Ringle & Sarstedt, 2011; Bagozzi & Yi, 1988). The average variance extracted also have achieved satisfactory levels, where all the constructs have values of at least 0.5 and above (Bagozzi & Yi, 1988; Hair et al., 2011).

Table 1: Loadings, Composite Reliability and Average Value Extracted Values

Items	Std Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
COM1	0.479	0.759	0.786	0.568
COM2	0.750			
COM3	0.955			
DIV1	0.610	0.677	0.754	0.521
DIV2	0.951			
DIV3	0.535			
DYN1	0.834	0.780	0.849	0.586
DYN2	0.716			
DYN3	0.673			
DYN4	0.826			
HOS2	0.693	0.776	0.840	0.514
HOS3	0.774			
HOS4	0.734			
HOS5	0.589			
HOS6	0.777			
SP1	0.610	0.828	0.873	0.500
SP2	0.557			
SP3	0.795			
SP5	0.803			
SP6	0.720			
SP7	0.795			
SP8	0.626			

4.3 Discriminant Validity

Table 2 shows the results of the discriminant validity based on Fornell Lacker criterion.

Therefore, it is clear that all the square root of the AVE of all the constructs are greater than

the correlations among latent the constructs.

Consequently, all the constructs have achieved acceptable levels of discriminant validity (Fornell & Larcker, 1981).

Table 2: Latent Variables Correlations and Square Roots of Average Variance Extracted

Variables	Env. Complexity	Env. Diversity	Env. Dynamism	Env. Hostility	SMEs Performance
Env. Complexity	0.754				
Env. Diversity	0.710	0.722			
Env. Dynamism	0.670	0.670	0.765		
Env. Hostility	0.687	0.692	0.703	0.717	
SMEs Performance	0.348	0.256	0.368	0.316	0.707

Heterotrait-Monotrait Ratio (HTMT)

HTMT criterion also evaluates the discriminant validity (Henseler, Ringle, & Sarstedt, 2015). The HTMT is the ratio of the

between-trait correlations to the within-trait correlations. The threshold for HTMT is 0.90. This means if the value of HTMT is 0.90 and below, there is discriminant validity. Hence,

based on results presented in Table 3, all the values of the HTMT are below the threshold

of 0.90. Thus, this signifies that validity exist in the study.

Table 3: Heterotrait-Monotrait Ratio (HTMT)

Variables	Env. Complexity	Env. Diversity	Env. Dynamism	Env. Hostility
Environmental Diversity	8.070			
Environmental Dynamism	0.811	0.805		
Environmental Hostility	0.707	0.952	7.003	
Environmental Complexity	0.298	0.239	0.411	0.349

4.4 Testing of Hypotheses

Table 4 provides the results of the relationship between environmental complexity, environmental dynamism, environmental diversity, environmental hostility and SMEs performance. First, environmental complexity has significant relationship with SMEs performance ($\beta = 0.227$, $t = 2.750$ and $p = 0.006$) hence, hypothesis one is rejected. Second, environment dynamism has significant

relationship with financial performance ($\beta = 0.267$, $t = 2.400$ and $p = 0.016$) thereby making hypothesis one to rejected. Third, environmental diversity is insignificantly related to financial performance ($\beta = -0.081$, $t = 1.186$ and $p = 0.236$). This makes hypothesis one accepted. Lastly, environmental hostility is insignificantly related to financial performance ($\beta = 0.022$, $t = 0.042$ and $p = 0.966$). Therefore, the hypothesis one is also accepted.

Table 4: The Assessing Significance of the Structural Model

Hypotheses	Beta	Std. Dev.	T Stat.	P Values	Decision
Environmental Complexity => SMEs Performance	0.227	0.088	2.750	0.006	Rejected
Environmental Dynamism => SMEs Performance	0.267	0.115	2.400	0.016	Rejected
Environmental Diversity => SMEs Performance	-0.081	0.093	1.186	0.236	Accepted
Environmental Hostility => SMEs Performance	0.022	0.114	0.042	0.966	Accepted

