CHAPTER ONE

INTRODUCTION

1.1 Background of the study

A careful look at organizations and environment reveals a symbiotic linkage between the internal and external environment and the organizations in management process and activities. Thus, management thrives in organizations tailored at strategic directions. Organizations in turn are confronted with dynamic, complex as well as highly competitive business environment. The Food and Beverage companies are not left out in this regard. For the Food and Beverage companies to perform and achieve sustainability, there is a great need to comprehend as well as appreciate the dynamic nature as well as the classification of environment they find themselves. This is where the strategic scanning of the external as well as the internal environment becomes inevitable in order to understand and identify the strength, weakness, opportunities and threat (SWOT) of the Food and Beverage Firms in Nigeria.

Glueck (2000) in Subba (2009) defined environmental scanning as the process by which strategists monitor the economic, government/legal, market, competitive, supplier, technological, geographical and social setting so as to determine opportunities and threats to the firm. It follows from the above that strategic environmental scanning is associated with strategic audit of the Food and Beverage firms with emphasis on current performance and strategic posture. Put simply, strategic environmental scanning focuses on the process by which organizations monitor their relevant environment with strategic intent aimed at identifying opportunities and threats affecting their business for the purpose of taking strategic decisions.

The Food and Beverage firms belong to the manufacturing subsector as popularized by the Nigerian Stock Exchange Fact Book. Nestle Nigeria Plc, Cadbury Nigeria Plc and Guinness Nigeria Plc were incorporated in September 25th 1961; January 9th 1965 and April 29th, 1950 respectively (Nigerian Stock Exchange Fact Book, 2012). The nature of business in Nestle Nigeria Plc embraces manufacturing, marketing and distribution of food products including purified water and the manufacture of Hydrolyzed plant protein mix for magi cubes and other food products. Cadbury Nigeria Plc engages in

manufacturing and marketing of food products and drinks, confectionary and domestic products. Guinness Nigeria Plc engages in manufacturing and marketing of non-alcoholic and alcoholic beverages.(Nigerian Stock Exchange Fact Book, 2012)

The adverse effect of the slide in oil price on the Nigerian economy has made all attention to focus on the manufacturing sector of which the Food and Beverage sub-sector is a viable segment.The business environmental turmoil in the country is having an adverse effect on the performance of many Food and Beverage companies in Nigeria. In the past few months, many workers had been sacked in the sub-sector as their managers seek ways of coping with the present turbulence in theenvironment while maintaining success and survival. In spiteof this environmental turbulence, Food and Beverage manufacturing organizations as open systems must effectively depend on their environment for resource acquisition and in turn give feedback to the environment in form of output.Thus, this symbiotic relationship between FoodandBeverage organizations and their external environment can pose problems and present opportunities in the organization and to the same extent increase their level of uncertainty.The external environment which principally consists of general environment and task environment is very important for every kind of business. It enables the business organization to understand outside forces beyond the control of the organization that help to shape the organization. For Nestle, Cadbury and Guinness Nigeria Plc, as well as other Food and Beverage manufacturing organizations, influence from external environment may provide both facilitating and inhibiting impact on their performance. Many Food and Beverage organizations are confronted with performance challenges as a result of their inability to respond properly to the influences from their external environment both at the micro and at the macro level. This haseven led to the ultimate failure of some companies in this sector. As reported by the organized laborof Food and Beverage Senior Staff Association(FUTOB), the contribution of the Food and Beverage manufacturing sub sector to the nation's GDP has been relatively low due to major constraints in their operating environment which have impacted negatively on their overall performance. (Vanguard,2016). Major challenges in this regard include; foreign exchange crisis, weak raw material supply base, low level of technology, government policy instability and discontinuity, high rate of inflation, poor physical infrastructure, high operating expenditure, decreased purchasing power of consumers and epileptic power supply.

As a result of this therefore, it has been difficult for the Food and Beverage sub-sector to meet up with the public expectation of them to record positive performance on account of their viability (industry sourcing, 2016). This has provoked many researches in this regard aimed at discoveringhow best Food and Beverage organizations can gain a strategic understanding of the existing external influences that plague their businesses so as to respond in a way that will ensure organization's survival as well as overall successful business performance.The concept of strategic environmental scanning was first used by Aguilar, 1967. By his postulations, environmental scanning means acquiring information about events and relationships in a company's outside environment, the knowledge of which would assist top management in its task of charting the company's future course of action.(Aguilar, 1967). Typical focal points of environmental scanning include consumers/customers, competitors, organization, market/industry, suppliers, intermediaries, publics, demographic, economic, government, legal, political, cultural, technological and international/global environments.

High rate of inflation has created a highly depressed market with dwindling demand and a consequent increase in cost of production. This has also reduced the purchasing power of people having its immediate impact on the patronage of goods and services. Foreign exchange depreciation and scarcity have further constrained the sector, affecting raw material acquisition as not all materials used can be sourced locally. Changes in economic variables can hinder growth if an organization is taken by surprise. In line with these, economic strategic issues can be contained by an understanding of the changes in the external environment and also timely response to those changes. Both micro and macroeconomic elements such as nature of the country's economy, economic system, tax rates ,interest rates, inflation trends in the country, unemployment trends, import and export policy, exchange rate instability and consumption pattern are all important from the stand view of strategic decisions; thus the need to scan, monitor, forecast and assess the critical elements of such environment.Further challenges can emanate from the political environment. Uncertainty can arise from change of party politics, elections, change of government, government policies like fiscal, monetary, industrial, labour, export and import policies.

Since the success of a business depends largely on goal attainment mostly built around survival, efficiency, stability, growth and profitability, many variables in the environment

influence how each of these goals will be attained. In consideration of this therefore, strategies are formulated with a clear understanding of the above influences coming from the elements of the external environment like customers, competitors, market, intermediate, political, supplier, economic, legal and international environment.

From the foregoing, it is important to understand what kind of influence(if any) strategic environmental scanning can have on performance of Food and Beverage firms so as to facilitate policy making inorder to achieve better performance across customer satisfaction, maintenance of high profit and growth rates, profitable investment and large market share.

1.2 Statement of the Problem

The Food and Beverage subsector in Nigeria is fundamentally one of the sectors adjudged to be the sunrise of as well as the sustainer of the Nigerian populace. Its contribution to National development need not be over emphasized. These firms operate in a dynamic, complex and contemporary environment with all attendant challenges. The Food and Beverage industry in Nigeria has so muchpotential given the size of the country's population of over 180million people. However, low capacity utilization, competition from foreign imports, erratic power supply and poor water supply have plagued the industry in recent times. The problems of power and supply of clean water have added an estimated 2 percent, 3- 25 percent to the cost of production, which has to be passed on to the consumer.(Meristem,2016) Poor road networks, weak telecommunications and lack of a viable transport system have also contributed to costs of input. Dearth of raw materials input andobsolete processes and machinery are other examples of problems facing the industry.

Food and Beverage industry today experience deterioration in performance (Vanguard 2016). This is against the expected industry performance which was forecasted to remain on an upward trend through 2017 on the back of viability of the sub-sector vis a vis a healthy economy and a middle class with higher disposable income (Industry Sourcing, 2016). Being one of the strongest segments in the manufacturing sector of the economy and representing 22.5 per cent of Nigeria's manufacturing industry, 66 per cent of total consumer, with a valued aggregate output of $20.55 billion, equivalent to 4.6 per cent of gross domestic product (GDP) and also generating more than 1.5 million jobs in Nigeria,

the performance decline of Food and Beverage industry requires attention. Available data indicates that the bulk of the companies in this sector, or about 85%, are small and medium enterprises (SMEs) in which many have closed down, others ailing and only a few percent operating at a sustainable level including the industry leaders (Vanguard 2016). Most managers of these Food and Beverage companies including Nestle Nigeria Plc , Cadbury Nigeria Plc and Guinness Nigeria Plc company now resort to work force downsize on the ground of difficult business terrain, dwindling profit, irregular and insufficient power supply. (Food and beverage Industry Report, 2016).

The increase in production costs has also imposed hardship on manufacturers of Food and Beverage companies. This is because even in the face of rising production cost, they do not have the luxury of increasing their prices due to reduced purchasing power of the consumers. This has a cyclical effect in that with high unsold inventory, production would be constrained and eventually reduced, productivity would decline, and competitiveness would be affected resulting in decline in performance. This bad situation, if treated with a wave of the hands may lead to a high mortality rate of Food and Beverage organizations.

The crux of the matter lies in investigating how Food and Beverage firms can examine, appraise and evaluate the implications of different problems on the sustainable performance of food and beverage firms. Performance here captures market share acquisition, rate of turnover, profitability, investment, asset base and goal achievement as well as corporate structure. Thus, the Food and Beverage firms encounter numerous constraints from their external environment. The external environment of the Food and Beverage firms is characterized by societal environmental problems which embrace instability of exchange rate, unstable interest rate, high rate of savings and investment, low technological development, high rate of importation of raw materials and high rate of taxation, unemployment.While some scholars argue that these environmental problems can contribute to the decline in performance of Firms ((Garg et al., 2003; Strandholm & Kumar, 2003; Subramanian et al., 1993; Subramanian, Kumar, & Yauger, 1994; West, 1988)., others reason otherwise (Beal ,2000),.

According to the Food and Beverage Industry report (2016), poor state of infrastructure particularly epileptic power supply, poor technologies, high cost of raw materials, multiple taxation, low consumer spending, security concerns in the country, and stiff competitions

are suspected to be the major challenges that have impacted on the profit growth of the Food and Beverage Industry leading to reduction in profit margin. Also, paucity and poor flow of information as well as low investment in Research and Development may also be part of the factors that hamper the performance of Food and Beverage organizations.

Most of these suspected factors that hamper the performance of Food and Beverage firms arise from the environment which is an embodiment of economic, social, technological, international, marketing socio cultural, regulatory and legal/political problems confronting the food and beverage manufacturers. Thus, by investigating how environmental scanning can help boost the performance of Food and Beverage Firms, the expectation is that having discovered the kind of influence these environmental scanning variables have on the performance of Food and Beverage Firms, their managers can better understand such complex and volatile environment so that uncertainty will be on the decrease. In addition to that, in the face of the present environmental threats, Food and Beverage manufacturing organizations, empowered by such understanding will be able to define their strategies to align with environmental conditions so as to accomplish organizational goals. The focus of environmental scanning is therefore on how organizations can strategically think ahead, identifying and understanding those influences from the environment which can create problems and then examining their options in response to those influences in consideration of their internal strengths and weaknesses. Uncertainties increase when there is such lack of proper information about the events or problems that may threaten performance.

1.3 Objectives of the Study

The broad objective of the study is to examine the extent to which strategic environmental scanning variables influence the performance of Food and Beverage firms in Nigeria.

Specific objectives of the study include:

1. To determine the influence of taxation on profitability of Food and Beverage firms in Nigeria
2. To examine the influence of strategic investment on the sustainable survival of Food and Beverage firms in Nigeria
3. To ascertain the influence of exchange rate on profitability of Food and Beverage firms in Nigeria

4. To assess the extent to which technology influences the profitability of Food and Beverage firms in Nigeria
5. To determine the extent of value added by turnover (sales) on the profitability of Food and Beverage firms in Nigeria
6. To examine the influence of societal environmental variables on goal attainment of Food and Beverage firms in Nigeria

Decomposition of variables

The two major variables are Performance (Dependent) and Strategic Environmental Scanning (Independent). The variables are decomposed thus;

Objective 1

Performance is proxied by Profitability(dependent variable) while environmental scanning is proxied by Taxation (independent variable). Other indicators of performance are turnover, market share, fixed assets, investment, export at a particular point in time, import at a particular point in time, balance of payment and they qualify as other independent/Explanatory variables.

Objective 2

Performance is proxied by profitability (dependent variable) whileStrategic Environmental Scanning is proxied by strategic investment (independent variable). Other indicators of performance present in the model include share capital, fixed assets, current assets, turnover(sales) and market share

Objective 3

Performance is proxied by profitability (Dependent Variable) while Strategic Environmental Scanning is proxied by Exchange rate instability which is the independent variable. Other indicators of performance in the model include industrial production, manufacturing, turnover, market share, share capital, inflation, export at a particular time, import at a particular time, Balance of Payment, GDP and unemployment.

