



## **An Investigation of the Factor Structure of Business Environmental Factors in the Pharmaceutical Sector in Kano Metropolis, Nigeria.**

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**Abstract.** This study was conceived to investigate the business environmental factors in Kano metropolis, North West Nigeria, and determine their structure within the business environment as it affects manufacturing pharmaceutical companies. Thirty two companies were selected for the study. The study adopted a descriptive correlational and survey designs, three hundred and twenty (320) researcher devised questionnaires were distributed to employees of the pharmaceutical companies. The paper established various levels of the nature of the components that made up the dimensions of the business environment in Kano Metropolis. The study established that factors in the legal, technological, existing and potential suppliers, and socio cultural factors constitutes 63.23% variation in the business environment. The study recommends that manufacturers of pharmaceutical products in Kano state should consider and pay close attention to these factors if they are to succeed in their operations and become competitive.

### **1. Introduction**

The purpose of this study is to investigate the business environmental factors among pharmaceutical companies in Kano metropolis, Nigeria. Several studies and public pronouncements by senior government officials and stakeholders in the pharmaceutical sector, and academicians portray a persistent picture of challenges and hurdles faced by manufacturers in the entire manufacturing sector, which has been bedeviled by challenges seemingly from the business environment. For example, Obasanjo, (2014) asserted that capacity utilization of Nigeria's indigenous industries was at 50%, in the same vein Egbetokun, (2014), argued that manufacturing companies in south western Nigeria operate in a challenging environment characterized by high import dependency, inappropriate policies, lack of transparent governance and weak industrial capabilities. He also concluded that among others manufacturing companies in south west Nigeria generally, operate in an unfriendly environment as a result of many adverse environmental factors such as government laws and regulations, weak industrial capabilities etc.

## **2. Problem statement**

Many countries face enormous challenges in providing qualitative healthcare for its citizens. Nigeria with a rapidly growing population; the biggest in Africa one hundred and forty million 140 Million people by Census, (2006) figures, is not an exception. On the other hand, many indicators point to a poor performance on the part of the domestic pharmaceutical companies who are an integral and important part in providing basic drugs and medicines. Nigeria is heavily dependent on importation of pharmaceutical products from China, India and Egypt (Gumel, 2014). In a related development Olarewaju and Folarin, (2012) observed that in contemporary Nigerian business environment, performance is predicted on such factors as low-sales, high cost of production, low capacity utilization, lack of foreign exchange to source the needed inputs, poor power supply, and low quality of finished goods and services among others. These issues have led to lack of proper integration of various corporate sub-systems in Nigerian organizations resulting in failure to achieve their stated goals and objectives.

In a related development the performance of the pharmaceutical manufacturing sector according to Soludo (2011) is nothing to write home about as Nigeria does not have comparative nor competitive advantage in the manufacture of pharmaceutical with the country heavily dependent on imported drugs and medicines. According to Borodo, (2008) cited in Onouha, (2013) between the year 2000 and 2008, about 820 manufacturing companies have closed down or suspended production, 60% of them are ailing, while only 10% of them mostly multinationals currently operate at sustainable level. This therefore, paints a gloomy picture of the Nigerian manufacturing companies. This study is an attempt to explore the business environment among the pharmaceutical manufacturing companies to examine and understand the structures making up the constituents and dimensions within such an environment.

## **3. Literature Review**

### **3.1 Business environmental factors**

The business environment according to Duncan (1972) consists of relevant physical and social factors outside the boundary of an organization that are taken into consideration during decision making. Bourgeois, (1980) cited in Daft et al (1988) stated that the environment can be conceptualized as having several sectors that exists in two layers. The closest layer to the organization is the task environment which includes sectors that have direct transactions with the organization. The task environment which influences day-to- day organizational operations and goal attainment includes sectors such as competitors, suppliers and customers. The outer layer is called the general environment and refers to sectors that affect the organizations indirectly. The general environment often includes social, demographic and economic sectors. For a specific business organization, the task versus the general environment depends on how the firm's domain is defined and how policy makers choose to navigate the domain. In the manufacturing industry,

customers, competitors, suppliers and technology may be part of the task environment.

