

Business Strategies for the Management of Economics/Environmental Uncertainties in Nigeria Agro Based Manufacturing Companies

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Abstract

This study was designed to investigate strategies adopted by manufacturing organizations in managing economic and environmental uncertainty. This is against the back drop that no organization is immune from internal and external environmental influences. Economic uncertainty implies a high likelihood of negative economic events in times of economic uncertainty. Enterprises risk management (ERM) can be essential to address this challenge. This study adopted the survey approach in which 15 manufacturing organizations were studied and their economic performance analysed. Data were analysed using the chi-square (χ^2) statistical method. It was found from the test of hypotheses that manufacturing companies in Nigeria adopted strategies that are significantly different in managing environmental uncertainty and these strategies by them are not industry wide. However, goal accomplishment among others manufacturing companies were found to be significantly affected by the level of environmental uncertainty management. The study concludes therefore that strategists in manufacturing organizations must adopt two categories of strategies in dealing with their unfavourable environment. These strategies are the internal strategies adopted when the organization adjusts itself to fit environmental demands and the external strategies to be adopted when the organization considers itself strong enough to change some unfavourable aspect of its environment. The study recommends therefore that manufacturing organization should continuously see their environment by using boundary spanning unit mainly to feel the pulse of the environment in order to know what strategy to adopt.

Keywords: *Business strategies, Management of economic, Environmental uncertainty, Agro based manufacturing company*

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Background to the Study

Every organization has a purpose for which it was established and to achieve this purpose human and material resources have to be acquired. They must be planned for, and turned into goods and services, using the human resources as the change agent. Opaluwa (2010) maintained that manufacturing sector plays a catalytic role in a modern economy and has many dynamic benefits crucial for economic transformation. In terms of GDP, it plays a dominant role. In advance countries it is the leading sector and an avenue for increasing productivity related to import replacement and export expansion creating foreign exchange earning capacity, raising employment and per capita income which in turn increases the consumption pattern. The private sector establishes some agro-based light manufacturing unit. No organization is an island of its own. It has to operate within an environment whenever there is such a complex interplay between man, materials and the environment, an economic and management problem is created.

According to Fayol (1949.43), of all the basic functions of management such as planning, organizing, commanding, coordinating and controlling, planning is the most important and yet the most difficult responsibility of management. This is because goals and objectives determine operations in the organization. However, plans alone cannot ensure the success of an organization. This is because the environment in which a business organization operates is very dynamic. Steiner (1980) observed that the most important single influence on organizational policy and strategy is the environment inside and outside the organization. The more complex, turbulent and changing the environment, the greater the impact it has on human attitude, organizational structures, and processes. Therefore, since the environment is very complex, organizations must pay close attention than ever before by formulating and implementing economic policies (monetary & fiscal) and strategies.

Organization environment as defined by Schwartz (1980) is the aggregate of the social, cultural, economic and physical conditions that influence the life of an individual, organization or community. It is made up of micro, intermediate, and macro factors. The microenvironment is made up of sub-systems, namely the goals, work systems including technology. The intermediate environment, on the other hand, provides the link between the organization and the macro environment and has its components the suppliers, distributors, pressure group, customers, and employment agencies, etc. all of which are responsible for the acquisition of resources from the external environment or distribution of products or services.

The third business environment which is the macro environment can only be distinguished from the intermediate environment by the degree of control the organization can exercise on these other components. However, the level of control the organization has on its intermediate environment is more than what it has on the microenvironment. The macroeconomic environment is the external business environment which is the totality of forces and institution that are external and potentially relevant to the organization. The macroeconomic environment deals with the economy as an aggregate. It is bounded by geography, the laws, customs, and social values as the citizens have a major impact on how the organization is put together. They determine the technology it people employs and the type of customers it deserves to serve.