Objective 4

Performance here is proxied by profitability (Dependent Variable) while Strategic Environmental Scanning is proxied by technology (independent variable). Other indicators of performance which are extraneous variables in the model include investment, turnover on sales, fixed assets, current assets, share capital, manufacturing and industrial production.

Objective 5

For this objective, performance is proxied by profitability(dependent variable)while Strategic Environmental Scanning is proxied by turnover on sales (independent variable). Other indicators of performance which are part of independent variables in the model include investment, capacity utilization, exchange rate, industrial production, inflation, unemployment and GDP.

Objective 6

Here, performance is proxied by goal attainment (dependent variable) while Strategic Environmental Scanning is decomposed into Competitor environment, Supplier environment, Socio-cultural environment and Political environment.

1.4 Research Questions

1. What is the influence of taxation on profitability of Food and Beverage Firms in Nigeria?

2. Whatis the influence of strategic investment on the sustainable survival of Food and Beverage Firms in Nigeria?

3. What is the influence of exchange rateon the profitability of Food and Beverage Firms in Nigeria?

4. To what extent has technological changesaffected the profitability of Food and Beverage Firms in Nigeria?

5. What is the value added by turnover (sales) on the profitability of Food and Beverage Firms?

6. What is the influence of societal environmental factors on goal achievement of Food and Beverage firms in Nigeria?

1.5 Hypotheses

H_o: 1 Taxation has nosignificantinfluence on the profitability of Food and Beverage Firms in Nigeria

H_o: 2 Strategic investmenthas no significantinfluence on the sustainable survival of Food and Beverage Firms in Nigeria

H_o: 3 Exchange rate instability has no significant influence on the profitability of Food and Beverage Firms in Nigeria

H_o: 4 Technology has no significant influence on the profitability of Food and Beverage Firms in Nigeria.

H_o: 5 Turnover on sales has not added any significantvalue to the profitability of Food and Beverage Firms in Nigeria

H_o: 6 Societal environmental factors have no significantinfluence on goal attainment of Food and Beverage Firms.

1.6 Significance of the study

The findings of this study shall be of great benefit to the Food and Beverage manufacturing firms operating in Nigeria, managers of all kinds of businesses, and Nigeria economic planners as well. The study will help Food and Beverage firms and managers of organizations understand the changes in their environment and how these changes impact on the organizational performance. Knowledge gained from the study will help improve the performance of manufacturing sector and consequently, the national economy.Findings from the study will guide Nigeria economic planners in policy formulation. Finally, the study will guide all kinds of business organizations on what to do so as achieve successful performance and also sustain it in the midst of a complex and dynamic environment.

1.7 Limitations

Dearth of data needed for this study within the limited time frame posed a little limited to the study. However, twenty five years of this study (1990-2015) is considered adequate in view of constraints associated with non availability as well as unreliable nature of data. The study uses annual secondarydata as well as cross sectional data and effort is made to overcome any unreliable data that could pose limitations to the work.

1.8 Scope of the Study

This study focuses on how Food and Beverage Firms can understand and respond to the changes in their environment using environmental scanning to ensure successful organizational performance with the use of time series data (1990-2015). There are many Food and Beverage firms in Nigeria but only three out of the 11 quoted Food and Beverage Firms as at Dec 1990 will be selected for the study using Stratified Simple Random Sampling. This will provide a good understanding of the environmental factors that affect Food and Beverage firms and guide management on howto employ environmental scanning process to gather and utilize information that will have an important effect on the performance of the firm.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Strategic Environmental Scanning

Strategic Environmental Scanning is a process by which organizations monitor their relevant environment with strategic intent aimed at identifying opportunities and threats affecting their business for the purpose of taking strategic decisions. The origin of research on environmental scanning can be traced to the seminal works of some scholars who popularized the concept in the 60's. One of such notable scholar is Aguilar (1967). Aguilar(1967) ; Auster and Choo (1993) defines environmental scanning as the acquisition and use of information about events, trends and relationships in an organization's external environment, the knowledge of which would assist management in planning the organization's future course of action (Choo,1999). Several other scholars have overtime, built upon Aguilar's definition by reinforcing his perspective about environmental scanning while situating their own definitions within the dictates of the environment at the time of their various researches. These include recent scholars like Fletcher, Frank, Bolland and Eric (2016). They went beyond viewing market related sectors as the most important the focus of environmental scanning. According to them, business environment of the new millennium is characterized by such level of dynamism that requires intense strategic thinking and environmental scanning with focus on all the elements of the external environment, each being as important as the other to aid a complete understanding the organization's environment. In other words a comprehensive environmental scanning process will help food and beverage manufacturers keep a watchful eye on the potential impact of the environmental changes on the business.

Both classical and modern scholars like Aguilar,1967; Hambrick,1981; Jennings and Lumpkin,1992;West,1998; Strandholm and Kumar(2003) agree that organizations who engage in continuous environmental scanning are likely to gain competitive advantage and outperform their competitors. In the same vein,. However Daft and Weick (1998); Kazmi (2008) are of the view that organisational performance is a function of many other factors and so to see strategic environmental scanning as that which directly leads to

organisational performance may be extravagant. In support of this, Saadeghvaziri, Khaef, Motaqi and Esfahani(2012) opine that enormous information mass can constitute threat for companies because companies that scan the environment too vigorously could be drowned in the information and experience information overload, thus, they may only respond reactively.

In the view of Donald (1981), strategic environmental scanning is the managerial activity that entails learning about events and trends in the organization's environment. Strategic environmental scanning involves a continuous monitoring of an organization's environment, taking note of the strengths and weaknesses within the internal environment and looking out for opportunities and threats which the external environment presents. Due to the fact that the environment within which the business operates is in a constant state of change, managers are challenged by the need to scan different sources to obtain information about the environment within which they operate so as respond timely and positively. This will enable them gain competitive advantage in the market place. Competitiveness of an organsation depends on the strategies they adopt. A careful tailoring of scanning to strategic intent does provide input for incremental environment-strategy fit. (Kumar, Subramanian and Strandholm, 2001). For an organization to become competitive, it must have a good knowledge of the environment within which it operates. Hambrick (1983); Anim (1995) suggestthat an organization can avoid surprises from its environment by undertaking strategic environmental scanning. Strategic environmental scanning involves both looking at information (viewing) and looking for information (searching) (Choo, 2002). A uniting point in all these definitions of strategic environmental scanning is the presence of some factors or influences in the external environment of a firm. These factors include events, trends, issues and expectations. As explained by Wheelen and Hunger (2006), events are important and specific occurrences taking place in different environments. Trends are general tendencies or the courses of action along which events take place. Issues are current concerns that arise in response to events and trends. Expectations are demands made by interest groups in the light of their concern for issues. Stoffels (1994) views environmental scanning as that which allows an organization to address external competitive, social, economic and technical issues that may be hard to identify and are persistent. Although organizations are mostly concerned about their external environment in general, strategic environmental scanning casts an

even wider net and analyses the internal strengths and weaknesses of an organization in relation to the external opportunities and threats it faces. All organizations need to monitor at some level what goes on in their environments and recognize their strengths and weakness in relation to it .They must pay attention to the inherent capacity which they can use to gain strategic advantage and also their inherent limitation which can constitute a strategic disadvantage. Organizations operate in an information economy in which knowledge can aid successful performance. Information gathering in strategic environmental scanning involves gathering information about a firm, analyzing the information and using it to forecast the impact of all predictable trends in environmental changes. So the ability to acquire, interpret and use information efficiently will help an organization remain competitive. It is important to note that strategic environmental scanning is complementary but distinct from information gathering activities such as competitor intelligence, competitive intelligence and business intelligence (Choo 2002). Competitor intelligence is focused on the actions, behaviors and options of one or more existing or potential competitor.(Poter 1999). Competitive intelligence is the processes of monitoring the competitive environment so as to enable senior managers in companies of all sizes make informed decisions about everything from marketing, R&D and investing tactics to long term business strategies. Business intelligence concentrates on current competitors but also may include areas such as analysis of potential acquisitions and mergers and risk assessments for particular countries (Glad, 1998). In contrast to scanning for emerging novelty in specific subject areas, strategic environmental scanning takes a holistic view of the environment which involves a broadly based scanning aimed at creating a strategic frame of the organization into the future. Aguilar (1967) identified four types of scanning which include ; Undirected viewing which consists of reading a variety of publications for no specific purpose other than to be informed. Conditioned viewing consists of responding to this information in terms of assessing its relevance to the organization. Informal searching consists of actively seeking specific information but doing it in a relatively unstructured way. These activities are in contrast to formal searching, a proactive mode of scanning entailing formal methodologies for obtaining information for specific purposes.

Morrison, Renfro, and Boucher (1984) simplified Aguilar's four scanning types as either passive or active scanning. Passive scanning can be likened to reading a newspaper. We

tend to read the same kinds of materials--our local newspaper, perhaps a national newspaper. This kind of scanning has its consequences. The information ends up not being used systematically as a strategic information. This could lead to loss of ideas that signals changes in the environment..

Active scanning focuses attention on information resources that span the task and industry environments as well as the macro environment. In active scanning, it is important to include information sources that represent different views of each sector of the environment. Langton (2009) suggests that environmental scanning should be supported by a coherent set of information management strategies that can enable the organization to systematically collect, coordinate, store, analyze and distribute information. Rockart (1979) noted that managers receive too much information but they should focus on critical success factors- that is, areas in which satisfactory result will ensure the success of the organization.

Another way of looking at scanning was described by Fahey, King, and Narayanan (1981). Their typologies view scanning as irregular, periodic, and continuous. Irregular systems are used on an ad hoc basis and tend to be crisis initiated. These systems are used when an organization needs information for planning assumptions and conducts a scan for that purpose only. Periodic systems are used when the planners periodically update a scan, perhaps in preparation for a new planning cycle. Continuous systems use the active scanning mode of data collection to systematically inform the strategic planning function of the organization. The rationale undergirding active scanning is that potentially relevant data are limited only by your conception of the environment. These data are inherently scattered, vague, and imprecise and come from a host of sources. Since early signals often show up in unexpected places, strategic environmental scanning must be ongoing, fully integrated within the organisation, and sufficiently comprehensive to cover the environments important to your decision makers. According to Wheelen and Hunger (2010) the purpose of strategic environmental scanning is to identify and understand strategic factors, that is, those external and internal elements that will determine the future of the corporation. There are a number of techniques given by scholars through which strategic environmental scanning can be conducted. The simplest and most common way to conduct environmental scanning is through SWOT analysis (Wheelen and Hunger,2010)

2.1.2 Business Environment

The environment in which an organization exists can be described in terms of the opportunities and threats operating in the external environment as well as the strength and weaknesses existing in the internal environment. As written by Gomes (2014) , in business the environment in which an organization exists could be broadly divided into two part; the Internal environment (factors such as its personnel, physical facilities, organization and functional means, which are generally controllable). The external environment (factors such as economic, socio cultural, Government and legal, demographic, geo – physical – by and large beyond the control . Pearce & Richard (2011) defined the environment of a business organization as all elements that exist outside the boundary of the organization and have the potential of affecting all or part of the organization. In their articulation, the environment of an organization can be understood by analyzing its domainwithin external sectors. Harrison (1996) in Erumegbe (2015) views environment as all the conditions, circumstances, and influences surrounding and affecting the development of the total organization or any of its internal systems. For Andrews, Mintzberg and Quinn (1992), the environment of an organization in business is "the pattern of all the external conditions and influences that affect its life and development". The environment comprises several sectors or subdivisions of the external environment that contain similar elements (Morrison 2006). Morrison (2006) and Bedi (2011) visualized the environment of a business in terms of layers beginning with the immediate internal environment within the organization and moving outwards to the external environment surrounding the business and influencing its organization and operation. The Business organization, in the process of transforming their input to output enters into a mutual relationship with its environment. The environment exerts pressure on the business while the business, in turn, influences some aspects of its environment. Thus there is a symbiotic linkage between organizations and their environment .Pearce & Richard (2011) further noted two essential ways the environment influences organizations: firstly, the need for information about the environment followed by the need for resources from the environment. The environmental conditions of complexity and change create a greater need to gather information and respond based on the information. The organization also is concerned with scarce material and financial resources and with the need to ensure availability of resources.

