

THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Environmental Factors and Sustainability of Small and Medium Businesses in Lagos Metropolitan Area, Lagos State, Nigeria

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Abstract:

The study evaluated the effects of environmental factors on the sustainability of selected SMEs in Lagos metropolitan area.

The research employed quantitative methodology using survey questionnaire. A total of 103 questionnaire copies were returned in analysable format from the SMEs' owners/managers and analysed using percentages, correlational analysis, ANOVA and Multiple Regression.

Findings revealed significant negative correlation between the environmental factors and Lagos SMEs' sustainability at $r = 0.336, P < .05$. In more detailed terms, nine major factors, all with $p < .05$, individually impacted the SMEs sustainability in the following descending order: Inadequate Power Supply, Inadequate Infrastructure, Inconsistent Government Policies, Customer Dissatisfaction, Lack of Employee Commitment, Managerial Inefficiency, Harsh operating environment and Regulations, Firm's Location, and Inappropriate Technology.

The study concluded that environmental factors, both organisational (internal factors) and government related (external factors) impact the sustainability and survival of SMEs in the Lagos Metropolitan area of Lagos State, Nigeria.

Keywords: Environmental factors, sustainability, SMEs, Lagos State, Nigeria

1. Introduction

Bansal and DesJardine(2014, p. 71) define business sustainability as '*...the ability of firms to respond to their short-term financial needs without compromising their (or others') ability to meet their future needs. Thus, time is central to the notion of sustainability*'. In explaining the concept, the duo authors opine that most managers would like their firm's profits to be at least as good as the past, and that it continues to grow. In addition, just as most people want to live as well as their parents, so do they want their children to enjoy similar opportunities. In essence, Bansal and DesJardine(2014) are of the opinion that time is central to the concept of sustainability.

Incentives abound in extant literature for Small and Medium-sized Enterprises (SMEs) to optimise their sustainability for the businesses' long term existence; for instance, Moore and Manring (2009) contend that, among other incentives, SMEs may: become valuable investment targets for larger firms, be able to create a highly competitive network of sustainable SMEs in existing market spaces where larger firms may be unsuccessful, and become highly efficient suppliers within the global supply chains. Given these benefits among others, it is expected that businesses would attempt to focus on areas that are deemed core to their continued existence and performance. Adopting the definition of Small and Medium Enterprises Development Agency of Nigeria (SMEDAN, 2015), SMEs in this paper are defined based on the number of people they employ. A small business is one that employs between 10 and 49 people, while that which employs between 50 and 199 is regarded as medium sized. SMEDAN is the agency of the Nigerian government with the key mandate of developing the SME sector in Nigeria.

A number of factors have been identified in extant literature as crucial to the sustenance of firms, irrespective of whether the SMEs are in developed, emerging or developing nations. For example, in Yu and Bell's (2007) study of Chinese manufacturing and non-manufacturing SMEs, the authors report that factors such as corporate image, governmental legislation, owner/managers' awareness, perception, education, financial issues, external support, communication and cooperation serve either as motivators or hindrances for the businesses' sustainability practices. Yu and Bell (2007) suggest that while the businesses' corporate image and governmental legislation motivate the businesses to pursue sustainability agenda, other factors like lack of owner/managers' awareness, perception and education, coupled with deficient financial resources, and ill-suited external support hinder the businesses. Furthermore, the authors conclude that improved owner/manager education, communication and cooperation are ways to better Chinese SMEs' sustainability.

In the research on construction SMEs in South East Queensland, Australia by Thorpe, Ryan and Charles (2008), they observe that globalisation, change in demography, environmental sustainability, climate change, technologies, ICT, governance and regulation impact the organisations they studied. Again, as reflected in the study by Yu and Bell (2007) discussed in the last paragraph, the research by the trio of Thorpe, Ryan and Charles (2008) have some common factors such as governance, regulation and legislation. In a similar study of UK SMEs in selected Local Government areas of England, UK, Walker and Preuss (2008) report that the dictate and pressure from customers to manufacturers on the need

to avoid the usage of harmful products in the manufacturing process and discontinued production process that are deemed hazardous to the environment of operations are some of the environmental factors affecting such businesses. Also, a framework for sustainable maintenance of the SMEs by Kibira, Jain and McLean (2009) listed the following as part of key environmental elements, especially within the manufacturing sector: energy, labour, consumers, markets, transportation and regulations. These elements, among others, are found to influence manufacturing firms' capacity to remain sustained businesses for the foreseeable future. Using Life Cycle Assessment (LCA) of SMEs' products and services, Ortiz, Castells and Sonnenman (2009) contend that a firm that caters for its own sustainability can even create and enhance acceptable physical environment and improved quality of life, not only for its employees, but also other individuals in the vicinity of such business's environment. Such is the potentially positive ripple effects that organisations' sustainable actions could bring if properly managed. In the study on SMEs growth in Vietnam carried out by Nguyen, Alam, Perry and Prajogo, the authors opine that '...Basic business environmental factors are not adequate for supporting SMEs' (2009, p. 66). Nguyen and colleagues' research find poor technology development level, insufficient capital, unskilled labour and inadequate support services for the firms and other factors as significant issues thwarting a sustained SME sector in Vietnam.