Nordemeyer, (2013) postulates that business leaders can control aspects of the internal environment that can positively or negatively affect the company's operating and financial results. For example, leaders shape their company's culture, establish the company's organizational structure and create policies that guide employee behavior. However the greatest challenges to business success may be a consequence of the external environment which a company has little, if any control. To address these challenges, business leaders conduct environmental analysis and develop policies and processes that adapt company's operations and products to the environment. Successful businesses adapt their internal environment including human and financial resources, policies, technologies, and operations to the external environment. The company performs an environmental analysis to identify the potential influence of particular aspects the general operating environments on business operations. This analysis identifies the opportunities and threats in a business environment.

Daft, Sormunen, and parks (1988) observed that environment creates both problems and opportunities for organizations. Organizations depend on the environment for scarce resources and they often must cope with unstable, unpredictable external events. Similarly, the environment, often, more than any other factor, affects organizational structure, internal processes and managerial decision making (Pfeffer and Salancik, 1978). Despite the fact that quite a number of researches has been undertaken about environmental uncertainty, the question about environmental uncertainty, the question remains, how do senior managers learn about the environment? Environmental scanning is the means through which top managers perceive external events and trends, (Hambrick, 1980). Scanning represents a difficult organizational problem because the environment is vast and complex, and manager's experience bounded rationality-they cannot comprehensively understand the environment (Cyert and March, 1963).

### **3.2 Socio-Cultural Factors**

Dess, et al (2010) are of the view that, socio cultural forces influence that values, beliefs, and lifestyles of a society. Examples includes a higher percentage of women in the workforce, dual income families, increases in the number of temporary workers, greater concern for healthy diets and physical fitness, greater interest in in the environment, and postponement of having children. Such forces enhance sales of products and services in many industries but depress sales in others. According to Akhtar, (1995) culture is one of the elusive phenomena that we all seem to recognize but find difficult to define. Scholars however, agree that culture is all encompassing it includes the entire heritage of a society and reflects a total way of life. Being a social activity, a social activity an activity like marketing involves interactions among people, products and institutions. These complex and subtle interactions are shaped by the cultural environment, buyer's interactions with sellers. According to Robinson, (1994) social factors that affect a firm involve the

beliefs, values, attitudes opinions and lifestyles of persons in the firm's external environment. Like other forces in the remote external environment, social forces are from the efforts of individuals to satisfy their desires and needs by controlling and adapting to environmental factors.

### **3.3 Political and Legal Environment**

Governments play important roles in the regulation of businesses and marketing activities Akhtar, (1995), the agreement between the government and the firm that sets the stage for the firm's operations in the country seldom remains in effect for a long time. Overtime, the government may intervene and impose additional conditions on the firm's operations. Governmental interventions; that interfere with or prevent business transactions, or change the terms of agreements, or cause the confiscation of wholly or partly foreign owned business property are referred to as political risk. Robinson, (1994) stated that the direction and stability of political factors are major consideration for managers in formulating a company strategy. Political factors define the legal and regulatory parameters within which the firm operates. Political constraints are placed on firms through fair trade decisions, antitrust laws, tax programs, minimum wage legislation, pollution and pricing policies and many other actions aimed at protecting employees, consumers the general public and the environment. Laws and regulations are commonly restrictive they tend to reduce the potential profit of firms. However, some political actions are designed to protect firms. Such actions include patent right laws, government subsidies, and product research grants. Political factors may either limit or benefit the firm they influence.

Smith, Anold and Bizzel, (1998) postulates that government and political factors are exerting an increasing influence on how businesses operate, firms must comply with regulations dealing with hiring practices, taxes, consumer lending, safety, pricing, advertising, plant location and pollution. Government activity provides both opportunities and threats. Thus, some government programs (for example, tariffs on competing foreign goods and tax reductions) provide growth or survival opportunities. Conversely, increased taxes in certain industries could threaten profitability. Dess et al (2010) stated that political processes and legislation influences environmental regulations with which industries must comply. Government legislation can also have a significant impact on the governance of corporations.

### **3.4 Economic Environment**

Economic factors according to Dess et al (2010) affects all industries, from suppliers of raw materials to manufacturers of finished goods and services, as well as all organizations in the service, wholesale, retail, government and nonprofit sectors. Key economic indicators include interest rates, unemployment, the consumer price index, the gross domestic product, net disposable income. In the same vein, Robinson, (1994) asserted that economic factors concern the nature and

the direction of the economy in which a firm operates. Because consumption patterns are affected by the relative affluence of various market segments, in its strategic planning each firm must consider economic trends in the segments that affects its industry on both the national and international level. It must consider the general availability of credit, the level of disposable income, and the propensity of people to spend. Prime interest rates, inflation rates, and the trends in the growth of the gross national product are other economic factors it must consider.