The internal environment consists of factors which influence the firm's activities but are within the firm's control. It refers to all the factors within an organization which imparts strengths or cause weaknesses of a strategic nature These include factors like financial resources, technology, human resources, structures and processes. Gomes (2014) added other factors like value system, mission and objective, management structure and nature, internal power relationship.

Palmer and Bob (2002) posit that external environment comprises all forces and events outside the organization that impinge on its activities. First set of variables emanate from economic, technological, political and socio cultural forces.

The external environment is made up of those factors that affect the operations of the firm but are beyond the control of the firm. It consists of two environments that have interrelated sets of variables important for determining the opportunities, threats, and constraints faced by organizations. These environments are– micro (task) environment and macro (general) environment. (Pearce and Robinson, 2007; Hiriyappa, 2016). Some scholars like Scott and Meyer (1983) classify the external environment into task and general environment . Pearce & Robinson (2011) agree that the external environment presents the greatest challenge to managers. Similarly, Adeoye & Elegunde(2011) opine that the external environment is uncontrollable therefore the firm has to match its operations to it in order to survive.

The Micro environment also known as the task or operating environment consists of the actors in the company's immediate environment, that affect the performance of the company. These include –

Suppliers – those who supply the inputs like raw materials ;

Marketing intermediaries – which are 'firms that aid the company in promoting, selling and distributing its goods to final buyers ;

Competitors – not only other firms of similar products but also all those who compete for the discretionary income of the consumers;

Customers – Business is a create of customer; therefore monitoring the customer sensitivity is a prerequisite for the business success;

Publics – is any group that has an actual or potential interest in or impact on an organization's ability to achieve its interests. Media publics, citizen's action publics and local publics are some examples.

As given by Rao (2009), the Macro environment consists of the larger societal forces that affect all the actors in the company's micro environment – namely:

Demographic – population growth rate, age composition, sex composition, education level, caste and creed, religion etc. All factors which relevant to business.

Economic- economic condition, economic policies and the economic system are the important external factors that constitute the economic environment of a business

Natural – geographical, and ecological factors, such as natural resources endowments, weather and climatic conditions, topographic factors, location aspects in the global context, ort facilities, etc. , are all relevant to business

Technological – the fast changing technologies also create problems for enterprises as they render plants and products obsolete quickly. Product – market – matrix generally has a much shorter life today than in the past. It is particularly so in the international marketing context.

Political – Political and Government environment has close relationship with the economic system and economic policy. For example, the communist countries had a centrally planned economic system. In most countries, apart from those laws that control investment and related matters, there are a number of laws which regulate the conduct of business. These laws cover such matters as standards of product, packaging, promotions etc.

Socio – Cultural: socio – cultural fabric is an important environmental factor that should be analyzed while formulating the business strategies. The cost of ignoring the customs, traditions, taboos, tastes and preferences etc. of a people could be very high. The buying and consumption habits of the people, their languages, beliefs, and values, customs and traditions, tastes and performances, education are all factors that affect business. Mega environment mainly consist of International Environment which involves export and import dependencies.

2.1.3 Scope of Strategic Environmental Scanning; the External Environment

The external environment of an organization is the environment that poses greater problem for an organization (Wheelen and Hunger, 2011). This environment is made up of the task environment which has a direct impact on the organization and a general environment which has an indirect impact on the organization (Carpenter and Sander 2009, Dill 1958; Myburgh 2004). The external business environment is made up of extraneous variables or factors which are outside the control of the organizational management and cannot be manipulated such as technology, politics, and government legislation. In addition are economic, socio-cultural and physical factors. Daft etal (1988) opined that the task environment is characterized by uncertainty because it is believed that the task environment which is connected with the short-run is somewhat more volatile than the general environment that is connected with the long-run and the environmental uncertainty arises from the organization's inability to predict its environment (Oluremi and Gbenga (2011) .

Specifically, the task environment, commonly includes customers, resources (suppliers and investors), and competitors, while the remote or general environment consists of six sectors; the political, economic, social-cultural, technological, natural environmental and legal sectors. Task environment is organization-specific, that is, each organization operates in its unique task environment. However, companies operating in the same industry domain may have similar task environment, if they choose the same target market or the same group of suppliers; at the same time, they would become part of the task environment for each other as one of the competitors. Within thesame geographic region, the remote environment is likely to remain unchanged for various kindsof industries; however, different organizations may have different emphasis towards the sixgroups of forces, while a food and beverage manufacturer may pay more attention to the social environment so as to know how consumers may react to his products, a cell phone manufacturer would like to pay more attention a trading house exporting goods to a politically volatile country would collect more information about political and economic stability. However, it may be dangerous for an organization to focus on one sector of the general environment as this may have negative consequences on their performance.

Strategic environmental scanning activity is carried out by organizations so as to derive strategic understanding of the external environment. Organizations scan the environment in order to get a strategic understanding of external influences, so that they may be able to develop effective responses that secures or adjusts their position in the future. The rapid changes in the marketplace create the need for organizations to monitor their environment, gain understanding of how their performance is affected by the environment. Information gathered from strategic environmental scanning helps an organization to make strategic decisions thus, focusing attention on future impacts of the organization.

There are many ways through which the external environment may affect an organization. These can be from social, political, technological, economic, legal and international forces. As much as the external environment contains resources and opportunities for the organization, it can also hinder their performance (Muyiwa, 2015). Pressure from each of these sectors can negatively affect an organization resulting in poor performance. As maintained by Choo (2010) the industry's environment is the most significant with focus on customers, suppliers and competitors and their intricate relationships. Thus, the improved performance of the firm can be determined by how the external environment is understood and monitored in order to make necessary adjustments to these influences. Strategic environmental scanning therefore helps an organization maintain and even improve its value in the face of adversity.

2.1.4 Organisational Strategy

Strategic environmental scanning has been regarded as the first stage in the process of associating theorganization's strategy with the environment. (Hambrick. 1993; Parks, 1998; Beal,2000) Strategies guide not only in defining long term goals but also how those goals will be attained. It is also crucially concerned with how the organization positions itself with regard to the environment and in particular to its competitors. Failureto have a strategy consistent with organizational goals and environment can be costly to the organization. Tregoe and Zimmerman,(1980) define strategy as the framework which guides those choices that determine the nature and direction of an organization. This ultimately implies selecting the products to offer and in which market to offer it. Having a clear and focused strategy is critically important to the success of a business, and without

a well-defined strategy, businesses will tend to stall or even fail. Strategy is concerned with the long-term direction and scope of an organization.(Faulkner and Johnson,1992).

Before strategy formulation, in any organization, there is need to conduct a strategic environmental scan of the external environment to identify the possible opportunities and threats and its internal environment for strength and weaknesses. To thrive in an ever changing environment, businesses need to spend time looking and listening to the changes that are happening in their environment and continue to adjust their strategies. Strategies direct the energy of organization and resources in a unifying manner towards a common purpose.(Alabi, Abubakar and Salisu, 2012). A strategy of an organization forms a master plan that states the necessary actions to be taken toward achieving organizational objectives. It maximizes competitive advantage and minimizes competitive disadvantage (Wheelen and Hunger, 2015). Economic organizations formulate three types of strategy: corporate, business and functional. While corporate strategy describes a company's overall direction, business strategy emphasizes improvement of the competitive position of a company's product and functional strategy functional strategy deal with a relatively restricted plan that provides objectives for a specific function, allocation of resources among different operations within that functional area and coordination between them for optimal contribution to the achievement of business level and corporate level objectives.

2.1.5 Corporate Strategy

Corporate strategies address the entire strategic scope of the enterprise. It creates the big picture view of the organization and includes deciding in which product or service markets to compete and in which geographic regions to operate. The term "corporate strategy" is a ubiquitous term used both in academic and business practitioner's literature. Basically, from the literature of corporate strategy, two main conceptual approaches to corporate strategies can be identified. The first is a view of corporate strategy as all strategy formulated within the organization. Secondly, corporate strategy can be viewed as only the strategies formulated at the top management level of an organization. From the first view as stated above, corporate strategy encompasses all of the strategies formulated and implemented by a firm. (Ambrosun and Bowman, 2003, Justner and Peck 1998; Dragon and Knight 2001; Wheelen and Hunger, 2010). Within this context, corporate strategy includes all strategies formulated at the corporate, business and functional levels of a firm.

It explains the patternof decisions in a company that determines and reveals its objectives, purposes, or goals, produces the principal policies and plans for achieving those goals, and defines the range of business the company is to pursue, the kind of economic and human organization it is or intends to be, and the nature of the economic and non-economic contribution it intends to make to its shareholders, employees, customers, and communities.(Andrews 1980). Corporate strategy is about how organization deploys the available resources to achieve their goals anchored around profitability (net profits) efficiency (low cost),Growth(increase in total assets, shareholder wealth, utilization of resources, reputation , contributions to employees(employment security, wages, diversity), contributions to society (taxes paid, participation in charities, providing a needed product or service) market leadership (market share) technological leadership (innovations, creativity) survival (avoiding bankruptcy) (Johnson, Scholes and Whittington, 2008). These result in superior organizational performance. Corporate strategy therefore defines the market and the business in which an organization chooses to operate. Questions related to corporate strategy include: What is the current strategy, implicit or explicit? What assumptions have to hold for the current strategy to be viable? What is happening in the larger, environments? What are our growth, size, and profitability goals? In which markets will we compete? In which businesses? In which geographic areas? (Hills, C 2005). Bradford (2004) suggests that corporate strategy isn't a one-time event. It's a continuous process. This implies that strategies shouldn’t be cast on a stone, it should be appropriately validated when external forces change or outside feedback is obtained that challenges key assumptions. When corporate strategy is viewed as strategies formulated within the top management level alone, it presents the concept as a component of a strategic hierarchy employing a distinction between the three levels of strategies (Ansoff ,1965). Beard and Dess (1981) & Campbell and Faulkwu (2003) conceptualize different levels of organizational strategies as corporate level strategy, Business level strategy and functional level strategy.

Strategic environmental scanning guides an organization towards proper formulation of corporate strategies. Functional strategy is the approach taken by a functional area to achieve corporate and business unit objectives and strategies by maximizing resource productivity. Johnson and Scholes (1999) define operational strategies as those concerned with how the component parts of the organization in terms of resources, processes, people

and their skills effectively deliver the corporate and business direction. Corporate strategy concerns selection of products, markets and industries and allocating resources among them. (Evans & Shulman 1992; Grant 2002; Campbell & Faulkner 2003). Similarly, Thompson (2001) defined corporate strategy as the management of a firm's portfolio through the management of synergies across the firms businesses. This is in line also with the articulations of Dess et al (1995) who view the concept in terms of specific corporate strategies such as restructuring, acquisitions, mergers, divestment and diversification. Corporate strategies here answer the questions; what are the strategic directions of our firm? (Baloch& Inam 2014). Thus through strategic environmental scanning, an organization can be guided to match their strategies to suit the changes in the environment.

2.1.6 Strategic Decisions of an organization

The purpose of strategic environmental scanning is to aid strategic decisions. Wheelen and Hunger (2006) defined environmental scanning as the process by which organizations monitor the relevant environment to identify opportunities and threats affecting their business for the purpose of taking strategic decisions. Strategic Decisions are concerned with decisions about an organization's future and the way in which it needs to respond to the many pressures and influences. In turn, the consideration of future strategies must be mindful of the realities of translating strategy into action which, in turn, can be significant constraints on strategic choice. This involves decisions that boarder around the following areas as postulated by Johnson et al (2008)

The decisions as to how an organisation positions itself in relation to competitors. This is a matter of deciding the overall basis of how to compete in a market. For example, if the aim is to pursue a strategy that provides lasting superior financial performance, is this to be achieved by competitive advantage on the basis of price or differentiation? Or is competitive advantage possible through being more flexible than competitors? Or is a more cooperative approach to competitors appropriate?

The choices of products and markets for an organization; Should the organization be very focused on just a few products and markets? Or should it be much broader in scope, perhaps very diversified in terms of both products (or services) and markets? The choices about how strategies are to be pursued; How are these choices to be evaluated? What are the criteria that might be used and the tools that are useful for this?

2.1.7 Strategic Thinking and Strategic Environmental Scanning

Strategies that were very effective at one time and may not likely remain effective over a period of time. It poses a challenge on managers to analyze their firms competitive landscape, position their firm within the industry they operate and then identify and select the most successful ways of competing in that industry. They must think strategically so as to develop the best strategies and also to secure the necessary resources needed to implement their strategies.

