Economic Environment and Performance of Food and Beverage Sub-Sector of a Developing Economy: Nigeria

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Abstract: **This paper examines the implications of economic environment on the performance of food and beverage sub-sector of Nigeria. The economic environment is an embodiment of dynamic variables characterized by significant challenges impacting on the food and beverage sub-sector. Performance in this sector is measured in terms of profitability, exchange rate, interest rate, current asset, turnover, market share and return on investment among others. This study therefore serves as report of investigation into the implications of these variables on the performance of food and beverage sub sector. The ordinary least square technique is adopted in the methodology and the result reveals a significant relationship between economic environmental variables and the food and beverage sub-sector. The study advocates a strong public private partnership between government and the sector as well as encouragement of stable exchange rate so as to foster economic growth.**

Keywords: **Economic, Environment, Beverage, Food, Performance.**

1. INTRODUCTION

The environment of any organization is the aggregate of all conditions, events, and influences that surround and affect organizations (Levy, 1992). It is an aspiring sesame that economic environment in Nigeria is an embodiment of macroeconomic variables associated with the factors of production of goods and services. The environment is dynamic and constantly changing. This then creates opportunities and threats for food and beverage sub sector of Nigeria. Prominent stakeholders and players in the Nigerian f Food and Beverage subsector include Nestle Food Nigeria Plc, Cadbury Nigeria Plc, Nigeria Bottling company Plc, and Dangote flourmill Plc to mention but a few. The lamentation of manufacturers especially those of the Food and Beverage sub sector is that the operating environment in the country is poor and the cost of business operation is expensive. This impacts on the performance of Food and beverage sub sector of the economy. Thus inadequate management of macro-economic variables such as interest rate, unstable exchange rate, import, export and duplicating of essential infrastructures account for the challenges in this regard.

Instability of exchange rate, monetary and fiscal policies associated with taxes, economic structure such as democracy, industrial, and economic planning variables (budgets,strategic rolling plan/blue prints) as well as the developing stage of the country contribute to the challenges of the economy impacting on food and beverage industries. Others are but are not restricted to economic indices like national income, distribution of income, rate and growth of Gross National Product, per capita income, disposable personal income, rate of savings and investment, value of export and import as well as balance of payment. Infrastructural factors such as financial institutions, Banks, Insurance, modes of transportation and information and communication Technology equally form basic component of the environment and constitute the challenges equally.

Thus Economic environment is of paramount importance to the food and beverage subsector vis-a-vis the manufacturing sector when viewed from global perspective.Nigerian economic environment is characterized by great opportunities for investment buttressed by efficient cost of production, export and import of goods, surplus food production, low interest rate, stable inflation rate, exchange rate stability, demographic variable and other macroeconomic ingredients. Harnessing these opportunities has been hampered by man made/human environmental hazards prevailing in the country. These hazards then tend to pose greater challenges to the opportunities as some metamorphose into theses thereby impacting on the performance of food and beverage sub-sector of Nigeria.

As a result of insecurityand risk in some parts of Nigeria, manufacturing sector including food and beverage manufacturing sub-sector have lost substantial portion of their sales as it becomes problematic to penetrate some parts of the country. In view of these environmental challenges of BokoHaram vis-a-vis insurgency in the country,most Food and Beverage companies have got to relocate. This leads to decrease in Gross Domestic Product (GDP), promotes imports and demotes export among others. As earlier stated above, poor infrastructure associated with unstable power supply affect Food and Beverage subsector.This results in high cost of operation and low profit margin in the sub-sector.

This paper in its six sections focuses on the introduction in section one and Review of Related Literature with theoretical discourse and empirical review in section two. Following section two is the articulation of Food and Beverage sub-sector as driver of economic growth in section three. Section four examines the analytical methodological issues with related statistics while five focuses on data analysis and discussion of result. Section six offers policy advocacy and ends the paper with concluding remarks .

2. REVIEW OF RELATED LITERATURE AND THEORETICAL DISCOURSE

This study is anchored on Malthusian doctrine of population growth and resource scarcity (1798). Here the principles of population as it affects the future improvement of society is articulated as it relates to society and has the ability of increasing production at an arithmetic rate while the number of mouths to be fed increases at a geometric progression rate. This reveals the linkages existing between globalization and the manufacturing sub sector and moves in concert with the philosophy of this studyas Nigerian population has been estimated to be about 160 million, as popularized by Ago Good (2015). Population increases in geometric progress rate and rate of manufacturing especially Food and Beverage sub-sector increases in arithmetic rate .This calls for matching the break of famine gradually and reconciling the scenario, hence the essence of this study.

Moser (2005) maintains that manufacturing firms of which food and beverage sub-sector is associated with and their output in the country have fallen below their counterparts in developing countries. This of course is in the area of cost minimization. Ubok-Udom (2004) popularized the linkage between exchange rate fluctuation and the sustainable growth of domestic output in the Nigerian state. Considering 25 years, that is, from 1975-1991 growth of domestic output as having a functional linkage with the average nominal exchange rate, dummy variable was adopted to denote a period of exchange rate fluctuation. The result of the study showed that all the coefficient of the major explanatory variable (exchange rate variation dummy variable capturing currency depreciation) were negatively signed in all the estimated equation. The result was interpreted that the rate of growth of total GDP and non-oil GDP tends to fluctuate vis-à-vis naira exchange rate. The co-efficient of the explanatory variables with naira value of Gross domestic Product were statisticall not significant.