Results from Hitchens, Thankappan, Trainor, Clausen and De Marchi's (2005) study of Europe's [i.e. UK, Germany and Italy] Small Businesses (SB) identify two broad problems that can impact the management of those businesses: Technological problems and organisational issues. The technological issues include relevant skills, lack of technical expertise, outdated technology and lack of investment, while organisational issues include Managing Director's [MD's] commitment, lack of managerial expertise, accountability, environment and resistance to change. One key observation here is that, irrespective of the side of the universe businesses exist, the challenges they face are real and appear similar. Therefore, the factors that impact SMEs' sustainability must constantly be an area of concern for all who have one stake or the other in such businesses.

In a review of existing literature on environmentally sustainable businesses in New Zealand, Seidel, Seidel, Tedford, Cross, and Wait (2008) developed the 'Systems Model' to identify what they tagged the drivers of sustainable SMEs as follows: *environmental issues, owner-managers' influence, and market and legislation drivers*. In a similar work by Klewitz and Hansen (2014), a systematic review of extant literature finds that many SMEs appear to engage in *Sustainability-Oriented Innovations (SOIs)*. The authors further propose that interactions with external factors such as customers, authorities and research institutes could potentially impact the SMEs positively for the nation's sustainable development. The research by Temtime and Pansiri (2004) sampled 203 SMEs in Botswana; the result shows that human resource development (HRD), organisational development (OD), managerial background, managerial leadership and competitive strategy are some of the fundamentals for the performance, hence, the sustenance of SMEs in the country. In addition to those factors, Temtime and colleague also identified a connection between the factors listed and some firm-specific demographic variables including ownership status, owners' experience and the firm's period of operation. Using the Resource-Based View to explain how SMEs' performance can be improved, Terziovski (2010) stresses the importance of innovation practice in Australian firms; the author posits that adopting innovative culture, strategy, and processes with formal structures could be a better way forward.

Fatoki (2014) studied existing literature on New SMEs in South Africa and concluded that the factors contributing to SMEs failures are grouped into two: *internal and external*. Internal factors include *lack of managerial experience, non-existing functional skills, poor employee training and development, and inappropriate attitudes towards customers*; the external factors are, but not limited, to *poor logistics, intolerable distribution cost, unhealthy competition, increasingly rising costs of doing business, lack of finance and crime*. It can be argued that with such localised encounters, African business are particularly prone to a high-risk business environment that could challenge their longer-term growth and sustainability. With regards to SMEs in the Sub-Saharan Africa, Painter-Morland and Dobie (2009) view ethics as an imperative for the businesses' sustainability. The authors argue that while positive ethical practices like relationships between the SMEs themselves, and between stakeholders (suppliers, employees and local communities) that create enabling environment should be sustained, the negative ethical conducts such as corruption (e.g. in governments and within local communities) and theft (within the firms) are contaminating and debilitating for the businesses, and SMEs should be rid of them. With corruption and theft, for instance, that is particularly commonplace the world over, but especially in the developing world where impunity is rife and sometimes self-inflicting from within the firms themselves, businesses sustainability may continue to be a mirage.

In Nigeria, studies have shown that Nigerian businesses face enormous challenges (Ihua and Siyanbola, 2012; Oyelola, Ajiboshin, Raimi, Raheem, and Igwe, 2013) that are sometimes debilitating to such businesses. Oyelola et al. contend that Nigeria is devoid of appropriate operating environment for businesses. Issues listed by the authors as more problematic for the SMEs include '...frequent power outages, bad roads, multiple taxes, extortion of money from SMEs by government officials, lack of genuine support service for SMEs, and expensive transportation/telecommunications costs...' (2013, p.198). In similar manner, Buowari (2015) listed factors required for small businesses survival in Nigeria as stable power supply, strategizing effectively, flexible finance capital management, developing human capital, and effective market positioning plus sales. All of these challenges point to the fact that just as businesses in any corner of the world are continuously challenged, businesses in the developing countries such as Nigeria also have their own unique issues that need continued attention given the harsher environment of operations that have peculiarities to the country's context.