Some major changes like technological changes, changes in tastes and preferences of consumers in the environment greatly impacts on the performance of the selected brewery firms of this study. Technologies are rapidly changing all the time. It affects the way products are produced and offered to customers. Technology is also capable of changing the nature of work in the industry thus having an impact on the profit of the organization(Irene et al, 2012). The emergence of new technologies may impact on the organizations overall business and production processes. This is because fast changing technologies create problems for organizations.

Through strategic environmental scanning, surprise that accompany such changes can be reduced for organizations by monitoring the changes in technologies especially as they affect existing infrastructures, business efficiencies, changes in production and rise of new products or services.As managers think strategically, they develop strategies which will reflect in their technology so as to make the best choices that will minimize cost and maximize gain. Technology allows managers to develop new products that consumers cannot do without.

Making strategic decisions is therefore the key to an organization's success. Strategic decisions have the potential to change the purpose and direction of an organization. As much as they shape and define a business organization, they also have the potential to affect the bottom-line financial health of a business and even the survival of the organization.

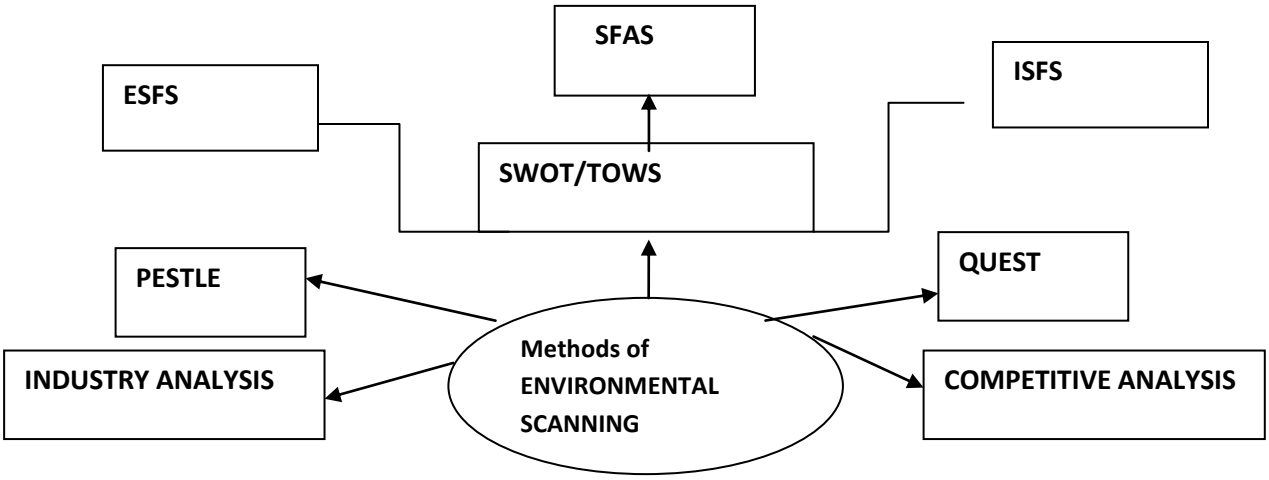


Fig 2.1 Methods of Environmental Scanning
Source; Researcher, 2016

Amarsy (2015) developed a tool for environmental scanning using current data gathered from assessing the nature of changes in the business environment of different nations. Four key areas in the model include market forces, key trends, industry forces and macro-economic trends. This is designed to help organizations scan their environment on daily basis for disruptive threats and opportunities. Wheelen and Hunger (2000) noted that there are studies that have identified a positive relationship between environmental scanning and profit

2.1.8 Methods of Environmental Scanning

SWOT (Strength-Weakness-Opportunity-Threats)

A SWOT analysis is often used, as a strategic tool to allow a presentation of the firm's resources and capabilities, which can be further, developed to aid competitive advantage. A SWOT analysis therefore underpins the development of future strategic options. SWOT is an acronym used to describe strategic factors specific to a company in terms of Strengths, Weaknesses, Opportunities, and Threats. SWOT analysis originated from the research conducted at Stantford Research Institutein 1960.Some scholars like Barney (1991) and Teece (2009) maintain that a desirable competitive advantage is one obtained through a minimization of threats aligned with the seizing of opportunities. SWOT, is an instrumental framework in value based management and strategy formulation to give in-depth information to strength, weakness, opportunity and threats for a particular company / organization. What makes SWOT particularly powerful is that, it can help organizations uncover opportunities that they are well-placed to exploit. And by understanding their

weaknesses, they can manage and eliminate the dangers that would have caught them unawares.SWOT underpins the development of future strategic options and it's used to review the micro environment of the firm reflecting specifically upon the strengths and weaknesses and the opportunities and threats the firm must respond to through an alignment of firm strengths to such forces. Kazmi (2008) articulated that the environment of a firm can be described in terms of their strength and weakness in their internal environment and also the opportunities and threat in their external environment. SWOT is also known as WOTS-UP or TOWS analysis. SWOT is considered the simplest technique of environmental scanning. (Kazmi, 2008) However, organizations need to be conscious of its pitfalls while adopting the technique. Simplicity of use of SWOT may turn to be simplistic by trivializing the reality that may be more complex than represented in SWOT matrices.(Kazmi 2008)

Strength and Weakness(SW): This is an internal analysis of an organization. Strengths are areas within which an organization can gain a strategic advantage(Kazmi 2008). Some of the areas as outlined by Kazmi (2008) include good reputation among customers, resources, assets, people, experience, knowledge, data and capabilities.Weaknessesare constraints or limitations that create strategic disadvantage for the organization. Such areas according to Kazmi(2008) include gaps in capabilities, financial deadlines, low morale and overdependence on a single product line

Opportunity and Threats (OT) these have to do with the firm's external environment. Opportunity can be a favorable condition in the organizations environment which enables it to consolidate and strengthen its position (Kazmi, 2008). Examples of opportunities as given by Kazmi(2008) include economic boom, favorable global influences and unfulfilled customer needs. Threats as opposed to opportunity are conditions within the organisation's environment which can cause problems for the organization. These include economic downturn, demographic shifts, new competitors, unexpected shifts in consumer tastes, demanding new technologies, new technologies, loss of key staff, unfavorablelegislation.

2.1.8a Application of SWOT Analysis for the Food and Beverage Industry

Table 2.1 SWOT analysis for Cadbury Nigeria Plc

Strength	Weaknesses
Strong position in the chocolate powdered beverage market Technical Support from Cadbury UkPlc and Mondelez International Local sourcing of all cocoa requirements Competitive advantage through its cocoa processing plant in Ondo	Inability to fully pass on raw material price increase to consumers History of weak corporate governance and misstatement of financial reports
Opportunities	Threats
Favorable demography-a population of 170mn with median age of 18 years Rising middle class income earners and urbanization rate Well-positioned to increase capacity utilization given increasing demand	Decelerating growth in consumer spending Stiff competition in the market Instability of exchange rates Currency risks and increasing prices of raw materials in the international market Huge importation in the candy segment to stifle growth for local producers Persistent security threat in Northern part of Nigeria

Source; Adapted from Cadbury Plc Annual Report, 2016

Table 2.2 SWOT analysis for Nestle Nigeria Plc

Strength	**Weaknesses**
Well positioned to take block off adulteration through continuous product differentiation, proper packaging and metallic security seals. It has, in conjunction with its parent company, Nestle, a variety of products that can be introduced for the local consumer. strong commitment to corporate social responsibility	Inability to fully pass on raw material price increase to consumers
Opportunities	**Threat**
Favorable demography-a population of 170mn with median age of 18 years Rising middle class income earners and urbanization rate Backwards integration to gain more control over the supply chain of the firm.	*Faces competitive risk from Cadbury and other imported brands. *Exchange rate instability- variability in raw material prices influencing the firm's ability to sustain prices in light of a commitment to wider responsibilities aside from profit i.e. CSR initiatives *Increased dynamism in the external macro environment fuelling short-term decision making and heightened competition *Technological change driving both innovation andassociated challenges.

. Source (Field study, 2016)

The SWOT analysis of the firms revealed some similarities in their threat. One of the core threats is the increasingly competitive nature of the industry and the challenges, which arise from this level of competition. As a result, a great threat facing the firm is the level of dynamism and turbulence to contend with which influences the nature and direction of strategic choices.

Table 2.3 Application of SWOT analysis for Guinness Nigeria Plc

Strengths Well established and diverse brands Qualified management staff Strong support from parent company-Diaego Dominant leader in the stout market Good cash flow	Weaknesses Inadequate working capital Declining profitability that requires improvement
Opportunities Favorable demography-a population of 170mn with median age of 18 years Rising middle class income earners and urbanization rate Well-positioned to increase capacity utilization given increasing demand	Threats Weak operating environment Higher raw material cost as a result of devaluation of the local currency Stiff competition for products in the value segment Lower consumer's effective disposable income High rate of taxation

Source ; Augosto.Co Report, 2016

TOWS Matrix

This is an alternative strategy generated from SWOT. It shows how an organization can organization can use match external opportunities and threat facing it with its internal strength which will result in four sets of possible strategic alternative.

Internal Factors Analysis (IFAS) and External Factors Analysis

IFAS is an acronym for Internal Factor Analysis Summary. This is a technique used to summarize the result obtained from the internal analysis of an organization for strategic factors. IFAS can be used to assess how an organization's management perceives each strategic factor as important.

EFAS, an acronym for external factors analysis is a technique used to organize the external result of the external factor analysis conducted by an organization. EFA helps to

create a view (quick view) of how an organisation's management perceive each of the factors as important.

Strategic Factors Analysis Summary(SFAS)

This is a summary of the organizations external and internal strategic factors.

PESTLE or STEEP analysis

A PESTLE analysis is used as a strategic tool to measure industry dynamics through recognition of the core political, economic, social, technological, legal and environmental forces/changes having influence on the industry (Henry, 2007, p.23). This information is then used to form a critical discussion for the future strategic options available to the firm. However, PESTLE has some advantages as well as disadvantages. Some of its advantages include; Simple framework; Facilitates an understanding of the wider business environment; Encourages the development of external and strategic thinking; Can enable an organisation to anticipate future business threats and take action to avoid or minimise their impact; Can enable an organisation to spot business opportunities and exploit them fully; Avoids taking action that is doomed to failure from the outset, for reasons beyond your control.

Some of its disadvantages include; Some users over simplify the amount of data used for decisions ; To be effective this process needs to be undertaken on a regular basis ; The best reviews require different people being involved each having a different perspective ; Access to quality external data sources, this can be time consuming and costly ; The pace of change makes it increasingly difficult to anticipate developments that may affect an organisation in the future; The risk of capturing too much data is that it may make it difficult to see the wood for the trees and lead to 'paralysis by analysis'; The data used in the analysis may be based on assumptions that subsequently prove to be unfounded (good and bad).

The PESTLE analysis below identifies a number of forces, which have an influence on Food and Beverage industry dynamics. As firms in the same industry, same kind of forces can emanate from their environment. Below is a view of the possible PESTLE analysis of the industry.

2.1.8b Application of Pestle Analysis for the Food and Beverage industry

Table 2.4 PESTLE analysis for the Food and Beverage industry

The PESTLE analysis below identifies a number of forces, which may have an influence on the Food and Beverage industry dynamics..