Government Policies and Economic Environment:

An examination of government policies as they relate to Economic environment reveals that as a result of increased expansionary public sector fiscal policies in 2011, government devised a means of addressing this sceneri.This led to the implementation of stronger monetary policies by the Central Bank of Nigeria (CBN) and under spending of budget amounts. Thus, Oyewole (2014) opined that as a result of the CBN's efforts, the official exchange rate for the Naira has stabilized at about 159 Naira to the dollar or a little above. The combination of CBN's effort to prop up the value of the Naira and excess liquidity resulting from government spending led the currency to be discounted at about 20 per cent on the parallel (non-official) market.

Expanded government spending equally resulted in upward pressure on consumer prices. Inflation which had almost disappeared in April 2000, rose to double digit of 14.5 per cent in August 2001. Government revenue of over $16 billion and about double the 1999 level was facilitated by increased oil in year 2000. Thus the transformation agenda of

Government seemingly reveal the effect of that on the manufacturing activities in Nigeria. This is buttressed by the current report by Renaissance Capital (Rencap) (2015). Hence it is maintained that the manufacturing sector now qualifies as the major driver of economic growth in Nigeria. The food and beverage sub-sector vis-à-vis the manufacturing sub sector seems to be growing as fast as the Telecommunication, oil and gas sectors

3. IMPLICATIONS OF HARSH ENVIRONMENTS ON THE FOOD AND BEVERAGE SUB-SECTOR

A close look at the industrial policy of Nigeria (2015) shows the implications of the harsh economic environments on food and beverage sub-sector. These effect embrace but are not restricted to loss of business opportunities, incurring losses and experiencing liabilities as a result of operating below installed capacity of 47 per cent (2009) and 45 per cent (2010). The harsh environment makes food and beverage sub-sector to contribute very little to the Gross Domestic Product (GDP) of the nation., In 2008, this sector contributed only 4.2 per cent to the nation's GDP and 4.19 percent in 2010. Non creation of employment opportunities, Wealth generation and poverty multiplication become major variables in the country where the rate of unemployment (particularly graduate unemployment is on the increase.

High debt burden to financial institutions, relocation and industries closure of industries as well as poor inventory planning , raw materials and finished product inconsistency coupled with inability of food and beverage industries to compete favourably equally constitute challenges of the system.

Food and beverage manufacturing sub sector is adjudged to be the bedrock of development of nations when viewed globally. This explains why most developing nations attach much attention to this sector in relation to the economic environment. This is not unconnected with the pertinent role of trade, investment and finance in a developmental process. The global network existence during the pre twentieth century era was that the developing nations were affected by anti-developmental vices; import substitution and export oriented industrialization process never offered expected outcome.

The food and beverage manufacturing sector is characterized by increasing cost of production emanating from high tariff, increased cost of energy input, reliance on poor and inadequate public sector infrastructures coupled with high cost of import. Central to improved economic growth in Nigeria is manufacturing which calls for extensive technology based on development of manufacturing and or productive process of a nation.

In recognition of the above challenges therefore a conducive business environment for food and beverage sub sector of a nation should in rarnest be a priority of any responsible government through sound policies devoid of encumbrances but characterized by best ethical practices and conducive business climate.

4. ANALYTICAL METHODOLOGICAL ISSUES

The study on Economic environment and the food and beverage industries in Nigeria spans for a period of 25 years (190-2015). Data were derived from food and beverage industries manufacturing companies in Nigeria quoted in Nigerian Stock Exchange, publications of stock exchange fact books, published financial and production statistics of same industries, central bank of Nigeria statistical bulletin and statement of account and allied publications.

5. ESTIMATION FRAMEWORK

The major centre of this study is on Economic Environment and the food and beverage sub-sector of Nigeria. In the equation for empirical modeling, the ordinary least square technique is adopted with the use of gret-L econometric package. Application and choice of ordinary least square is justified in its merit and distinction so as to avoid bias as well as obtain the appropriate association of values measured in empirical terms. The log linear form allows a direct estimation and interpretation of the associated coefficient of the model and as such the equation is logged in view of this.

6. MODEL SPECIFICATION

For further implementation of this study, the control variables used include profit after tax (pfx), Exchange Rate (exch), Return on investment (riv), market share/leadership (mktsh), current Assets (cast), Gross domestic Product (gdp), interest rate (ir) and Technology (tech).These represent the selected Economic environmental variables associated with the study.