1.1. Problem Statement

Small and Medium-sized Enterprises are known to dominate the majority of businesses in most nations, thus making the sector significant to countries' growth and development. Unfortunately, studies on such firms with a bias towards sustainability are uncommon (Collins, Dickie and Weber, 2009). In these three authors' report on SMEs in New

Zealand and Australia, they contend that ‘...the New Zealand Government has committed itself to achieving a sustainable economy, without undertaking the research necessary to achieve that fundamental shift or to measure its success’(Collins et al., 2009, p. 53). This apparent gap between policy and activities (including research) necessary to implement them will be few and far between, causing potentially ill-informed policy objectives and ineffective outcomes. In addition, Collins, Dickie and Weber (2009) also indicated that even in Australia, small businesses lack the stimulus to engage in sustainable business practices due to inadequate government initiatives, directives and legislation. Similarly, it is common knowledge that Nigerian businesses operate in very harsh environment with numerous challenges (Buowari, 2015; Oyelola et al., 2013). Moreover, agencies such as the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) is mandated to help the SME sector in Nigeria to grow, and policies exist to assist SMEDAN. However, based on Buowari’s (2015) and Oyelade et al.’s (2013) reports, one can argue that just as it is reported for New Zealand, gap always exist between policies and activities that could make such policies come to fruition. Many of the problems may occur at the implementation stage of these policies. In view of these challenges, this paper assesses the environmental factors relevant to the growth, development and sustainability of SMEs that are central to the development of Lagos State’s economy in Nigeria. Lagos State, a major commercial hub in Nigeria, is reputed to have the largest concentration of SMEs in the country (Obokoh, 2008) and account for up to 70% of the country’s manufacturing output (Braithmoh and Onishi, 2007; Adebani, 2004). Hence, the choice of Lagos metropolis for this SME related study is appropriate.

1.2. Objectives of the Study

The central goal of this paper was to evaluate the key environmental factors that could influence the growth and sustainability of SMEs in Lagos state metropolis in Nigeria. The main goal was sub-divided into two: appraise the nexus between environmental factors and the growth of SMEs in Lagos state, and assess how the factors existing in Lagos business environment affect the sampled SMEs sustainability.

In this paper, it is argued that when a business is able to grow and *survive*, it is capable of being sustained in the foreseeable future without jeopardising its future existence. As earlier indicated, Samujh (2011) view businesses’ survival as a stepping stone to sustaining such.

1.3. Study Hypothesis

The hypothesis developed for the study reads thus:

H₁: There is significant relationship between environmental factors and the sustainability of small and medium-sized SMEs in Lagos state.

2. Conceptual Framework

The framework for this paper was conceptualised from the review of existing literature based on issues some past researchers raised regarding SMEs, and other related issues. So, from the literature reviewed, the following framework (figure 1) and subsequent table (table 1) were developed. Table 1 shows how the explanatory variables were operationalised in the questionnaire administered for data collection; the same table indicate the sources of each construct from existing literature.

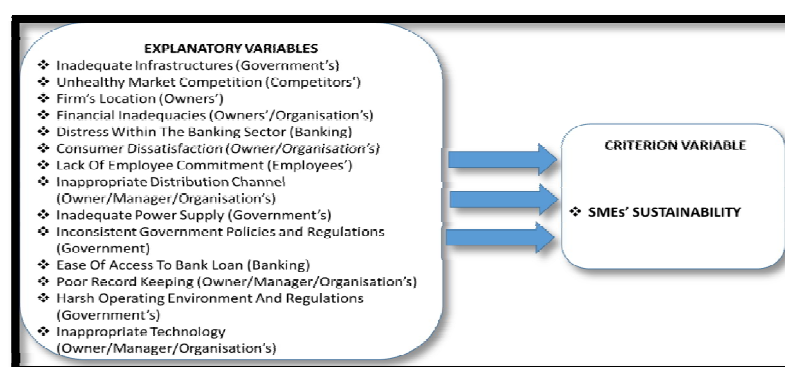


Figure 1: Framework for the Study

Source: Developed by the Researcher Based on Studies by Authors such as Yu & Bell (2007), Thorpe, Ryan & Charles (2008), Kibira, Jain & Mclean (2009), Hitchens et al. (2005), Seidel et al. (2008), Fatoki (2014), and Oyelola et al.(2013)

S/N	Factors	Authors	Country	Year	Operationalisation of Variables
1	Governmental legislation, Financial issues	Yu & Bell	China	2007	Harshness of government legislation
2	Environmental sustainability, Technology, Governance, Regulation	Thorpe, Ryan & Charles	Australia	2008	Governance and regulatory environment
3	Energy, Labour, Markets, Regulations, Transportation	Kibira, Jain & Mclean	Unspecified (Framework)	2009	Regulations specific to labour market
4	Technological Problems, Organisational Issues	Hitchens, Thankappan, Trainor, Clausen & De Marchi	UK, Germany, Italy	2005	Organisational issues and appropriateness of technology
5	Environmental Issues, Legislation Drivers, Market, Owner/managers' Influence	Seidel, Seidel, Tedford, Cross & Wait	New Zealand	2008	Owner-managers related issues
6	Managerial Experience, Functional Skills, Employee Training & Development, Attitude Towards Customers, Distribution Costs, Competition, Cost of Doing Business, Finance, Crime	Fatoki	South Africa	2014	HRM issues (e.g. managerial experience)
7	Frequent Power Outages, Bad Roads, Multiple Taxes, Money Extortion by Government Officials, Lack of Genuine Support for SMEs, Expensive Transportation Costs, Expensive Communication Costs	Oyelola, Ajiboshin, Raimi, Raheem & Igwe	Nigeria	2013	Adequacy of infrastructure

Table 1: Operationalisation of the Constructs Adopted in Measuring the Explanatory Variables Included in the Framework and Their Sources From Literature
Source: Generated From Literature by the Researcher

Notes:

- The Cronbach Alpha Coefficient for all items in the questionnaire is .740, and the items are ranked in the questionnaire;
- The operationalization of variables column indicates the areas questions were asked in the questionnaire about the constructs included in the framework for the research.