Political Changing regulation surrounding food standards and marketing actions. Government stability in new emerging economies – question of risk as part of the internationalization process Changing global regulations – standardised practice yet adaptation to different political forces	Economic Awareness and knowledge of changing inflation, economic growth rates and income levels. Changing consumer budgets, rise of the cost conscious consumer. Rising price of raw material goods in relation to the need to source from sustainable suppliers
Social Changing consumer attitudes – move towards healthier products in line with government initiative. supporting balanced diets and the dangers of sugar. Changing lifestyle – return back to home cooking and the promotion of family time in a world of convenience. The need to adapt to different cultural settings i.e. language, religious beliefs and family settings. Understanding of consumer behaviour is crucial to ensuring a personal approach to marketing. Consumers viewing the firm as an agency for power in the wider external environment (Eisenhardt et al, 2010: 1263).	Technological Rise of social media, consumers interacting with firms and being able to do so across a range of platforms. Innovation fuelled by technological developments. E-commerce as a platform for development Legal 1.Changing nature of regulation. 2. Need to adhere to global regulations and changes across different international markets

Source: field research 2016

Industry Analysis

This means examining important section of task environment. Porter (1999) outlined six forces whose collective strength can determine the ultimate profit potential using those six forces as a yard stick to measure the organization's success and failure

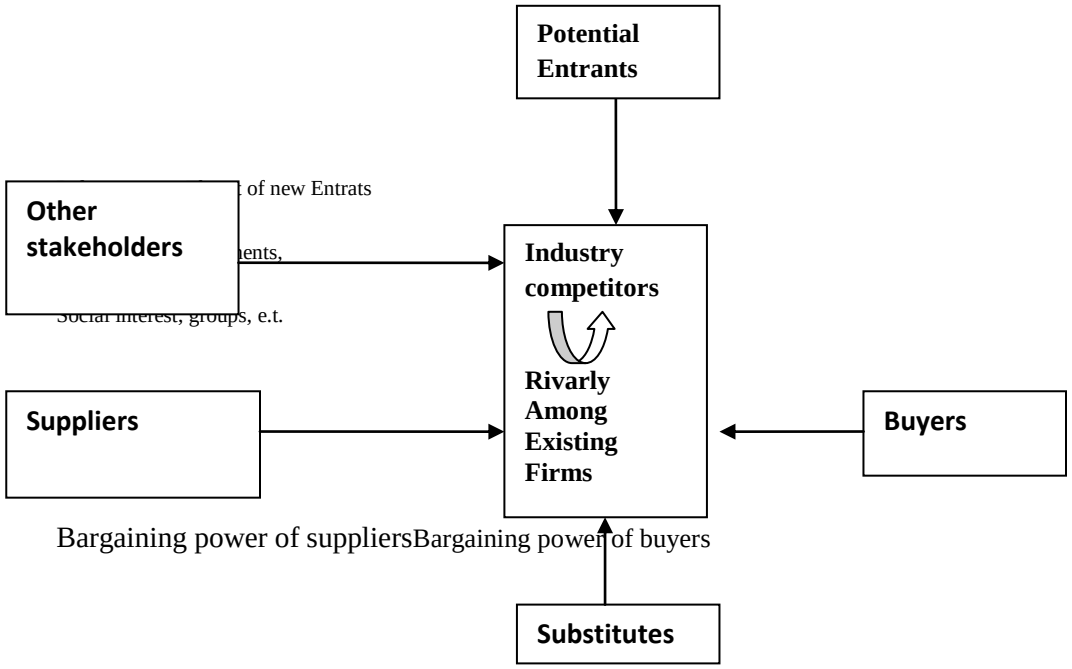


Fig 2.2 Porters Five Forces Model for industry analysis and business strategy

Source: Wheelen and Hunger (2008) Strategic Management and Business Policy: Achieving sustainability, Twelfth Edition. Pg 158

Threat of new entrants; there is a high degree of this threat in the food and beverage industry. This is so because the industry is very large and competitive. This can be seen from the number of food and beverage companies in the country. It is so because there is available market with high potential buyers and more because food and drink are needed for survival and happiness. This creates stiff competition in the industry with all companies struggling to gain the market.

Bargaining Power of Supplier

The supplier environment is very important to Food and Beverage firms. To remain competitive, managers of Food and Beverage firms must maintain positive relationship

with their suppliers. Most suppliers of the Food and Beverage firms will certainly offer the same kind of product since they are mostly agricultural products,firms should strive to have a higher bargaining power than their suppliers. Moreso, maintaining a good relationship with suppliers will help the food and beverage managers ensure the right quality of raw material is being purchased.

Threat of Substitutes

The nature of food and beverage industry makes it susceptible to threat of close substitutes especially imported goods such as confectionaries, frozen foods, ice cream, biscuits and the likes. It is therefore very important that mangers continuously generate new growth avenues through which the company can grow in the future.

Intensity of Rivalry among Competitors

A lot of companies in the Food and Beverage industry are in continuous struggle to outperform the other. Rivalry is very high in the Food and Beverage industry. Manufacturers of Food and Beverage need to adhere to consumer wants and need so as not to lose patronage to other substitutes.

The fierce competition in the Food and Beverage industry can have an adverse effect on the performance of firms. Through strategic environmental scanning, Food and Beverage firms can gain insights needed to create a competitive advantage. Environmental scanning will also aid strategic intelligence to increase the quality of strategic decisions made when deciding on how to compete against their rivals.

2.1.9 Internal Scanning: Strategic Directions of Organizations

Strategic direction of a firm means a course of actions that helps an organization achieve its futuristic goals so as to secure the future of the organization. One of the major goals of an organization is to achieve sustainable performance and continue to remain competitive in business in the long run. To achieve this, management of organizations must follow a set of managerial decisions and actions that determines the long run performance of the organization (Wheelen and Hunger, 2008) this involves a strategic environmental scanning of the organisation’s environment so as to identify strategic factors that will determine the future of the organization. The simplest way to achieve this is by carrying

out a careful examination of the functional areas of management in an organization so as to understand the potential strengths and weaknesses of the organization. Such functional areas include finance, marketing, human resources, research and development, operations and information systems and technology. In scanning these areas, the origination seeks to acquire knowledge of some analytical concepts in each area. When this is efficiently harnessed, it can be a source of strength to the organization. They will now be able to successfully undertake value added activities and gain a strategic direction.

Strategic Finance Perspective

To ensure successful performance, every member of the organization must understand the organization's financial objectives, strategies, progrmmes and policies. The financial manager needs to ensure the fitness of the finance objectives and the organization's mission, objectives, strategies, policies, internal and external environment. In doing this, the financial manager must also scan to know the best sources, uses and control of funds. The financial department is a very vital area of the organization because virtually all strategic issues have financial implication. The organization's overall corporate strategy must be in tandem with all the important financial scanning activities such as monitoring the flow of fund into the organization, monitoring the organization's involvement in international activities, monitoring the organization's international activities, monitoring the fluctuations of currency to prevent any adverse effect on profit and all other activities that concern raising of fund and return of benefits to outside sources of financing. For the purpose of strategic decision making, a good finance department should prepare a capital budget that will analyze and rank possible investment in fixed assets

Strategic Marketing Perspective

For an organization to grow healthily, it must ascertain how well the corporation is performing in terms of analysis of market position and marketing mix (i.e. product, place, price and promotion. The marketing manger must be very concerned about how dependent the organization is on a few customer or more. He acts as a link between the customer and the competition. Some important strategic areas in marketing which an organization must pay attention include:Current products in the product life cycle. In considering this, the marketing manager assesses the organization to know if they make use of effective techniques to evaluate and improve product, market position and marketing mix. Another

important strategic area in marketing is the overall reputation of the company and its brand.

Strategic Human Resources Perspectives

Human resources are a very vital asset of an organization in goal attainment. An organization must extremely consider the kind of staff,their qualifications and skills that will help the organization achieve its goal. The human resources manager must ensure that a good fit exists between the employees and the job. A well done employee selection, appraisal, training and development helps an organization attain its goals in other words human resources can be a source of strength to an organization. In other to achieve this, a human resource manager must consider the job analysis program, performance appraisal system, up to date description, training and development, programmers attitude surveys, job design programmed, quality of relationships with union and use of work teams. Also, the human resource manager must be knowledgeable enough to improve the organization's quality of life by introducing innovative reward systems and improving the work environment. This will positively impact on the culture of the organization (make it more participative) which will lead to a higher productivity and quality product.

Strategic operations Perspective

Wheelen and Hunger (2008) describes the primary task of the operations managers as that which concerns developing and operating a system that aims at providing the required number of products or service. Different operational areas exist in a product or service oriented organization. A product oriented organization needs to consider plant facilities, type of manufacturing system (mass production e.t.c), age and type of equipment, availability of transportation e.t.c. a service oriented organization should consider service facilities, type of operations systems, age and type of supporting equipment. The operation manger needs to ascertain the type and extent of operations capabilities the organizations has, check the international and domestic activites of the firm, examine how the suppliers and distributors are operating and how much they are being affected by the environment. The operatiosn manger must also understand which products of the organusation have the highest andlowest profit margins.

Strategic Research and Development (R&D) Perspective

Research and Development is very important to organizations operating in a dynamic environment. An organization needs to consider the following important R& D strategic issues: technological competence; technology transfer; R&D inventory(the spending of R&D as a percentage of sales revenue.)

Strategic information Systems / Technology Perspective

A good information system is a major strength of anorganization. For organizations to remain competitive in this information age, R&D manager must design and manage the flow of information in a way that will improve productivity and decision making. Information systems impact positively on the performance of organization. Important back office process such as pay rolls, human resource records, account payable and receivable, individual tasks, like keeping tracks of client and expenses can be made more efficient through proper information systems. An organization can also gain competitive advantage by using internet for marketing,web2.0(use of Wiki, blogs, social networks e.g my space ,facebook. An effective information system aids environmental scanning as information gathered from scanning activity can only be useful if collected, stored and synthesized in such a way that will aid strategic decisions.

2.1.10 Strategic Environmental Appraisal of the Food and Beverage Industry

People of all ages, from young to old as well as all income class are users of food and beverages. The nature of the products of this industry creates so much competition and uncertainties in their operating environment which impacts on the performance of food and beverage firms. Success of Food and Beverage firm lies in the ability of management to identify and respond to environmental changes on time. Managers need to scan the environment to understand external strategic issues and factors that determine the future of the organization. Through consistent monitoring of external influences, organizations can shape their own internal processes to reflect necessary and effective response. Strategic environmental scanning therefore offers a process by which the value of an organization can be maintained or enhanced even in the face of adversarial challenges. This is practically not as easy as it sounds for Food and Beverage firms. This is because no firm can successfully monitor all external factors. Choices must therefore be made regarding

which factors are important to the organization's performance and goal attainment. Strategic environmental scanning of the general and task environment will help managers to make appropriate choices and not choices made by mere personal values and experiences. To help Food and Beverage firms achieve this, this study has empirically examined the variables in the external environment so as to identify those that have impact on the performance of Food and Beverage firms using both panel and cross sectional data from the industry.

The Food and Beverage industry in Nigeria is one of the industries that contribute greatly to the economy. It is an industry laced with potentials given the size of thecountry's population of over 180million people. However, low capacity utilization, competitionfrom foreign imports, erratic power supply and poor water supply has plagued the industry inrecent times. The drop in the price of Brent crude oil has constituted a major setback for Nigeria who relies heavily on oil for its revenue for up to 90 percent of its total revenue. To augment the revenue following the continued slide in the oil price due to various factors, including glut in the market by OPEC countries, low demand of the product in international market and oil boom in China and US, two heavy buyers, government resorted to increase in tax. This increase has endangered the performance of Food and Beverage firms as they now face a drastic increase in their production cost. This situation took many of the manufacturers of Food and Beverage firms by surprise, thus making them to respond to that change in the environment with certain measures such as cutting jobs and raising prices of goods in order to remain in business.

Again, manufacturers of Food and Beverage fear that by charging higher prices for products, resulting from higher production costs, the demand by consumers for goods could fall in the market. And once demand falls in the face of a huge cost burden, the manufacturer is likely to seek ways of cutting costs and the immediate one is reduction in the number of workers and cut in marketing budgets. Food and beverage products like biscuits, confectionery, water and carbonated drinks are basic food items that are within the reach of the masses of this country. They are considered to be easy source of immediate energy and are nutritiously enriched with quick source of vitamin for the teeming population thus food security cannot be achieved without the Food and Beverage products. Any increase in the prices of these products production processes will therefore be a direct increase in the cost of these products which are easily affordable; this would

spiral inflation with consequent hardship for the average Nigerian thereby further diminishing the quality of life. More so, Food and Beverages are fast moving consumer goods and as such are the determinants of inflation to a common man, so increases in their prices drive a higher consumer index. In the same vein, increase in prices of easily affordable food products in the face of seriously depleted disposable income will elicit resistance to the products by consumers and therefore lead to reduced capacity of the manufacturers. This in turn will lead to loss of jobs in industries and loss of revenue to government. Among the environmental factors that threaten the performance of food and beverage firms are taxation, exchange rate, Poor road networks, weak telecommunications and lack of a viable railways system has also contributed to costs of input. Dearth of raw materials input and obsolete processes and machinery are other examples of challenges facing the industry.The industry is still very viable as seen by the recent foreign investments in some companies in the sector. The main driver for change and continued profitability will be infrastructural development and advances in production methods.