Objective of the Study

This study investigated the strategies by manufacturing organization in Nigeria in managing the uncertainties in their operating environment. Specifically, the study aims to,

1. Identify major environmental trends, opportunities, and threats, faced by manufacturing organization in Nigeria
2. Classify the environmental factors into external and internal forces and ascertain how each affects the manufacturing industries
3. Identify how these environmental trends, opportunities, and threats were identified and diagnosed by these firms
4. Identify who in these firms is responsible for the diagnosis of these environmental factors
5. Determine whether complexity and rapidity has an effect on these organizations
6. Examine the strategies adopted by these firms in managing this environmental uncertainty
7. Determine whatever the strategies adopted by the manufacturing organizations are industry-wide
8. Determine how the information concerning environmental factors associated with this organization decision making was gathered
9. Offer suggestions on other possible ways which these organizations can adopt in managing uncertainties in their operating environment

Methodology

This section concentrated on the examination of the research design, the population of the study, the sampling procedure, questionnaire design and method of data collection and the techniques of data analysis.

Research Design

Research design could be seen as a framework used as a guide in collecting and analyzing the data for a study. For this study, the research design was based on the cross-sectional form of quasi-experimental design which enabled the researchers to collect primary data. It, therefore, provided the first-hand information. This was achieved through astute questioning about past happenings and present practices. A structured questionnaire was designed and administered to 25 manufacturing organization for the study. The structured questionnaire method of inquiry was chosen because of its numerous advantage of viz

- i. It eliminated the potential interview bias;
- ii. It gave the respondents greater confidence in their anonymity and thus allowed them to feel free to express views they might not have otherwise expressed;
- iii. It was less demanding for the respondents who were uncomfortable with a very lengthy interview;
- iv. Finally, it resulted in standardized answers which made the analyses easier.

To complement the questionnaire method and to reasonably eliminate its drawback (respondent were required to pick answers from given options and the inability or lack of patience to read through the questions) the interview method was also used. This allowed for

an in-depth analysis. The questionnaires were designed among other things to cover the views of the strategist in the manufacturing organization studied as to the strategies adopted by them in managing the numerous uncertainties in their operating environment.

Population of the Study

The respondents in this study were those well acquainted with the strategies of management activities of their respective organization namely the chief executives, marketing managers, production managers, finance managers, administrative managers, and public relation managers all drawn from twenty-five manufacturing organization in Rivers state.

The population of the study was chosen based on the following criteria;

- i. The manufacturing companies are located in rivers state and are easily assessable; furthermore, they have their headquarters also located in rivers state. this is necessary strategic decision which has far-reaching effects on the organization are normally considered corporate affairs and usually taken in a positive response to the operating environment.
- ii. This organization has to be in existence for at least 5 years
- iii. They have established procedures for making/taking decisions this enables us in our examination of the strategies adopted by these organizations in managing the uncertainties in their operating environment.

Sampling Procedures

The initial sample for this study was 25 manufacturing firms that met stipulated criteria. They were drawn from a population of over 50 manufacturing firms in rivers state through systematic random sampling. Out of this number, 15 organization responded and these 15 forms our sample size.

Data Collection Method

This included the primary data which involved the distribution and collection of the questionnaire to the respondent and personal interviews that was granted to the researcher by the respondents. This interview provided a forum where a rapport was established and the researcher was opportune to elaborate on the questions and terms which the respondent may not have understood. Secondary data sources were also used. These include published materials like books, journals, periodicals, etc In all 150 questionnaires were distributed to the 25 manufacturing organizations initially chosen, 6 copies of the questionnaire to each company, 90 copies were retrieved and 52 usable copies were used for the analysis.

Data Analysis Technique

To achieve the objective set out, questions were analyzed, discussed and presented under the various sub-heading in the analyses section. The simple percentages and averages were used to classify the responses into categories that attempted to provide possible answers to our research questions.