3. Methodology

The study employed quantitative method using survey questionnaire. Being a preliminary part of a larger study of SMEs in Southwestern Nigeria, a sample of 178 questionnaires were distributed to owner-managers of manufacturing and service SMEs in Lagos irrespective of whether the firms were registered with any government organisation or not; with this criterion of not bothering with evidence of business registration, the population was unknown. But, out of the 178 sent out, only 103 were retrieved in the form that could go for analysis; that makes approximately 58% response rate. Essentially, convenient sampling method was adopted to collect the data as specific areas of Lagos were targeted with a combination of both manufacturing and services businesses as focus. However, it was predetermined that any area chosen must necessarily have a cluster of manufacturing businesses; this is because such firms could sometimes be more difficult to access. For the manufacturing businesses, those categorised as belonging to food and beverages, textile, and chemicals dominated the sample while services businesses were more generic. On the whole, the manufacturing sector make up 37% of the sample while services make up the remaining 63%; as for the size of the firms, about two thirds (59%) of the businesses were small while the remaining 41% were medium sized.

The data collected was quantitatively analysed using both descriptive statistics that include percentages and correlation, and inferential statistics, including ANOVA and Multiple Regression.

4. Results and Discussion

The results in this section are discussed in turn starting with the reliability statistics, followed by correlational analysis, hypothesis testing, and the findings on the effects of environmental factors on the sustainability of the SMEs.

4.1. Reliability Statistics for the Research Items

Prior to the major analysis, the items in the questionnaire were tested to know the internal consistency of all the items that would be loaded into the model with the aid of Cronbach Alpha. The coefficient for all the items combined was **.740**, a figure that is deemed adequate given that acceptable figure for Cronbach Alpha is between **.7** and **.95** (George and Mallery, 2003). In essence, the research instrument (questionnaire) is internally consistent and reliable for future related studies.

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.740	.740	34

Table 2: Reliability Statistics for the Quantified Questionnaire Items

Source: SPSS 21 Output File

4.2. Correlation Analysis of the Link between Environmental Factors and SMEs' Sustainability

The connection between the two variables, environmental factors and Lagos SMEs sustainability is captured in the results of the test of the originally postulated hypothesis for the study. This is explained in the next sub-section.

4.3. Testing of the Research Hypothesis

As a form of recap, the formulated hypothesis for this study is:

H₁: There is significant relationship between environmental factors and the sustainability of small and medium-sized firms in Lagos state.

4.5. Results of the Tested Hypothesis

The graph in figure 2 sloping downwards from left to right reveals a significant negative relationship between environmental factors and the sustainability of SMEs in Lagos state Nigeria ($r = 0.336$, $P < .05$). This implies a strong link between elements that make up the SMEs business environment and the firms' ability to sustain themselves in the medium to longer term. Therefore, the original alternative hypothesis was accepted. By implication, as the effects of the negative environmental factors increase, there is a decrease in the potentials of the SMEs existence as going concerns for the foreseeable future. It is also important to note that in the model of analysis, the majority of the items were originally stated in the negative [(negative statements) – see table 3]; based on this, any increase in them either individually or collectively would likely cause a reduction in the potential for the businesses to survive.

In table 3, additional analysis of the transformed (quantified) items in the questionnaire was carried out to ensure suitability for further analysis. Firstly, it can be seen that most of the explanatory variables (Independent Variables) were moderately correlated with each other; they also showed some level of correlation to the criterion variable. Most of them were not too high and not extremely low. This is essential in that when explanatory items highly correlate with each other, some may really be redundant and create some form of noise during further analysis, causing distortion in the results or output of the model. On the flip side, if the explanatory items were not correlated with the criterion variable at all, it would have meant that there wouldn't be any point in carrying out further analysis on the effects of the Explanatory variables on the criterion. In this case, however, most of the variables included in the model appeared valuable except those that were removed before further analysis. In addition, table 3 also shows the tolerance levels for the explanatory variables; for the most part, none of the tolerance levels was lower than the minimum threshold of *0.1* either before or after the items were transformed. Tolerance level forms part of the test for multicollinearity (excessively high correlation) of variables that can cause problems in further analysis as previously explained in this paragraph. Tolerance indicates the percentage of the variance in the predictor which cannot be accounted for by the other predictors (UCLA, 2013) and each predictor must have a minimum value of *0.1* as previously indicated. As can be seen in table 3, the minimum value was *.345*, making all of the predictor variables fit for purpose in the model.