2.1.11 Strategic Environmental Scanning and Performance of Food and Beverage Firms

Performance is a multidimensional concept. The success or failure of an organization can be accessed only by performance measures. According to Saylor(2002) Organizational performance refers to how well an organization is doing to reach its vision, mission, and goals. Niven (2002) opines that organizations can ensure maximum effectiveness by aligning their performance evaluation methods with their overall strategic plans and goals. Performance is the level to which an organization fulfils its goals in terms of cost, quality, flexibility, speed and dependability. Food and Beverage firms can figure out the strategic changes to make by finding out how their organization is performing in terms of their organizational goals.

Two important considerations of performance as popularized by sayer (2002) are performance measures and performance referents. Performance measure is a metric along which an organization can be accessed in terms of goal attainment. Tailab (2014) identifies two kinds of performance measurements to include: Financial Performance and Nonfinancialperformance. Financial measures include profitability measures, leverage measures and debt to equity ratio. Non-financial measures are related to operations

performance which identifies cost, flexibility, quality, dependability, and speed as critical manufacturing competitive priorities (Vickery et al. 1997; Slack et al. 2004). Quality in a business is facilitated by strategic quality planning which includesvision, mission, and values of the firms. Successful strategic quality planning efforts impacts positively on different aspects of the organization like the reputation, wealth creation and social responsibility of the firm. Managers seek to improve the quality of their organisation's output so as to serve their customers better and win their confidence.

Performance referents are bench marks used to make sense of an organisation's standing along a performance measure. This accesses an organization in relation to the overall performance of the industry in which an organization belongs. As popularized by Barthel (2016), the first step to evaluate performance is to identify the measures that properly align with the company's strategic plans. Some tools which can be used to compare performance to the goals of an organizations are the balanced score card and the triple bottom line.

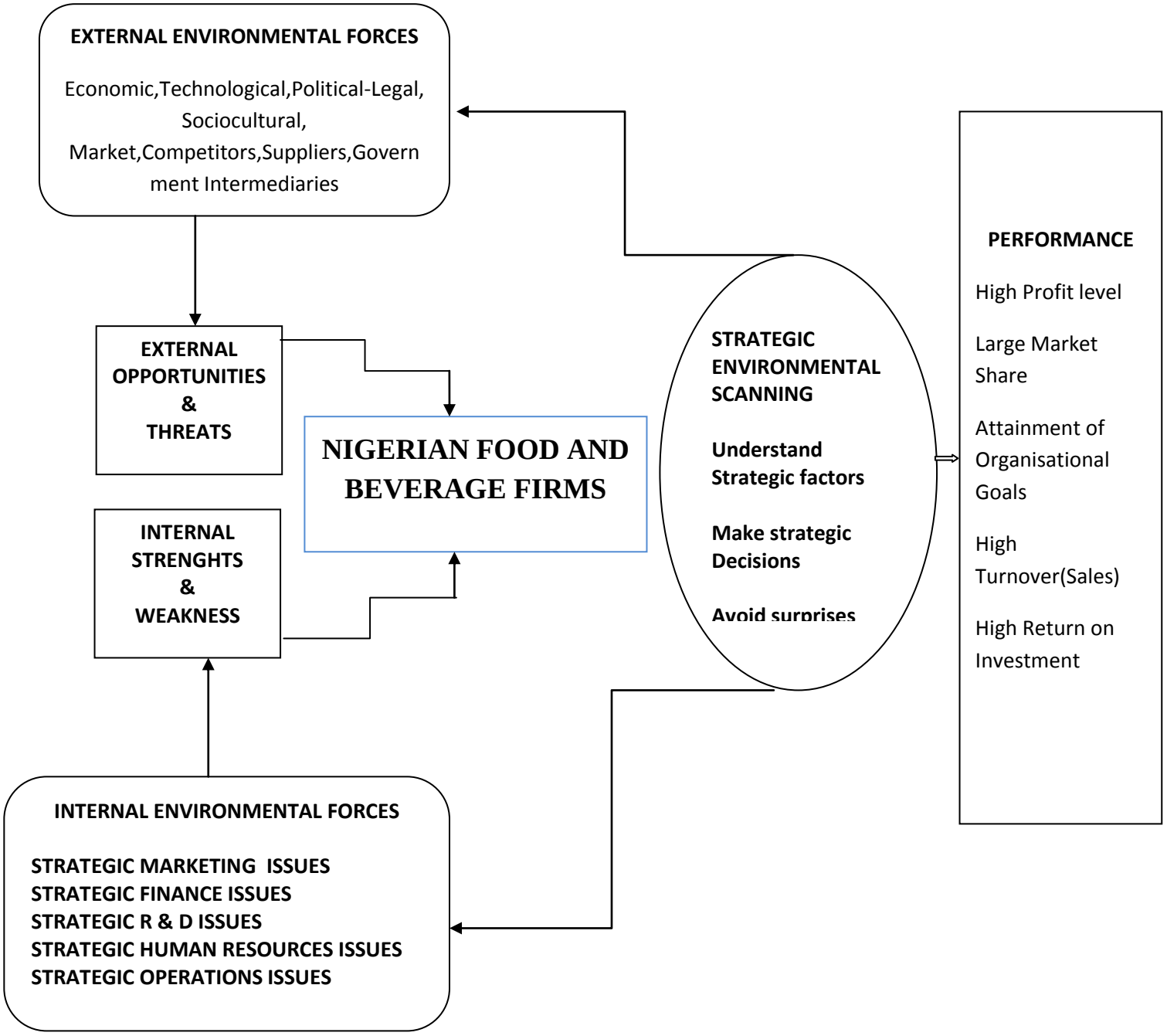
The balanced score card was developed by Robert Kaplan and David Norton of Harvard University (Wheelen and Hunger, 2010). The framework was borne out of a need for a framework that will provide a balance between financial measures and non financial measures which are also important for understanding organizational activities that lead to sustained and long-term performance. To achieve this therefore, the balanced score card evaluates performance from financial perspective, customer perspective, internal business perspective and learning and growth perspective.The triple bottom line which was introduced in the 80's provides another tool to help executives focus on performance targets beyond profits alone; this approach stresses the importance of social and environmental outcomes. It emphasizes social concerns, environmental concerns and economic concerns of the organization.

The major common goal of Food and Beverage firms is profit maximization. Owing to the nature of the industry, performance evaluation is commonly best done using profitability measures. In the view of Omondi and Muturi (2013), profitability can be used as a proxy for financial performance for the Food and Beverage firms. This assesses the organization based on profit after tax, market share, turnover on sales, current assets, fixed assets, investment. This is so because Food and Beverage firms operate in a highly competitive as

well as changing environment which makes their profit margin very important as it reveals their ability to whether the storms of the ever changing environment. Food and Beverage firms also build their goals around employee commitment, job satisfaction, capacity building, manpower development, employee welfare, wealth creation, reputation of the company and employee diversity. Goal attainment of the Food and Beverage firm can be influenced by factors in the environment in which they operate.

Fig 2.3 below presents a framework of strategic environmental scanning and performance of Food and Beverage firms. As the framework shows, Food and Beverage firms are faced with environmental uncertainties due to forces from the environment. External forces beyond the control of the firms arise from economic, technological, political-legal, socio-cultural, market, competitor, supplier, and government intermediaries environments. Similarly, internal forces arise from strategic marketing issues, strategic financial issues, strategic Research and Development issues, operations issues as well as technological issues but are controllable by the firm. While external forces present the organization with either opportunities or threats, internal forces present strength or weakness to the firm. In the light of these, strategic environmental scanning can help an organization form a strategicposition from which it can addressexternal forces over which it has no control. Through consistent monitoring of the environment, it can shape its own internal processes and make strategic decisions that so as to secure the future of the firm to ensure successful performance.

Framework of Strategic Environmental Scanning and performance of Food and Beverage Firms



Source: Researcher 2016

Fig 2.3 Framework of Strategic Environmental Scanning and performance of Food and Beverage Firms

2.1.12 Overview of the Nigerian Food and Beverage Industry

The Food and Beverage industry is largely dominated by international companies who control about 85% of the market while the remaining 15 % is controlled by indigenous companies. Over the past few years, the Nigerian Food and Beverage industry has maintained a leading position in the contribution to household expenditure (Business Monitor International, 2015). According to the National Bureau of Statistics (NBS), Nigerian Food and Beverage industry is the largest contributor to the manufacturing sector accounting for 60% of the manufacturing sector's output between 2010 and 2014. BMI(2014) also reported that Compound Annual Growth Rate (CAGR) of household expenditure grew at 15.3% to N63.52tn in 2014 from N41.44 tn in 2010. This growth was said to have been driven largely by Nigeria's middle class income earners, rising population, urbanization and favorable demography. However, this performance has been on the decline which is blamed on unfavorable operating environment such as inflation caused by the fuel price hike, insecurity challenges in some part of the country, and the recent fall in crude oil price. Nonetheless, BMI forcasted a 3 year CAGR of 10% in food and beverage spending to N33.34tn in 2018E from N24tn in 2015. The industry is expected to record positive growth on account of the viability of the sector expected to be driven by favorable demography, increased spending. Fig 2.4 shows a summary of consumer spending on food and beverage products in Nigeria

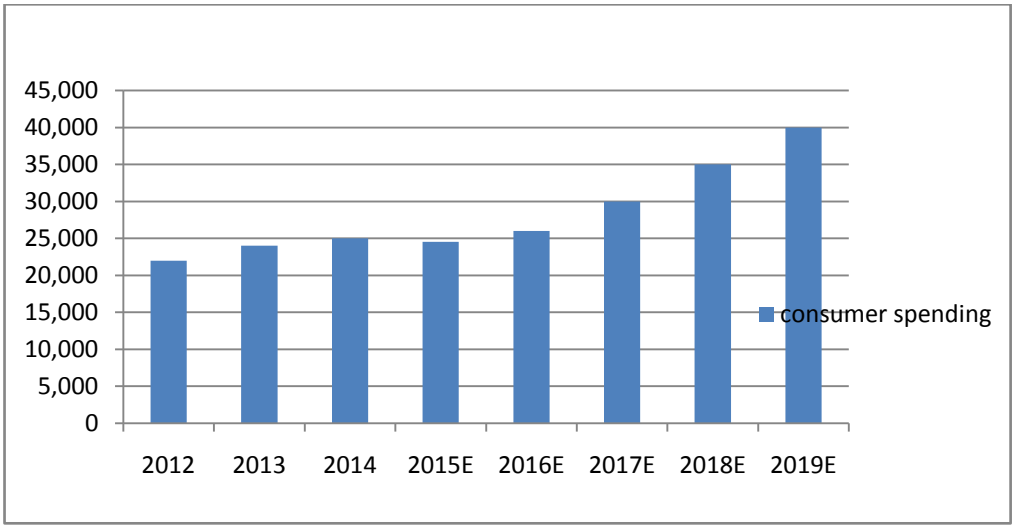


Fig 2.4: Consumer Spending in the Food and Beverage Industry
Source: Chapel Hil Denham securities (2015).www.chapelhilldenham.com. pg 2

Overview of Guinness Nigeria Plc

Guinness is one of the leading alcoholic and non-alcoholic beverage companies in Nigeria with the dominant market share in the stout segment. The Company's strong market share in the brewing segment of the food and beverage industry in Nigeria is supported by a good brand name, technical & product quality assistance from its parent company. However, poor performance has plagued the company in recent times.

The decline in performance was associated with the current weak macroeconomic environment and declining consumers' effective disposable income. Despite the uptick in revenue growth during FYE 2015, higher operating and finance expenses eroded the gains thus resulting in a lower profit before tax margin of 9% (FYE 2014: 11%). a review of the unaudited accounts for the six months ended 31 December 2015 showed a 65% decline in profit before tax when compared with corresponding figures of 2014. In our view, Guinness' profitability is declining and requires improvement. However, Guinness Nigeria PLC recorded a satisfactory return on equity of 22% (FYE 2014: 26%) which is above the average yield on treasury certificate in the same period. Subsequent to year end, there has been changes in senior management with a view to turn around the fortunes of the Company as well as improve cost management amidst the challenging operating environment. Though Guinness Nigeria PLC expected gains from these initiatives, In FYE 2015, Guinness optimized its stock of raw materials to meet manufacturing demand as opposed to yearly build-up of raw materials as well.