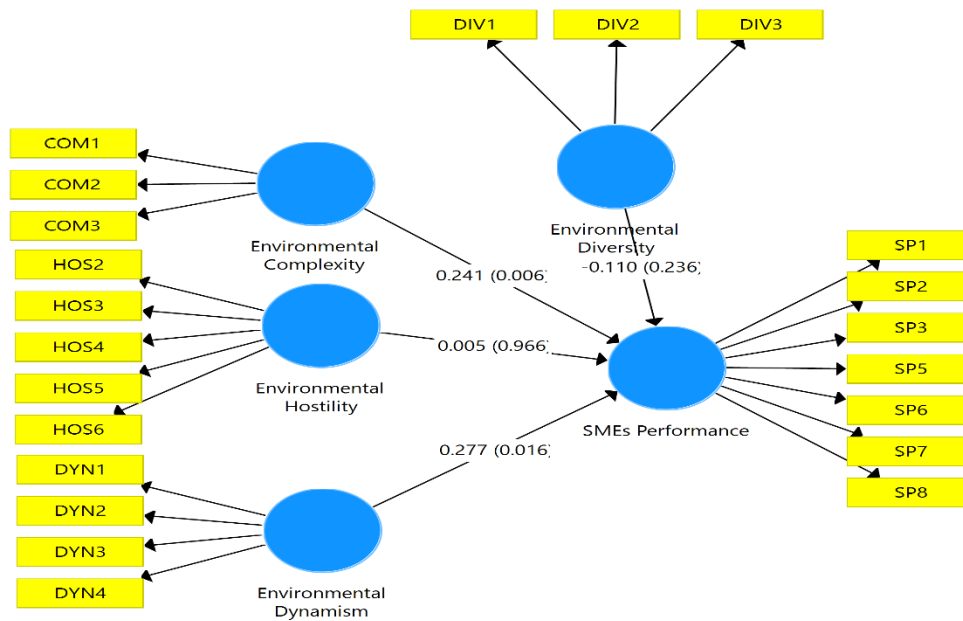


Figure 2: Bootstrap relationship between the independent and dependent variables.

Table 5 illustrates the coefficient of the determination of the whole (R^2). The R^2 explains the change in SMEs performance as a result of the effects of environmental complexity, environmental dynamism, environmental diversity and environmental hostility. The results indicated that all the

independent variables explain 14% changes in SMEs performance. Hence, going by the suggestions made by Cohen (1998), R^2 values of 0.26 or higher is substantial, 0.13 is considered moderate, and 0.02 is weak. So, the variance or R^2 of this study are considered as having a moderate effect.

Table 5: Assessment of Coefficient of Determination (R^2)

Endogenous Variable	R Square	R Square Adjusted
SMEs Performance	0.159	0.146

Field survey, 2019

Table 6 depicts the results of the effect sizes of all the exogenous variables used in the study. Hair, Hult, Ringle, and Sarstedt, (2017) and Chin (1998) maintained that the effect size explains the relative effects of a specific or individual exogenous variable (s) on the endogenous variable (s) in a model employing the changes in the R^2 . Therefore, it is argued that the accepted level of the effect of size is categorised into three; 0.02 is a small effect,

0.15 is the moderate effect, and 0.35 is a substantial effect (Hair et al., 2017; Cohen, 1988). Nonetheless, even the tiniest strength of effect size ought to be considered as important, as it has the power exert influence on the endogenous variables (Chin, Marcolin, & Newsted, 2003). Therefore, the effect size of the exogenous variables has a different effect on the two endogenous variables ranging from small to no effect.

Table 6: Assessment of Effect Size (f^2)

Variables	Effect Size	Decision
Environmental Complexity	0.026	Small
Environmental Diversity	0.005	Small
Environmental Dynamism	0.029	Small
Environmental Hostility	0.000	Small

Table 7 provides the results of the predictive relevance of the model (Q^2). In evaluating the predictive relevance, the blindfolding technique is used (Hair et al., 2017; Hair, Ringle & Sarstedt, 2013; Henseler, Ringle & Sinkovics, 2009; Geisser, 1974; Stone, 1974).

Therefore, a research model with a Q^2 value beyond zero (0) is regarded as having predictive relevance (Henseler et al., 2009). The Q^2 of SMEs performance 0.069. Thus, it is concluded that the model has path predictive relevance.