### **3.5 Technological factors**

According to Robinson, (1994) to avoid obsolescence and remote innovation, a firm must be aware of technological change that might influence its industry. Creative technological adaption can suggest possibilities for new products, for improvements in existing products, or in manufacturing and marketing techniques. A technological breakthrough can have a sudden and dramatic effect on a firm's environment. It may spawn sophisticated new markets and products or significantly shorten the anticipated life of a manufacturing facility. Thus, all firms, and most particularly, those in turbulent growth industries must strive for an understanding of both existing technological advances and the probable future advances that can affect their products and services. According to Smith, Arnold and Bizzel, (1998) there are very few companies in the United States of America for example that do not depend on an increasingly sophisticated technological base. The high probabilities for continued technological advances provide both opportunities and threats for entire industries and for specific firms. Firms must also be alert for new technologies that can directly or indirectly make their products obsolete. Similarly, developments in technology, according to Dess et al (2010), lead to new products and services and improve how they are produced and delivered to the end users. Innovation can create entirely new industries and alter the boundaries of existing industries. Technological developments and trends include genetic engineering, internet technology, computer aided design/ computer aided manufacturing, research in artificial and exotic materials. The effect of a trend or event in the general environment vary across industries, for example in the United States of America, government legislation (political/legal) to permit the importation of drugs from foreign countries is a very positive development for drug stores but very negative event for the U.S. drug manufacturers. (Dess et al 2010)

### **4. Hypothesis:**

H1: Business environmental factors are a multi dimensional construct in the pharmaceutical industry in Nigeria.

### **5. Methodology**

Survey design was adopted for this study. Both qualitative and quantitative approaches were also employed in the study. Three hundred and twenty (320)

questionnaires were distributed in thirty two (32) pharmaceutical companies within Kano metropolis, Nigeria. The respondents are employees selected using purposive sampling technique, managers, depot manager, distribution managers, sales representatives and pharmacists that have worked for their companies for a period of five years and above. A total of two hundred and fifty three questionnaires were retrieved representing 79% retrieval rate.

The questionnaire was validated; first to ensure face validity two experts in the academia were consulted to validate the instrument. Construct validity was done through the Kaiser Meyer Olkhein (K.M.O) test which yielded good and acceptable results for all the questionnaire items. Also, to ensure reliability of the study instrument, Chronbach Alpha was used and the scores revealed acceptable and good outcomes for all the constructs.

Table 5.1: Validity test (K.M.O)

Questionnaire items	Values	Rating
Legal environment	0.810	Good
Existing and potential suppliers	0.690	Acceptable
Technological factors	0.697	Acceptable
Socio cultural factors	0.784	Good

Source: Field Survey, 2015

Table 5.2: Reliability test (Chronbach Alpha)

Constructs	Chronbach's Alpha values	Ratings
Legal environment	0.658	Acceptable
Existing/potential suppliers	0.749	Good
Technological factors	0.646	Acceptable
Socio cultural factors	0.761	Good

Source: Field Survey, 2015

## 6. Results and findings

Table 6.1: Descriptive statistics of Business Environmental Factors

Questionnaire Items	Mean	Std. Deviation	Description
Assessment of the regulations governing the pharmaceutical sector	2.8814	0.64378	High
Level of legislations governing patent rights	2.7747	0.65513	High
Level of import restrictions	2.8419	0.60970	High
Level of import duties	2.8893	0.67525	High
Rate of restrictions on advertisements and promotional activities	2.7708	0.55171	High
Nature of laws governing the employment in the sector	2.8696	0.52211	High
Performance of company suppliers	3.0988	0.63786	High
Supplier's contribution to the success of the company	3.0949	0.64156	High