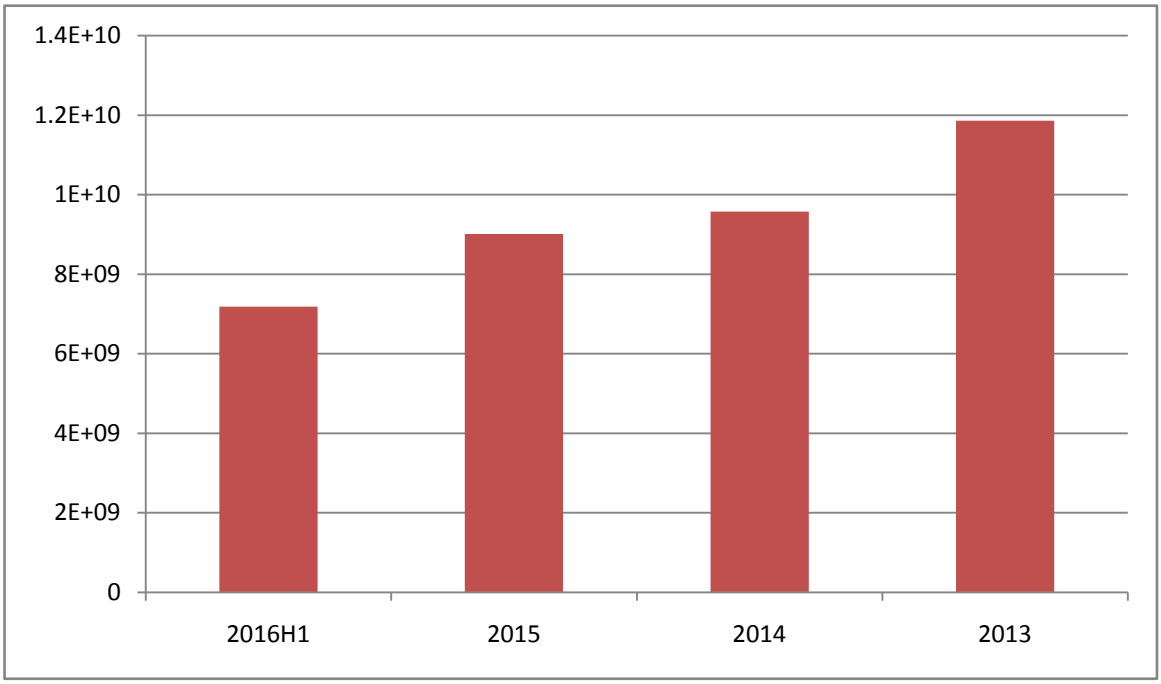


Fig 2.5 Profit After Tax of Guinness Nigeria Plc(2013-2016H1)
Source ; Guinness Nigeria PLC annual financial statement (2016)

Overview of Nestle Nigeria Plc

Nestle Nigeria Plc is a subsidiary of Nestle S.A of Switzerland which together with Nestle CWA limited own 62 percent of Nestle Plc. It is a global company with specialties in food manufacturing and marketing. Nestle Nigeria Plcstarted operations in Nigeria as a simple trading organization in 1961. It became a public company on April 20, 1979. The Company operates majorly Food products. These include the production and sale of Maggi, Cerelac, Nutrend, Nan, Lactogen and Golden Morn, Milo, Chocomilo, Nido, Nescafe and Nestle Pure Life. The Company manufactures and markets a range of brands, which include Infant Formula-Nestle NAN, Nestle LACTOGEN, Infant cereals-Nestle NUTREND, Nestle CERELAC, Family cereals-Nestle GOLDEN MORN, Confectionery-Nestle CHOCOMILO, Nestle KITKAT, Bouillon-MAGGI Cube, MAGGI Mix'py and Table Water-Nestle PURE LIFE. Its products include MAGGI Star Cube, MAGGI Crayfish, MAGGI Chicken, Ginger & Garlic, Golden Beef and Classic. It is also involved in export activities as it exports some of its products to other countries within Africa. The company also continually explores the use of local raw materials in its production processes and has also successfully introduced the use of locally produced items such as soya bean, maize, cocoa, palm olein, cassava, starch, wheat flour and sorghum in a number of its products. Distributors of the company's products are spread all over the country. Nestle Nigeria Plc procures all of its raw materials on a commercial

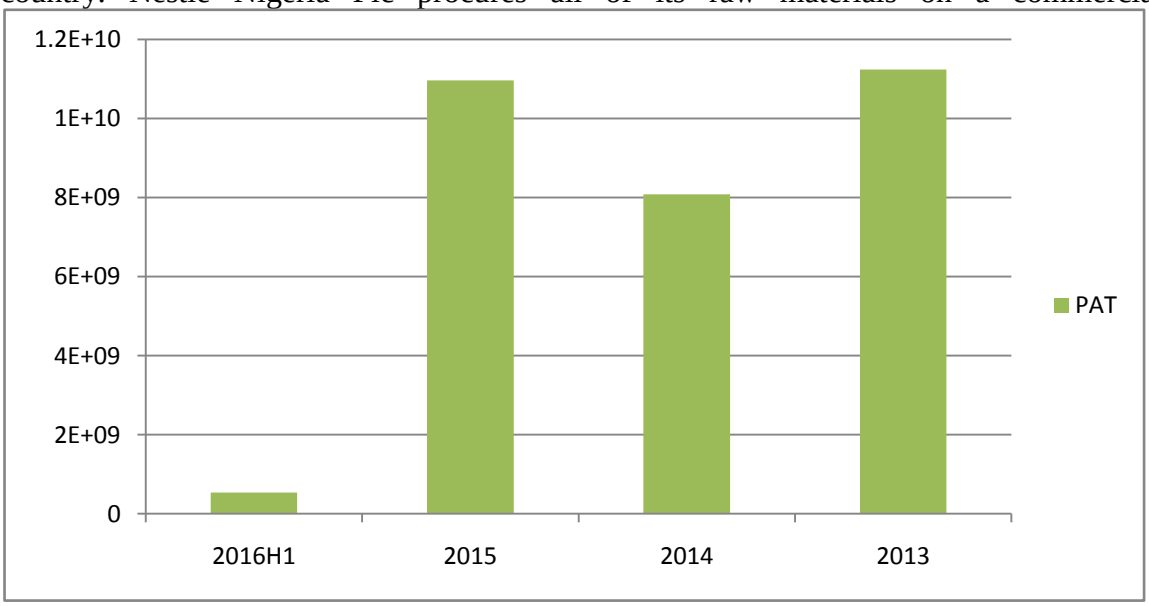


Fig 2. 6 Profitability Trend of Nestle Nigeria Plc (2013-2016H1
Source: Financial statements of Nestle Nigeria Plc (2016)

basis from overseas and local suppliers.Fig 5 above shows the profitability trend of Nestle Nigeria from 2013 to 2016. It reveals the fluctuations in the profit of the company. Although the company's profit recorded a better performance in the first half (H1) than the previous year, its profit declined 94 per cent to #536m in its first Half(H1) period compared to #8.88b recorded in the previous year.

Over view of Cadbury Nigeria

Cadbury Nigeria Plc was incorporated in 1965 and was listed in the Food/Beverages subsector of the Nigerian Stock Exchange in 1976.The company is a producer/manufacturer of sugar confectionery, gum and food products for the Nigerian and West African sub-region markets. Some of its leading brands includes; Tom Tom, Bournvita and Bubba bubble gum, Eclairs, Chocki, Trebor Mints, vitaminised candy, and Creme Rollers. Cadbury is 75per cent owned by CSOL, a subsidiary of Cadbury Plc, a UK based global confectionery company. The remaining 25 per cent is held by a highly diversified spread of Nigerianindividual and institutional shareholders.The company has one subsidiary, Stanmark Cocoa Processing Company Limited, a privatecompany engaged in the processing of cocoa beans to butter, powder, liquor and cake and which supplies all the cocoa powder needs of the Cadbury. SCPCL is per cent owned by CadburyNigeria.The company recently did a rights issue of N22.2 billion through an offer of 7 new ordinary shares for every 3 ordinary shares held at a price of N8.65 per share which was 85.56per centsubscribed.

The Company's lead brand in the food drinks business is Bournvita, which holds a strong market share of the Nigerian food drinks market. The main brands in the Company's confectionery business include Tom Tom and Buttermint, for sale in Nigeria, and Hacks and Ahomka Ginger, which are exported to neighboring West African countries. Each brand has grown to become a household name, and each holds a strong market share in their segments.Cadbury recently did a strategic review which was followed by an extensive restructuring exercise to restore its path to profitable growth by identifying significant growth potentials in its core brands. It stopped the production of some of its famous brands such as Richoco, Stimorol, Bubba bubblegum and Eclairs and redeployed resources towards the development and expansion of its core profitable brands such as; Bournvita, Tom Tom and Butter mint to drive earnings.Fig 6 represents Cadbury profitability trend from year ended 2013 to first half of 2016. Cadbury Nigeria Plc has been going through a dwindling profit since 2013 when it recorded a high profit of #35.7 billion. Profit declined in 2014 to #1.1 billion but was later restated as #2.1. Cadbury 2015 full year results revealed a profit after tax of #1.1 billionwhich is much lower than #35.7 billion profit declared by them for 2013.

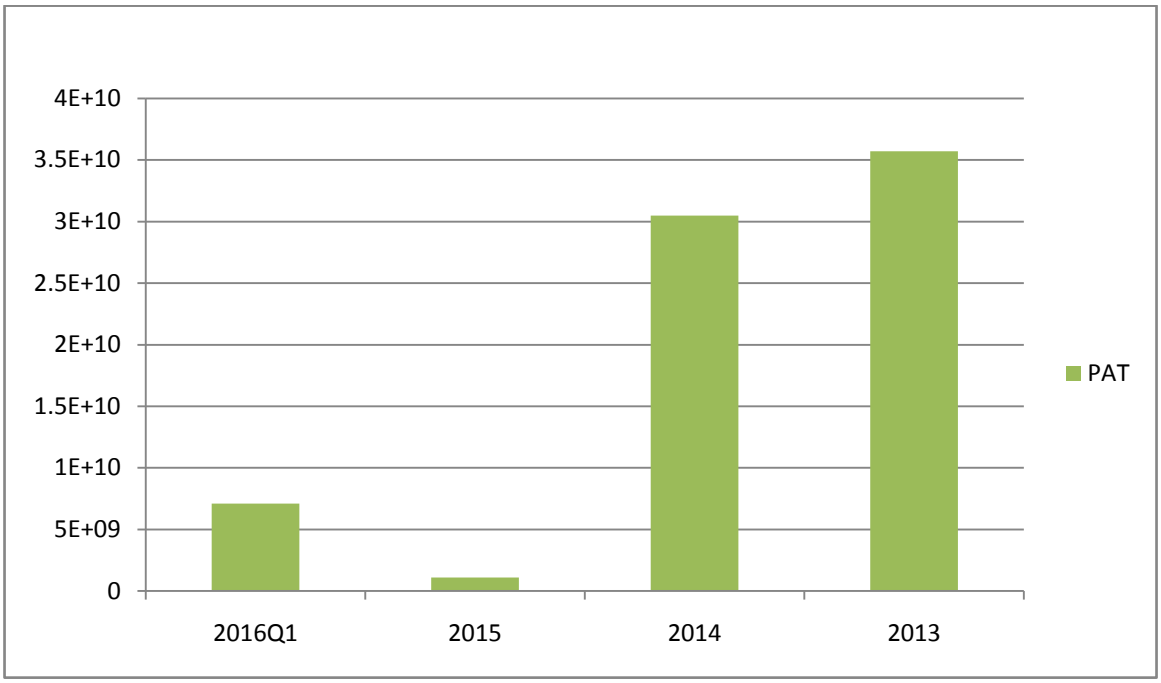


Fig. 2.7 Profitability trend of Cadbury Nigeria Plc (2012-2016Q1)
Source: Financial Statements of Cadbury Nigeria Plc (2016)