The chi-square test (χ^2) was used primarily to test our research hypothesis. the chi-square formula is as presented below:

$$X^2 = \frac{(O - e)^2}{e}$$

where

- o: represent observed frequency
- e: represent expected or theoretical frequencies

Presentation of Data, Analysis, Findings, and Discussion

Data was primarily collected through the use of a structured questionnaire administered to 25 manufacturing firms headquarter in Port Harcourt. In all 150 copies of the questionnaire were administered. Out of this 90 was retrieved. However, 52 usable copies representing about 58 percent were used for the analysis. Hence analysis, findings discussion was based on 52 usable copies out of 90 copies of the questionnaire we were able to retrieve

Economic/Environmental Condition

The economic conditions of the country also have a huge impact on the firms that exist within the economy such factors include GDP of the economy, per capita income, availability of capital, utilization of resources, state of the capital market, interest rates, unemployment levels, etc. Every organization regardless of the industry it is in one whether it is profit-seeking or not –faces some degree of environmental uncertainty. is because no organization is able to generate internally all the resources it needs to sustain itself. Organization source input from their environment and inject their output into the environment table below show how respondents saw their environment. The presentation is made along functioning lines,

Table 1.

Function	Condition	Percentage
	Unfavourable	%
Production	8	15.4
Finance/Accounting	9	17.3
Marketing	15	28.8
Management	20	38.5
Total	52	100

From the above, it shows that there is consciousness of the rather unpredictable nature of the Nigerian business environment. Again this assessment is reasonable as the marketing function is a boundary function. a good part of their job entails interaction with the production function assessed the environment as unfavorable.

Managers of manufacturing organization readily point to the unstable and highly volatile political and economic environments. The identity frequents and rather unpredictable and sometimes somersaulting government policy as the most crucial cause of the unfavorable business environment. They said the rest political climate has adversely affected other environmental factors. For instance, they are of the opinion that the unstable political environment has adversely affected the economy which has also affected the ability of the manufacturing organization to catch up with rapid technological advances.

The interesting aspect of this study is that we found that manufacturing organization is not feeling helpless they see the unfavorable environment as a challenge and they have designed their own arsenal to cope with their business environment. This takes us to research on how manufacturing organization manages their environment. in general, we can classify it into two broad categories: the internal strategies and the external strategies of managing an uncertain business environment

Internal Strategies

Internal strategies are those strategies that will require an organization to adapt and change its actions to fit environmental demands. in using these strategies an origination adopts by modifying its self. These strategies are considered internal because the adaptation comes from within the organization. Manufacturing organization in Nigeria identified seven internal strategies they adopt in coping with environment uncertainties which are presented below.

Table 2: Internal Strategies for Managing Environmental Uncertainties

Strategies	Response	Percentage(%)
Domain choice	26	14.3
Recruitment	35	19.2
Environment scanning	48	26.4
Buffering	37	20.3
Smoothing	12	6.6
Geographic dispersion	22	12.1
Rationing	2	1.1
Total	182	100

Source: Survey data (2014)

The above shows that environmental scanning is the most popular internal strategy adopted by the manufacturing organization in Nigeria to cope with environmental uncertainties. In environmental scanning, it entails scrutinizing the environment to identify factors or actions that might impinge on the organization's operation.

Buffering is the second most important internal strategies adopted by the manufacturing organization in Nigeria. Buffering centers around the insulation of its operating core (production unit) from environmental factors at the input and output side. On the input side, buffering entails stocking materials, etc.

Table 3: Extent of buffering

	Response	Percentage
High	28	53.8
Moderate	19	36.5
Low	5	9.6
Total	52	100

The table above shows that most respondents (over 90%) thought the extent of buffering was above average.

The next internal strategy is recruitment which ranked third in importance recruitment strategy can lessen the adverse impact of the environment on an organization. The practice of hiring executives from competing firms in order to acquire information about their competitor's future plans is widespread among manufacturing organizations in Nigeria. The recruitment strategy also involves hiring retired military officers. The practice of hiring retired military officer is particularly prevalent among these companies retired generals are typically appointed to the boards of these companies with the hope that these generals will use their "connection" to get information or favors from government largely constituted by their contemporaries.