Rate of supplier turn over	2.4822	0.72695	Low
Policy changes affecting suppliers	2.8379	0.55762	High
Rate of supplier evaluation	3.1383	0.53511	High
Withdrawal of suppliers from the company	2.2569	0.76194	Low
Level of technological change in the pharmaceutical sector	2.9881	0.42241	High
The rate at which the company switch to new technology	2.7668	0.56779	High
Adoption of information technology by the company	2.9091	0.52292	High
Technological innovation by the company	2.5731	0.62328	High
How technology has helped break through in company's research	2.5455	0.71472	High
Major technological problems within the company	2.2253	0.73506	Low
Cultural influence on company operations	2.4783	0.58801	Low
Relationship between the company and the environment	2.9802	0.56660	High
Company participation in social activities	2.9289	0.69213	High
How gender issues affect the company	2.4545	0.73119	Low

Source: Field Survey, 2015

Table 6.1 above represents the descriptive analysis of the questionnaire items to measure the level of business environmental factors among pharmaceutical companies, the mean scores indicates some areas of particular concern from the factors within the environment. These includes the rate at which suppliers withdraw from doing business with the companies with a low mean score of (2.22569), major technological problems within the companies also low mean score of (2.2253).

#### Interpretation of the mean scores

Mean range	Description	Interpretation
3.26-4.00	Very high	Very good
2.51-3.25	High	Good
1.76-2.50	Low	Fair
1.00-1.75	Very low	Very poor

Source: Suleiman, (2006) and Field, (2005).

Table 6.2: Factor structure of Business Environmental Factors

Rotated factor matrix	Legal environment	Technological factors	Existing and potential suppliers	Socio cultural factors
Legal environment 1	0.842			
Legal environment 2	0.789			
Legal environment 3	0.722			
Legal environment 4	0.749			
Legal environment 5	0.628			

Technological factors 1		0.717		
Technological factors 2		0.627		
Technological factors 3		0.619		
Technological factors 4		0.672		
Technological factors 5		0.629		
Existing and potential suppliers 1			0.525	
Existing and potential suppliers 2			0.572	
Existing and potential suppliers 3			0.551	
Existing and potential suppliers 4			0.526	
Existing and potential suppliers 5			0.527	
Socio cultural factors 1				0.592
Socio cultural factors 2				0.572
Socio cultural factors 3				0.585
Socio cultural factors 4				0.571
<b>Eigen value</b>	<b>2.142</b>	<b>2.143</b>	<b>1.078</b>	<b>1.041</b>
<b>Variance%</b>	<b>24.52</b>	<b>23.48</b>	<b>8.42</b>	<b>6.81</b>
<b>Cumulative%</b>	<b>24.52</b>	<b>48.00</b>	<b>56.42</b>	<b>63.23</b>

**KMO=0.72,  $\chi^2=1321.50$ , DF=105, sig=0.000, determinant= 0.012**

*Source: Field Survey, (2015)*

Table 4 above shows the exploratory factor analysis results which shows the factor structure of business environmental factors, the results indicates that factors in the legal environment, technological, existing and potential suppliers, and socio cultural factors accounted for 63.23% variation in business environmental factors. The results further shows that legal factors (24.52%) was the most important factor in the business environment, followed by technological factors (23.48%), existing and potential suppliers (8.42%) and lastly socio cultural factors (6.81%). All the constructs have Eigen values of greater than (1), implying that they should all be accepted. The results further indicate that, all the items are significant as they all have a factor loading value of more than 0.5. The KMO value at 0.72 indicates the appropriateness or (worthy value of the components) and the sig. value is also significant at (0.00). The determinant is also significant at (0.012) which is greater than (0.00), (Field, 2005) and this further shows that, there is no multicollinearity or singularity between the study variables.

The results of the factor analysis indicates that technological, legal, suppliers and socio cultural factors are the factors that mostly explains the variation in business environmental factors in the pharmaceutical sector in Kano metropolis. Therefore, the pharmaceutical companies must understand the composition and interaction of these factors if they are to fully understand the business environment.

## 7. Test of hypothesis

Results of the exploratory factor analysis (Table 2) clearly indicate the multi dimensional nature of the business environment in the pharmaceutical sector in Kano metropolis, Nigeria: cumulative variance at (63.23%), sig. value at (0.00) are all statistically significant and particularly the determinant at (0.01) is significant enough. Therefore, the null hypothesis of non multi dimensionality of business environmental factors in the Nigerian pharmaceutical sector is rejected.