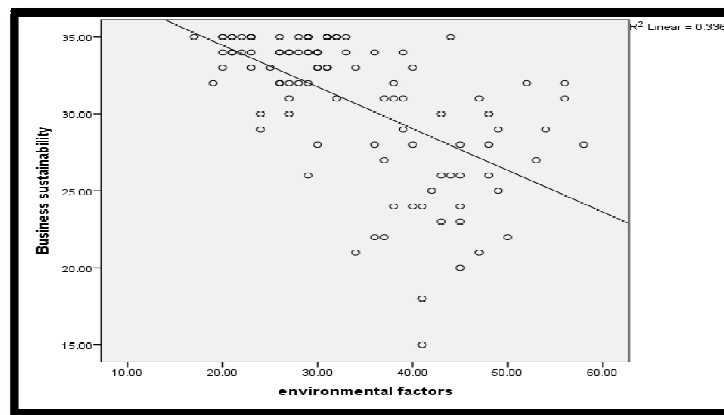


Figure 2: Correlation Analysis of the Relationship between Environmental Factors and Business Sustainability
Source: SPSS 21 Output File

	Correlations			Importance	Tolerance	
	Zero-Order	Partial	Part		After Transformation	Before Transformation
Managerial Inefficiency Quantification	.207	-.391	-.168	-.056	.547	.547
Marketing and Sales Issues Quantification	.077	-.030	-.012	-.001	.635	.635
Inadequate Infrastructures Quantification	.707	.492	.224	.320	.345	.345
Unhealthy Market Competition Quantification	.172	.050	.020	.004	.840	.840
Firm's Location Quantification	.697	.399	.172	.207	.470	.470
Financial Inadequacies Quantification	.392	.125	.050	.032	.537	.537
Distress Within the Banking Sector Quantification	.531	.070	.028	.026	.464	.464
Consumer Dissatisfaction Quantification	-.323	-.434	-.191	.094	.608	.608
Lack of Employee Commitment Quantification	.234	.350	.148	.052	.627	.627
Inappropriate Distribution Channel Quantification	.328	.056	.022	.011	.634	.634
Inadequate Power Supply Quantification	.490	.609	.304	.202	.769	.769
Inconsistent Government Policies And Regulations Quantification	.011	.418	.182	.003	.714	.714
Ease Of Access To Bank Loan Quantification	-.272	-.132	-.053	.019	.786	.786
Poor Record Keeping Quantification	-.310	.224	.091	-.044	.580	.580
Harsh Operating Environment And Regulations Quantification	-.213	-.261	-.107	.032	.729	.729
Inappropriate Technology Quantification	-.475	-.343	-.145	.102	.640	.640

Table 3: Correlations and Tolerance Levels for the Explanatory Variables
Dependent Variable: Organisation's business is sustainable in the long term Quantification
Source: SPSS 21 Output File

4.6. Effects of Environmental Factors on the Sustainability of SMEs in Lagos Metropolitan Area

At the initial stage of the analysis, the questionnaire items had to be converted from their original state to *quantifiable* items (See tables 4 and 6 for the concept 'Quantification' preceding each of the explanatory variables. Quantification of items become necessary before analysis when many of the questionnaire items are not in ratio or scale but are either interval or ranked etc.; this is particularly essential prior to inferential statistics to accommodate variables of different types and measurement (Funayama, Hines, Davis, & Allen, 2013; Meulman, Van der Kooij, Heiser, 2004).

Table 4 shows the summary of the model adopted to determine the level of connection between the explanatory variables and criterion variable, and whether or not the former affect the latter, and to what extent. As can be garnered from the table, the independent variables significantly explained 84.3% (R^2) of the changes that occur in the SMEs sampled in Lagos metropolitan area. Even when the results were adjusted for issues like sample size and error terms, the percentage of the businesses' sustainability explained was still as high as 81.4% (*Adjusted R²*). This indicates the significance of the combined efforts of the independent variables in understanding how the SMEs can be maintained as businesses that can survive in future. Based on the amount of variance in the SMEs sustainability explained by the explanatory variables combined, table 5 shows the overall significance of the model at $F = 28.936$; $p < 0.05$. The implication of this result is that when the model was compared to the Null model (that contain none of the explanatory variables), the resulting effects could be explained to be due to the inclusion of the explanatory variables rather than by chance effects. In essence, the inclusion of the explanatory variables had much to do with the changes that was obvious in the firms' sustainability as already indicated earlier in this paragraph.