External Strategies

External strategies are adopted by companies with the expectations of changing the environment hoping it would become more favourable.

Table 4.

Strategies	Response	Percentage(%)
Contracting	46	38.0
Co-opting	30	24.8
Advertising	38	31.4
Coalescing	5	4.1
Lobbying	2	1.7
Total	121	100

The above table shows contracting as the most popular external strategy adopted by manufacturers in Nigeria to manage environmental uncertainties. contracting protects the organization from changes in quantity or price on either input or output by selling output or buying input at a predetermined price. having done this the organization is no longer affected by prices variation that may ensure in the course of the contract period...

In this research, we were also interested in finding out the followings

1. Are strategies adopted in managing environmental uncertainty industry-wide?
2. Has education level of strategist got anything to do with the environmental uncertainty?
3. Does the level of environmental uncertainty management affect goal accomplishment?

The table below outlines the views of our respondent to the question "is strategies adopted by your organization unique to the manufacturing industry?"

Table 5.

	Response	Percentage
Yes	18	34.6
No	34	65.4
Total	52	100

It shows that 65% of our respondents are of the view that the strategies they adopted in managing environmental uncertainty is not industry specified.

Now to the question of “does educational level of strategist influence level of environmental uncertainty management” our respondents' expressed the opinions given as

Table 6.

	Graduate	Non graduate
Uncertainty Management level		
High	14	20
Moderate	10	8
Low total	5	5
	29	23

It shows that 14 graduate strategist as opposed to 10 no graduate strategist ranked their level of management of environmental uncertainty as high whereas 10 graduate strategist and 8 non graduate strategists ranked it as moderate. Only 5 graduate and non graduate strategists ranked it as low.

In the test of the hypothesis, we would see whether there is a significant difference in the performance of both categories of strategies. It is crucial to point out that a longitudinal study in which the performance of the two categories of strategies is monitored over a time period would have been a more realistic assessment of the relationship between education and level of management of environmental uncertainty

We also asked our respondents whether goal accomplishment is affected by the level of management of environmental uncertainty. Their response is given below

Table 7: Goal accomplishment and environmental uncertainty

	Response	Percentage (%)
Yes	40	76.9
No	12	23.1
Total	52	100

Source: Survey data (2014)

Test of Hypotheses

Hypothesis one

Strategies adopted by manufacturing organization in managing environmental uncertainty are not significantly different.

HO: Domain choice, recruitment, environmental scanning, buffering, smoothing and geographic dispersion as strategies for managing environmental uncertainty are not significantly different in their relevance

$$HO: P1=P2=P3=P4=P5=P6=1/6=(0.17)$$

$$HA: P1 \neq P2 \neq P3 \neq P4 \neq P5 \neq P6$$

Where;

P1=domain choice

P2=recruitment

P3=environment

P4=buffering

P5= smoothing

P6=geographic dispersion

Test statistics will be the chi square

$$X^2 = \sum_{i=2}^K \frac{(O_i - E_i)^2}{E_i}$$

Where

O_i = observed frequency for the ith cell

E_i = expected frequency for the ith cell

K = number of cell categories

k-i = degree of freedom

Computation of Test Statistics

$$E_i = 182 \times 0.17 = 30.9$$

$$X^2 = \frac{(26-30.9)^2}{30.9} + \frac{(35-30.9)^2}{30.9} + \frac{(48-30)^2}{30.9} + \frac{(37-30.9)^2}{30.9}$$

$$+ \frac{(12-30.9)^2}{30.9} + \frac{(22-30.9)^2}{30.9}$$

$$X^2 = 26.11$$

Decision

The calculated value of the test statistics (26.11) is greater than the critical value (11.11) so we reject the null hypothesis and accept the alternate hypothesis. Conclusively this test shows that at 5% level of significance manufacturing companies in Nigeria adopted significantly different strategies in managing environmental uncertainties