The model takes the form thus: pfx =g (exch, inv, mktsh, cast, gdp, ir, tech) μ --------1

Similarly we have

Pfx = g (ℓ_1 ℓ_2, ℓ_3 ℓ_4 ℓ_5 ℓ_6 ℓ_7) µ ---II

Equation iii then becomes

Pfx = go + g1 L ℓ_1 + g_2 L $\ell2$ + g_3 L ℓ_3 + g_4 l ℓ_4 + g_5 l ℓ_7 µ -----------------------III

g_1, g_2, g_3, g_4, g_5, g_6, $g_7 > 0$

It flows here that

µ represents white noise, disturbance term with usual abnormality properties (with zero mean and constant variance).

µ,fx represent profit after tax while

$\ell\beta_1$ represents log of exchange rate

$\ell\beta_2$ represents log of investment

$\ell\beta_3$ represents log of market share/leadership

$\ell\beta_4$ represents log of current asset

$\ell\beta_5$ represents log of gross domestic product (gdp)

$\ell\beta_6$ represents log of interest rate (ir)

$\ell\beta_7$ represents log of Technology (tech)

Parsimonious empirical Result and Related Statistics PROFIT after tax Equation:

Method of estimation = Ordinary least Squares

Dependent variable: Pfx

Current sample: 1990-2015

Number of Observation: 24

 Mean of dep. Var. = 11.1.1657   LM het. Test = 1.03035[.310]

Std. Dev. Of dep. Var. = 1.03677   Durbin Watson = 1.21958[.000,054]

Sum of squared residual = 17.2865 Jarque-Bera test = 2.17151 [.321]

Variance of residuals = .596087   Ramsey's RESET2 = 7.95839 [.009]

Std. error of regression = .772067   F (zero slopes) = 7.62668 [.000]

R-squared = .812660   Schwarz B.I.C. = 45,5604

Adjusted R-squared = .445441   Log likelihood = -36.7445

Variable	Estimated Coefficient	Standard Error	t-Statistics	P-Value
ΔC	15.5529	3.98060	3,90718	[.001]
Δ L exch	-179243	.171230	-2.05680	[.304]
Δ L riv	-014780	.826302E-02	-2.78871	[.084]
Δ L mktsh	.289034	.181993	1.58816	[.123]
Δ L cast	-1.69249	.745001	-2.27177	[.031]
Δ L gdp	.48792	.041235	2.116138	[.638]
Δ L (ir)	.228917	0.231185	1.99872	[.7718]
Δ L tech	-346728	0.52146	2.66731	[.000]

Source: Gret L Package

The above result reveals an R^2 of 0.812660. This implies that the model explains about 81 per cent of the variations in Economic environment and the food and beverage sub sector of Nigeria. The estimated coefficient of the model is positively signed and is statistically significant at 0.01 per cent. This indicates that the variable has significant impact of the economic environment on the performance of food and beverage sub sector of Nigeria. The estimated coefficient of exchange rate carries a negative sign and the t-value is statistically significant at 0.3 per cent level of significance. This implies that variations and or instability in the rate of exchange rate in the economic environment has adverse effect on the profitability of food and beverage sub-sector. This is contrary to appriori expectation of the management of food and beverage companies.

Considering the coefficient of Return on investment (irv) and the market share, the result for return on investment is statistically significant at 0.08 per cent while that of market share is fairly significant at 0.1 per cent. This explains that investment in the food and beverage sub sector leads to greater profit after tax given a conducive economic environment and this subsequently results in acquisition of great market share in the sub sector. The coefficient of current asset and gross domestic product are statistically significant at 0.03 per cent for Current Asset and 0.6 per cent for gross Domestic product respectively, indicating that there is a significant linkage between current Asset and the performance of food and beverage industries as their efficient performance in a conducive economic environment leads to increase in their contribution to Economic growth of the country. The coefficient of interest rate is statistically not significant. The coefficient of Technology is statistically significant better then 0.1 per cent. This implies that technology as a control variable facilitates great performance of food and beverage industry in a conducive Economic environment. The model then displays respectable results capable of guiding policy analysis.

7. POLICY IMPLICATIONS, ADVOCACY AND CONCLUSION

In this study the revelations that becomes eminent are not far fetched. Thus the significant relationship between Economic environmental variables and the performance of good and beverage sub-sector has been strongly established. The associated econometric model developed is meaningfully relevant in view of the predictive power in the explanation of the model. This implies that the environmental variables in this study foster efficient and effective performance of food and beverage sub-sector of Nigeria when considering the positive and conducive economic climate of the country. The implication is that a responsible government should work towards and encourage the achievement of stable exchange rate, economic growth, technological advancement, return on investment by food and beverage companies as these enhance economic development in an economy.

This paper therefore advocate that government and the food and beverage industries should work as partners in the fight towards actualizing and stepping up the capacity, efficiency and effectiveness of the sub-sector so as to make Nigeria less dependent on foreign inputs in this regard. A negation of this the paper argues is capable of undermining the benefits of large scale production on the public-private partnership nexus. Conclusively then Nigerian Nation is adjudged to be capable of providing all the enabling environment vis-à-vis infrastructure for a robust food and beverage manufacturing sub-sector of a developing economy such as Nigeria. Since the variables in the model can explains up to about 81 per cent of the variables and the Durbin Watson is greater than R^2, it is instructive that there is the absence of spurious regression. The model has useful policy implications.

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