	Multiple R	R Square	Adjusted R Square	Apparent Prediction Error
Standardized Data	.918	.843	.814	.157

Table 4: Model Summary for the Effects of Environmental Factors on the Sustainability of SMEs in Lagos

Dependent Variable: Organisation's business is sustainable in the long term Quantification

Predictors: Managerial Inefficiency Quantification Marketing and Sales Issues Quantification Inadequate Infrastructures Quantification Unhealthy Market Competition Quantification Firm's Location Quantification Financial Inadequacies Quantification Distress Within the Banking Sector Quantification Consumer Dissatisfaction Quantification Lack of Employee Commitment Quantification Inappropriate Distribution Channel Quantification Inadequate Power Supply Quantification Inconsistent Government Policies And Regulations Quantification Ease Of Access To Bank Loan Quantification Poor Record Keeping Quantification Harsh Operating Environment And Regulations Quantification Inappropriate Technology Quantification

Source: SPSS 21 Output File

In table 6, the disaggregated effects of each of the explanatory variables is presented unlike the combined effects in tables 4 and 5. At some point, the explanatory variable items were reduced to 16 that appeared most important from the original 34. Out of the 16, only *nine* were significant on their own once the effects were disaggregated; it means that those remaining were the most important in explaining how the businesses can be sustained ventures in the foreseeable future. In descending order of importance, and based mainly on the level of significance (and in some cases, their F statistics, where the p values for some items were the same), the key factors are as follows: *Inadequate Power Supply* at $F = 20.664$, $p < 0.05$; *Inadequate Infrastructure* at $F = 18.230$, $p < 0.05$; *Inconsistent Government Policies* at $F = 13.062$, $p < 0.05$; *Customer Dissatisfaction* at $F = 12.390$, $p < 0.05$; *Lack of Employee Commitment* at $F = 10.082$, $p < 0.05$; *Managerial Inefficiency* at $F = 10.041$, $p < 0.05$; *Harsh operating environment and Regulations* at $F = 5.172$, $p < 0.05$; *Firm's Location* at $F = 9.468$, $p < 0.05$; and *Inappropriate Technology* at $F = 8.633$, $p < 0.05$. The result means that *power supply, infrastructural facilities and inconsistent government policies* respectively were the top three that the owner/managers of the SMEs ranked as their worst problems, while *harsh operating environment and regulations, firm's location and Inappropriate technology* in that order were the least important of the nine significant variables in efforts to ensure any of the businesses was sustained; this is despite that the last listed three were more significant than many others in the model. In essence, when steps are to be taken to assist the businesses, the first three have to take priority over other issues. Also, other internal issues that are company related are significant in understanding the SMEs problems; for example, *customer dissatisfaction, lack of employee commitment and managerial inefficiency* are even more important in the model in terms of their impact on the businesses than the last three issues. These are areas that management of the SMEs should have control over, and can tackle on their own to solve some of their initial problems.

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	86.864	16	5.429	28.936	.000
Residual	16.136	86	.188		
Total	103.000	102			

Table 5: ANOVA in the Criterion Variable (Lagos SMEs' Sustainability) Based on the Combined Power of the Explanatory

Variables Source: Source: SPSS 21 Output File

Dependent Variable: Organisation's business is sustainable in the long term Quantification

	Standardized Coefficients		Df	F	Sig.
	Beta	Bootstrap (1000) Estimate of Std. Error			
Managerial Inefficiency Quantification	-.227	.072	1	10.041	.002
Marketing and Sales Issues Quantification	-.015	.078	1	.036	.849
Inadequate Infrastructures Quantification	.381	.089	1	18.230	.000
Unhealthy Market Competition Quantification	.022	.051	1	.181	.672
Firm's Location Quantification	.251	.082	1	9.468	.003
Financial Inadequacies Quantification	.068	.077	1	.783	.379
Distress Within the Banking Sector Quantification	.041	.081	1	.251	.617
Consumer Dissatisfaction Quantification	-.244	.069	1	12.390	.001
Lack of Employee Commitment Quantification	.187	.059	1	10.082	.002
Inappropriate Distribution Channel Quantification	.028	.056	1	.248	.620
Inadequate Power Supply Quantification	.347	.076	1	20.664	.000
Inconsistent Government Policies And Regulations Quantification	.215	.060	1	13.062	.001
Ease Of Access To Bank Loan Quantification	-.060	.067	1	.782	.379
Poor Record Keeping Quantification	.119	.069	1	2.992	.087
Harsh Operating Environment And Regulations Quantification	-.126	.055	1	5.172	.025
Inappropriate Technology Quantification	-.181	.061	1	8.633	.004
Dependent Variable: Organisation's business is sustainable in the long term Quantification					

Table 6: Coefficients for Each of the Explanatory Variables that Determine the Sustainability of Lagos SMEs

Predictors: Managerial Inefficiency Quantification Marketing and Sales Issues Quantification Inadequate Infrastructures Quantification Unhealthy Market Competition Quantification Firm's Location Quantification Financial Inadequacies Quantification Distress Within the Banking Sector Quantification Consumer Dissatisfaction Quantification Lack of Employee Commitment Quantification Inappropriate Distribution Channel Quantification Inadequate Power Supply Quantification Inconsistent Government Policies And Regulations Quantification Ease Of Access To Bank Loan Quantification Poor Record Keeping Quantification Harsh Operating Environment And Regulations Quantification Inappropriate