Hypothesis Two

HO: There are no industry wide strategies for managing environmental uncertainties

HA: There are industry wide strategies for managing environmental uncertainties

Test Statistic

$$X^2 = \frac{K}{\sum_{i=1}^K} \frac{(O_i - E_i)^2}{E_i}$$

Where the terms are previously defined

Table 8: Computation of Test Statistic

Category	Observed frequency	Expected frequency	(O.E)
Yes	18	26	2.46
No	34	26	2.46
Total	52	52	3.92

Source: From Table b5

($E_i = 52 \times 50$)

Decision

The calculated value of the test statistic (4.92) is greater than the critical value (3.84) so we reject the null hypothesis and accept the alternate hypothesis. The conclusion here is that at 5% of significance, strategies adopted by manufacturing organization are not industry wide.

Hypothesis Three

HO: The level of environmental uncertainties management in manufacturing organization in Nigeria is not significantly related to education, level if the strategies in these organizations

HA: The level of environmental uncertainty management in manufacturing organization in Nigeria is significantly related to the educational level if the strategist in these organizations

Test Statistic

$$X^2 = \frac{K}{\sum_{i=1}^K} \frac{(O_i - E_i)^2}{E_i}$$

Table 9.

Where the terms are as previously defined

Uncertainty management level	Graduate	Non graduate	Total
High	14(13.4)	10(10.6)	24
Moderate	10(10)	8(8.0)	18
Low	5(5.6)	5(4.4)	10
Total	29	23	52

Source: From table 6

$$E_i = \frac{\text{column total} \times \text{row total}}{\text{Grand total}}$$

$$X^2 = \frac{(14-13.4)^2}{13.4} + \dots + \frac{(5-4.4)^2}{4.4}$$

Decision

The calculated value of chi square (0.221) is less than the critical value (5.99) so we accepted the null hypothesis.

The conclusion we draw from this test is that level of education does not significantly of environmental uncertainty as the 5% of significance

Hypothesis Four

HO: Goal accomplishments in the manufacturing sector is not significantly related to level of environmental uncertainty management

HA: Goal accomplishments in the manufacturing sector are significantly related to level of environmental uncertainty management.

Test Statistic

$$X^2 = \sum_{i=2}^K \frac{(O_i - E_i)^2}{E_i}$$

Where the term is as previously defined

Table 10: Computation of Test Statistic

Category	Observed	Expected frequency	$\frac{(O-E)^2}{E}$
Yes	40	26	7.54
No	12	26	7.54
Total	52	52	15.08

Source: Table 7

$(E_i=52 \times 50)$

Decision

The calculated value of chi-square (15.08) is higher than the critical value, (3.89) so we reject the null hypothesis and accept the alternate hypothesis. The conclusion we draw from this test is that Goal accomplishment among manufacturing organizations in Nigerian is significantly affected by the level of environmental uncertainty management.

Conclusion and Recommendation

In simple terms, economists and managers have two classes of strategies they can take in their attempt to manage environmental uncertainty. They can respond by adopting and changing their action to fit the environment (internal strategies) or they can attempt to alter the environment to fit better with the organization's strength and weakness (External Strategies). The organization is vital for their health, growth, and survival. In conclusion, for dynamics organizations to survive, managers must be able to manage the challenges presented by the environment

On the strength of the findings, the following recommendations are made bearing in mind that managing environmental uncertainty requires analyzing the source of uncertainty and selecting strategies that the organization can implement. Motivating people to implement the strategy is crucial in the organization. This is because only people can put strategy to work. So the manner in which human resources are coordinated through the organizational structure should be regarded as a central challenge to management. In addition, business organizations must adopt the integrated risk management approach in dealing with today's environmental challenges.

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