## 8. Conclusion

This study has successfully established the multi dimensionality of the factors within the business environment. Using exploratory factor analysis, the study establishes statistically significant results for the constructs under investigation, legal factors, technological factors, existing and potential suppliers and socio cultural factors. The study also established various levels for the questionnaire items (descriptive statistics) under business environmental factors and majority of the items were found to be high in value. In the final analysis, the study established that to understand the business environment in Kano metropolis, pharmaceutical companies, must fully understand the interactions of these factors ie legal factors, technological, existing and potential suppliers and socio cultural factors, if they are to understand what constitutes the environmental factors within that environment.

## 9. Recommendations

The following recommendations were put forward which all of came from the findings of the study:

- Pharmaceutical companies should fully understand their interaction with the factors within the environment more specifically, legal environmental factors (24.52%) technological factors (23.48%). These factors have a higher eigen values than other factors in the environment.
- The the state of the pharmaceutical companies should be great area of concern for the government, as they (pharmaceutical companies) contribute significantly to the provision of qualitative healthcare for the teeming population of Nigeria, therefore, government should come up with policies that would boost local production of pharmaceutical products in Nigeria like it was done for the banking sector for example.
- Similarly, the government should look at the environment with a view to remedy some of the challenges coming from there which are hampering manufacturers generally in their operations. These include legal and regulatory constraints, challenges of electricity, and multiple taxation.

## References

Borjesson L.J (1980). Performance and Consensus Strategic, Management Journal 227-248.

- Choo C.W. (2001) Environmental Scanning as Information Seeking and Organizational Learning. Faculty of Information studies University of Toronto. Toronto Canada Information Research Vol. 7 No. 1 October, 2001.
- Cyert R.M. & March J.G. (1963). A Behavioral Theory of the Firm (1<sup>st</sup> edition) Englewood Cliffs, NJ: Prentice Hall
- Daft R., Sormunon J. and Parks D. (1998) Chief Executive Scanning Environmental Characteristics and Company Performance: An Empirical Study, Strategic Management Journal Vol. 9 Pages 123-139 March-April, 2005.
- Davies G.H. (2005) Environmental Scanning International Biopharmaceutical Association [www.kriger.com](http://www.kriger.com) <http://industrypharm.blogspot/2005> 7<sup>th</sup> April, 2005.
- Dess G.G, Lumpkin G.T., and Eisner A.B. (2010) Strategic Management Text and Cases Fifth Edition. McGraw Hill Irwin, U.S.A
- Duncan R.B. (1972) Characteristics of Organizational Environments and Perceived Environmental Uncertainty Administrative Science Quarterly pp 313-327
- Egbetokun A. (2011) Environmental Scanning Strategy of Manufacturing Companies In South West, Nigeria [www.academia.edu](http://www.academia.edu) 22<sup>nd</sup> April, 2015
- Gumel F. (2014) Nigeria-Pakistan Pharmaceutical Investment Forum [www.pharmaonline.com](http://www.pharmaonline.com) 8<sup>th</sup> September, 2014
- Hambrick D.C. (1980). Operationalizing the Concept of Business-Level Strategy in Strategy Research Academy of Management Review Vol. 15 No. 4, pp 567-575.
- National Population Commission of Nigeria (2006) Abuja, Nigeria
- Nordmeyer B. (2013). What is Environmental Analysis for a Business? Management Study Guide
- Obasanjo O. (2014) Autobiography Presentation of Justice Mustapha Akanbi 26<sup>th</sup> November 2014. Abuja, Nigeria.
- Olarewaju and Folarin, (2012) Impacts of Business Environment on Organizational Performance in the Food and Beverages Industry in Nigeria, British Journal of Arts and Social Science, ISSN: 2046-9578, Vol. 6 No 2 (2012).
- Onuoha B.C. (2013) Factors Militating against the Global Competitiveness of Manufacturing Firms in Nigeria Department of Business Administration Kogi State, Nigeria
- Pfeffer J. and Salancik G.R., (1978). The External Control of Organizations, Harper & Row Publishers, New York, U.S.A
- Smith G.D., Arnold D.R. and Bizzel B.G. (1998) Business Strategy and Policy 2<sup>nd</sup> Edition Houghton Mifflin Company Boston, U.S.A
- Soludo C.C. (2011) Can Nigeria's Manufacturing and Pharmaceutical Industry Compete? Key Note Address National Conference of the Nigerian Association of Industrial Pharmacists Federal Palace Hotel, Victoria Island, Lagos