Source: SPSS 21 Output File

As part of secondary findings from the study, attempt was made to assess whether or not any nexus exist between the sampled businesses' sustainability and the respondents' demographic variables. Table 7 reveals that a strong relationship exist between the combined strength of owners/managers' demography, and making the businesses viable, resulting from the demographic items explaining changes in the firms' survival. When results were adjusted for errors, sample size and other issues, the demographic variables still explained 49.9% (*Adjusted R²*) of the changes in the firms' medium to long term viability. Table 8 indicates that owners and managers' demography has a lot to do with maintaining a strong business entity at $F = 7.766, p < 0.05$. In the final analysis, the combined effects of owners and managers' demographic variables were disaggregated into separate components, it became apparent that many of the items were important in explaining the businesses' sustenance. More specifically, table 9 shows that out of the 15 variables contained there, nine were significant to explaining how businesses perform. In descending order of significance and going by their p value levels and F statistics, the most significant three items were the zone (*ethnic group*) of the owner/manager at $F = 17.202, p < 0.05$, business size (*number of employees the firm employs*) at $F = 16.828, p < 0.05$, and owners/managers' work experience at $F = 15.145, p < 0.05$. Other important demographic items, again in descending order of importance, are: respondents' age, marital status, language spoken, gender, number of products/services the company provide and the firms' source of raw materials (as part of the organisations' supply chain).

The significance of these latter results is that, it is not just factors internal or external to the business environment that need attention by the owners, managers, employees and other stakeholders connected to the business to sustain such, personal issues are also very important. In essence, people's ethnic grouping, gender, age, marital status, language and work experience etc. are also key to succeeding in maintaining a business entity. Additionally, the size of a business, especially the number of people employed can also not be overlooked.

	Multiple R	R Square	Adjusted R Square	Apparent Prediction Error
Standardized Data	.757	.572	.499	.428

Table 7: Model Summary for the Link between SMEs Owner/Managers'

Demographic Variables and the Lagos Businesses Sustainability

Dependent Variable: Organisation's business is sustainable in the long term Quantification Predictors: Respondent's Gender Quantification Respondent's Marital Status Quantification Respondent's Age Quantification Educational Qualification Quantification Respondent's Years of Experience Quantification Respondent's Religion Quantification Language of the Respondent Quantification Ethnicity of the Respondent Quantification Zone of the Respondent Quantification Firm's Age Quantification Firm's line of business Quantification Total number of employees Quantification Firm's Total Asset Base Excluding Land and Buildings Quantification Products the Company Produce Quantification Company's Source of Raw Material for Production Quantification

Source: SPSS 21 Output File

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	58.964	15	3.931	7.766	.000
Residual	44.036	87	.506		
Total	103.000	102			

Table 8: ANOVA in the Criterion Variable (Lagos SMEs' Sustainability)

Based on the Combined Power of Owner/managers' Demographic Variables

Dependent Variable: Organisation's business is sustainable in the long term Quantification

Source: SPSS 21 Output File

	Standardized Coefficients		Df	F	Sig.
	Beta	Bootstrap (1000) Estimate of Std. Error			
Gender of the Respondent Quantification	.262	.089	1	8.585	.004
Marital Status of the Respondent Quantification	.465	.134	1	12.097	.001
Age of the Respondent Quantification	.410	.122	1	11.281	.001
Educational Qualification of the Respondent Quantification	.100	.079	1	1.611	.208
Years of Experience of the Respondent Quantification	.402	.103	1	15.145	.000
Religion of the Respondent Quantification	.123	.089	1	1.912	.170
Language of the Respondent Quantification	.281	.092	1	9.366	.003
Ethnicity of the Respondent Quantification	.023	.100	1	.052	.821
Zone of the Respondent Quantification	.363	.088	1	17.202	.000
Firm's age Quantification	.107	.089	1	1.433	.235
Line of business the firm engages in Quantification	.017	.084	1	.041	.839
Total number of employees in the firm Quantification	.430	.105	1	16.828	.000
Firm's total asset base excluding land and buildings Quantification	.197	.103	1	3.631	.060
Number of products the company produce Quantification	.218	.090	1	5.864	.018
Company's source raw materials for production Quantification	.159	.072	1	4.887	.030

Dependent Variable: Organisation's business is sustainable in the long term Quantification

Table 9: Coefficients for Each of the Owner/manager's Demographic Variables Against Lagos SMEs' Sustainability

Predictors: Respondent's Gender Quantification Respondent's Marital Status Quantification Respondent's Age Quantification Educational Qualification Quantification Respondent's Years of Experience Quantification Respondent's Religion Quantification Language of the Respondent Quantification Ethnicity of the Respondent Quantification Zone of the Respondent Quantification Firm's Age Quantification Firm's line of business Quantification Total number of employees Quantification Firm's Total Asset Base Excluding Land and Buildings Quantification Products the Company Produce Quantification Company's Source of Raw Material for Production Quantification