Table 7: Assessment of the Predictive Relevance (Q^2)

Endogenous Variables	SSO	SSE	$Q^2 (=1-SSE/SSO)$
SMEs Performance	1,918.000	1,784.871	0.069

4.5 Importance-Performance Matrix Analysis

The importance/performance matrix analysis (IPMA) is a use to identify the areas of improvement that owners/managers need to address (García-Fernández et al., 2020). The mean values of the scores are indicated by the construct's performance, with 0 representing the lowest level of performance, while, 100

representing the highest performance. Table 6 presented the Importance-Performance Matrix Analysis. Environmental dynamism has the highest percentage of 58%, followed by Environmental hostility with 35%, then Environmental complexity with 24% and Environmental diversity with only 11%. Table 8 presents the Importance-Performance Matrix Analysis

Table 8: Importance-Performance Matrix Analysis

Variables	IPMA
Environmental Complexity	0.241
Environmental Diversity	0.110
Environmental Dynamism	0.577
Environmental Hostility	0.350

4.6 Model Fit

Table 9 presents the model fit measure. The model fit is the the root mean square discrepancy between the observed correlations and the model-implied correlations (Sarstedt, Ringle & Hair, 2017). The rule of

thumb is that the SRMR value needs to be below 0.10 or 0.08 and NFI of less that 0.90 to indicate good fit in a research model (Hu & Bentler, 1999). There the results butree that SRMR value is below 0.10 and the NFI is below 0.90, these indicated that the research model has achived fit

Table 9: Model Fit

	Saturated Model	Estimated Model
SRMR	0.915	0.915
d_ULS	3.340	3.340
d_G	0.900	0.900
Chi-Square	1,464.241	1,464.241
NFI	0.571	0.571

5. Discussion

As discussed earlier, SMEs play a vital role in providing employment, industrialization, economic growth and development. Therefore, the study examined the effects of environmental complexity, dynamism and diversity hostility SMEs performance. The study found that environmental complexity and dynamism have significant effects on SMES performance. These findings agreed with previous studies (Hambrick, 1983; Kim & Lim, 1988; Miller, 1988). Boyd and Fulk, (1996) which found that firms operating in a complex and dynamic environment are usually facing problems and challenges. Therefore, the ability of the SMEs to survive and succeed is to be able to initiate and implement sound strategies, align these strategies with the happenings in the external business environment by regularly scanning, monitoring and fitting the SMEs strategies with the external environment (Boyd & Fulk, 1996; Drazin & Van de Ven, 1985).

Unexpectedly, the study found insignificant relationship between environmental diversity, hostility and SMEs performance. This means that the more diverse and hostile the external environment is, the greater the constraints

and challenges for the SMEs to maintain competitive advantage and to achieve better performance (Boyd & Fulk, 1996; Nandakumar, Ghobadian & O'Regan, 2010).

6. The Implication of the Study

The study has implications for policymakers in tackling and providing solutions to numerous problems facing SMEs. The study provides the understanding and empirical evidence that external environmental characteristics do influence the performance of the SMEs. Therefore, the findings from this study pave an avenue to the policymakers to initiate and implicate policies, programmes and other activities to curb the problems facing the SMEs. So the SMEs can contribute more to employment, exporting earning, reducing unemployment, curbing the rate of poverty in the societies and reducing unequal distribution of wealth and income. Notably, the policymakers should provide favourable business environment for the SMEs.

In the same vein, the study points out the vital role played by different external environmental characteristics to the SMEs. Therefore, the SMEs should regularly scan, evaluate, analyse happening in the external

environment to keep on alert. Moreover, the SMEs should regularly align their strategies and resources with the external environment to achieve a strategic fit that can guarantee their success and better performance as expounded in the contingency theory.

7. Conclusion and Suggestion for Future Studies

In conclusion, therefore, the study examined the relationship between external environmental characteristics and SMEs' performance.

Thus, the study contributed to the body of literature in this field by providing empirical and scientific evidence on the relationship between environmental complexity, dynamism, diversity, complexity, and SMEs performance.

Therefore, this study suggests that future research should consider incorporating more variables. Future studies should also consider adding moderating and or mediating variables into the research model. Similarly, future research should consider different research context, setting and population.

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