Source: SPSS 21 Output File

5. Summary, Conclusion, and Recommendation

To *summarise*, the paper evaluated the potential effects of the factors in the operating environment of the selected SMEs in Lagos state and how they influence the sustainability and survival of the businesses in the medium to long term. The original hypothesis was that there was significant link between the environmental factors and the sustainability of the SMEs, and the results confirmed that those factors actually have significant influence on whether the businesses are sustained or not. When both preliminary and further analysis were done, coupled with whittling down of the number of original explanatory variables, nine key environmental constructs emerged as the most significant to sustaining the sampled businesses, ranging from *power supply, infrastructural facilities and inconsistent government policies* as the three most important to *harsh operating environment and regulations, firm's location and inappropriate technology* as the least important three of the nine; however, the last three are still more important than others in the regression model. The implication of this result is that power/electricity is the most significant clog in the wheel of the businesses sampled. Given the experience of the general public with regards to irregular power supply, the experiences of most businesses in the country, especially those that rely mostly on power like the manufacturing outfit, are likely to be similar to what the businesses' owners and managers in this study have shared. It is also important to note that certain issues such as customer dissatisfaction, lack of employee commitment and managerial inefficiency, are internal to the SMEs themselves, and also very important areas for their management to pay attention to if the lack of sustainability of businesses are to be resolved.

In *conclusion*, although many of the environmental issues debilitating SMEs located in Nigeria are government related, some fundamental problems are connected to the businesses themselves. For example, any business that has problem with satisfying its own customers, employ people who are not committed to the work that they do, and are led by managers who appear inefficient in their duties plans to fail, given that such problems are already compounded by the apparent lack of adequate commitment from the Nigerian government towards small and medium-sized businesses. Therefore, the businesses themselves must be up and doing in order to combine their own efforts with whatever government is offering to be successful.

With these findings, it is *recommended* that all stakeholders, owners and managers of businesses, their employees, and Nigerian government need to pull resources together to ensure businesses, including the new and the old, and particularly the SMEs can survive and be sustained for the growth and development, not only of the businesses, but of the nation as a whole. Arguably, only healthy businesses can survive to contribute to nation's development. The onus is particularly on the businesses to solve the internal problems identified in this study in the first instance; it is then that any efforts government make can be useful to the SMEs. Otherwise, the ongoing efforts by the Nigerian government and those of its relevant agencies could become wasted; and the case becomes that of the businesses crying wolf while they are also lacking in their own duty of care and responsibilities to their own organisations. Owners particularly owe it to themselves to ensure well managed and resourced business outfits to ensure whatever government provides is aligned for future sustainability.

6. Contribution to Knowledge

Despite Lagos State's reputation as a major commercial hub in Nigeria with the largest concentration of SMEs within the nation (Obokoh, 2008), and the state accounting for about 70% of Nigeria's manufacturing output, studies relating to how such firms could be sustained as a going concern appeared to be few and far between; rather, they are more generic on SMEs (e.g. Ihua and Siyanbola, 2012; Oyelola et al. 2013).

This study has not only enhanced existing studies on Nigerian SMEs, it has done so by focusing on manufacturing and service firms capable of boosting the nation's economy if appropriate policies are put in place. In addition, it is common knowledge that many new businesses do not survive for long; for instance, 60 percent of new firms in Nigeria do not survive the seventh year from their inception (Adelowo, Olaopa and Siyanbola, 2012). The authors identify the environment as fundamental to the survival of such firms. Essentially, the gap identified by Adelowo, Olaopa and Siyanbola partly aligned with the main aim of this research that explored the nexus between the Nigerian contextual environment and the sustenance of SMEs within it.

Moreover, this study will be of immense benefits to policy makers in Nigeria as they garner environment-linked information to produce business friendly policies for the nations firms, particularly the SMEs. Also, owners and managers of small and medium-sized businesses can harvest valuable information to keep their businesses going in possible perpetuity. Lastly, this study show owners and managers that personal identities such as ethnicity, whether male or female, old or young, married or not, language being spoken etc. are key factors in whether their businesses are sustained or not.

7. Suggestions for Future Research

In view of the results from this study, it appears that not only are issues relating to government causing problem for the SMEs, there is human resource incapability within the businesses themselves. Therefore, future studies could delve further into the human resource issues, particularly with regards to the SMEs sampled in this study. Increasing the sample size could throw more light into this area. Additionally, the study did not distinguish between the effects of the environmental problems on the manufacturing SMEs and that of the services SMEs as the two types make up the sample. This area can be disaggregated in future to understand whether the impact of the identified environmental factors differ for both SME types, especially with regards to the issue of problematic power supply that cripple most businesses in Nigeria, irrespective of size. This can be more problematic for the micro, small and medium-sized ones that could already have other challenges like funding, in which case they cannot continually afford power generation by other means that are often

too expensive. Finally, future studies in this area could incorporate demographic variables into analytical models to understand how they impact the ability to sustain a business entity for the foreseeable future.

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