2.2 Theoretical Framework

2.2.1 Open Systems Theory

This study is founded upon open systems theory as popularized by Ludwig von Bertanlanffy (1956). Other seminal thinkers that contributed to this theory include Alfred North Whitehead, Chester Bernard, Anatol Rapoport, Kenneth Boulding, Paul A.Wiss, Ralph Gerard, Kurt Lewin, Roy R. Grinker, William Gray, Nicolas Rizzo, Karl Menninger,Silvano Arieti. Open systems theory is based on the concept that organizations are strongly influenced by their environment. The environment contains resources needed by the organisation to survive and so creates both opportunities and constraints for the organization. Organization as an open system collects and process strategic information about its external environment on which to base organizational actions (Daft and Weick 1984). This requires the firm to be actively involved in strategic environmental scanning which offers a process by which internal and external environments can be diagnosed in order to evaluate strengths and weakness, opportunities and threats there in. Aspects that are critically important to open systems include the external environment, boundaries within systems, subsystems also characterized by clear boundaries which reside within

larger systems, principle of equifinality implying that a system can reach the same final state from differing initial conditions and by a variety of paths. The open systems theory is very important in understanding the influence of strategic environmental scanning on the performance of Food and Beverage firms.Food and Beverage firms possess specific characteristics that make them open systems as shown in Fig 2.8 below. They exist in a specific physical, technological, cultural, economic and international environment to which they must adapt.; they are not self sufficient and so depend on the environment for survival; they get input from the environment, transform it and send output to the environment in form of goods and services; attainment of their goals which translates to successful performance depends to a great extent on proper interdependencies among the systems both internal processes and the external systems. Open systems theory emphasizes the influences which the external environment exerts on the organsiation. The external environment of Food and Beverage firms offers wide range of opportunities, problems, threats and pressures and thereby influences the activities and performance of the organisation. Influences can be political, economic, ecological, societal and technological in nature. These environmental influences that affect food and beverage firms can be described as either specific or general. The specific environment refers to the network of suppliers, distributors, government agencies, and competitors with which a business enterprise inter-acts. The general environment encompasses influences that emanate from the geographic area in which the organization operates. These are ; Cultural values, which shape views about ethics and determine the relative importance of various issues; social environment which can present market and demographic shifts that can influence the organization; Economic conditions, which include economic upswings, exchange rate instability, recessions, unemployment, and many other economic factors that affect thefood and beverage firm'sability to grow and prosper. Economic influences also partially dictate an organization's role in the economy; Legal/political environment presenting laws and policies which can directly or indirectly influence the organization such as taxes, duties and levies; legal and political systems in which an open system operates can play a key role in determining the long-term stability and security of the organization's future; technological environment which impacts on the organisation’s overall business and production process. These systems create both opportunities and threats for the organization

Overview of Food and Beverage organizations as open systems

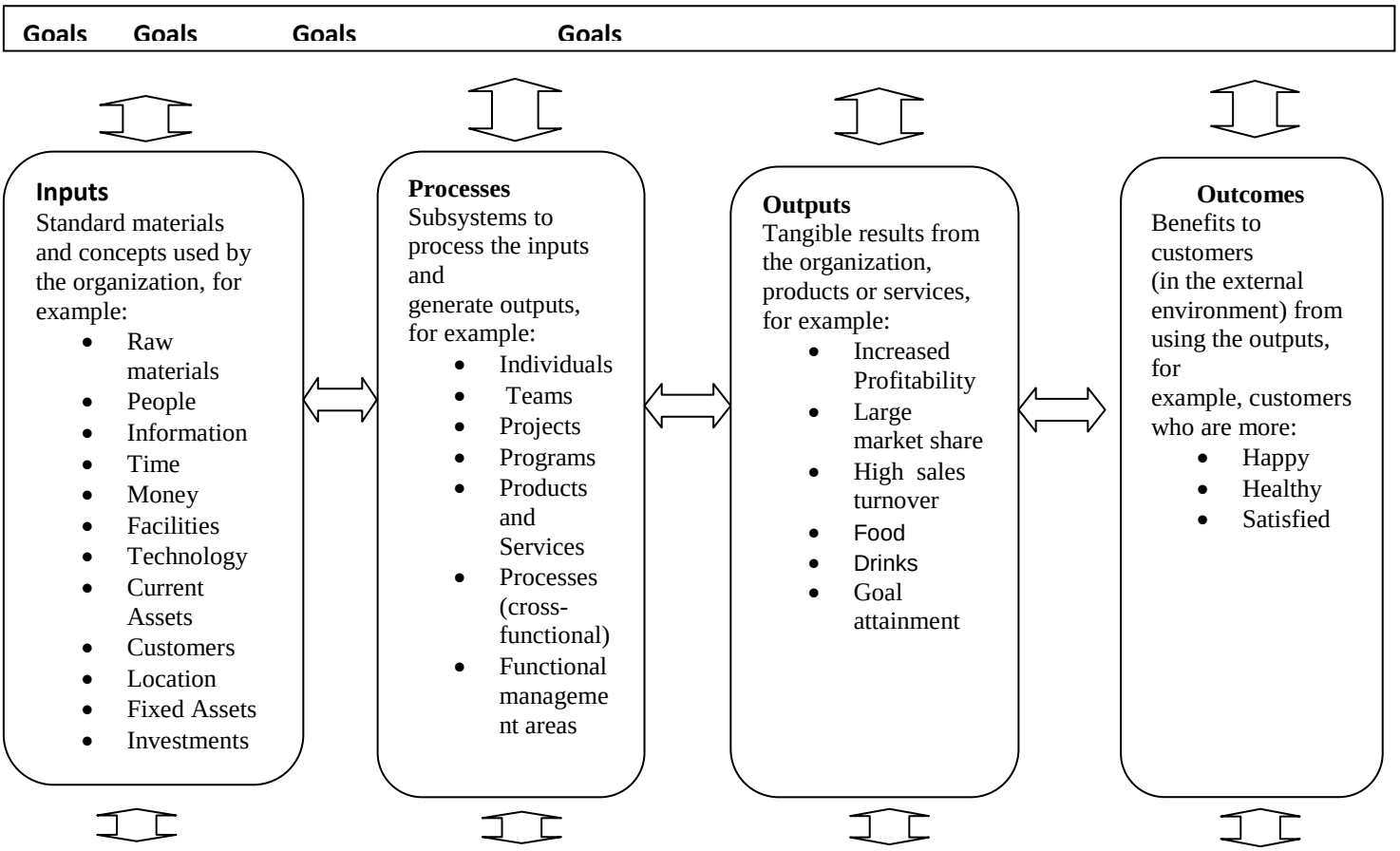


Fig 2.8: Overview of food and beverage organizations as open systems
Source :Adapted from Mcnamara (2016) organizations as open systems. Field Guide to Consulting and Organisational Development; a collaborative and systems approach to performance, change and learning. Pg 144

As shown in Fig 2.8, Food and beverage firms as open systems import resources in the form of People, Information, Time, Money, Facilities, Technologies, Customers, Location, Collaborators, energy and raw materials from the environment. These resources undergo some kind of transformation to produce a product. The product is exported back to the environment. Environmental reaction is then fed back to the system as an input, thus a cycle is maintained. Open systems are characterized by negative entropy, which is achieved by acquiring more resources to replace spent ones. By careful strategic environmental scanning and monitoring, Food and Beverage firms achieve a state of equilibrium through dynamic homeostasis. In other words, through consistent strategic

environmental scanning of the external environment, Food and Beverage organizations can shape their own internal processes to reflect essential and effective responses. This process of understanding the match between external influences and internal responses assists the Food and Beverage firms in making strategic decisions that will be very effective and flexible to changing market forces so as to ensure successful performance. As their managers scan their environment, they interpret environmental influence based on their own judgments, expectations and values. This helps them make strategic decisions that determine the future of their organization.

2.3Empirical review

A number of studies have been carried out on environmental scanning in a bid to provide solutions to organizational problems created by the strategic environmental changes. These studies include scanning activities of managers operating in Nigeria and abroadboth in profit and non-profit as well as different Food and Beverage firms. Thus, diverse views abound depending on the perception in relation to how strategic environmental scanning affect performance of firms. Arising from the above,Dut (2015) investigated how SME's local business environment affects its performance. Using a survey research design,, they sampled 63 manufacturing and service SMEs. Data was analysed using simple regression analysis. Their findings revealed that labour availability and firm promotion policy within the economic environment has a positive effect on SMEs performance.

Hidayat and Mualim (2015) examined the effects of environmental factors on corporate strategy and performance of manufacturing industries in Indonesia. Using survey research design, 150 Indonesian companies were sampled. Results revealed that internal and external factors, through the operating environment and the remote environment. With these, the companies can understand the conditions of their environments so as to establish strategic goals for improved performance.

Vudzijena (2015) carried out an analysis of the impact of environmental scanning on the performance of small and medium retail enterprises in Harare. Using a survey research design, 150 Retail SMEs in Harare were sampled. Data were analyzed using correlation and regression analysis. The findings revealed a positive relation between environmental scanning and performance of retail SMEs in Harare

Ridwan and Ina (2015) carried out a qualitative research on the influence of business environment on organizational performance and found that business environment have a significant effect on organisaional performance.

Siddharatha and Dev (2014) carried out an empirical study to examine the extent to which environmental scanning is done by banks in India and how their performance is affected by such. To achieve this, three top banks were sampled by convenience .Both primary and secondary data were sourced. Data collected were analyzed with the aid of SPSS using statistical technique like mean, standard deviation and ANOVA. A significant relationship was found to exist between environmental scanning and performance of banks in India. More so, findings revealed that competitor and economic environment were found to influence the performance of banks in India more than other sectors.

Qi et al (2014) examined the effect of firms' environmental performance and financial performance of the Chinese firms. Descriptive statistics, correlation analysis and regression analysis were applied. It was found that the environmental performance influenced the financial performance of the company.

Rouibah (2003) gave insights from Kuwait on environmental scanning. He investigated the strategic behaviors of Kuwaiti executives from 86companies with regard to environmental scanning characteristics. The main results showed that Kuwaiti executives have trouble dealing with environmental scanning. Results also suggest that executives must recognize the role of strategic information and begin actively to manage and plan its collection as a corporate resource. The study suggested that a computer-based system for environmental scanning would probably have to be primarily oriented for educating and training purposes.

Raja and Mahmoud (2013) carried out a quantitative research aimed at investigating the perception of strategic environmental scanning by managers of Tunisian companies. They sampled 45 companies using survey research design and simple percentages for analysis, their findings revealed that Tunisian managers associate strategic environment scanning with successful business performance. They futher found that Tunisian business managers perceived the market environment as the most significant followed by the technological and competitor environments.

Njuguna-kinya, Munyoki and Kibera (2013) examined the influence of the external environment of an organization on performance of community based Hiv and Aids organization in Nairobi. With the use of descriptive cross sectional survey design, 183 community based Hiv and Aids organizations were assessed. Performance indicators measured include financial viability, efficiency and relevance. Regression technique was used to analyze data. Result revealed a statistically significant positive relationship between external environment and performance.

Babaloh and Adesanya (2013) studied the implications of business environmental factors on the survival and growth of business organizations in the manufacturing sector in Lagos metropolis of Nigeria. 50 firms were sampled and data was analysed using simple percentages. From their findings, environmental factors like electricity and government policies affect the survival of business in Lagos.

Elbanma and Athwarai (2012) examined the influence of environmental uncertainty and hostility on organizational performance. They sampled Egyptian and United Arab Emirites (UAE) firms. Simple regression was used for data analysis. Their findngs showed that competition and economic uncertainty have no relation with organizational performance

Osuagwu (2009) determined the relative importance and impact of specific aspects of environmental factors on the strategies of Nigerian bank. The result shows that technology in the bank is the third most impacted factor in the strategic marketing practices of Nigerian banks

Cui and Carusfil (2006) investigated the influence of market and cultural environmental factors on technology transfer on performance. Their study used environment-strategy – performance framework to investigate the market and cultural environmental factors on international technology transfer and resultant performance. 131 managers of subsidiaries of foreign multinationals were sampled. They found that a significant positive relation exist between technology transfer and performance of business.

Javier and Oscar (2005) analyzed the relationship between environmental proactivity and business performance on a sample of 186 industrial companies. From their analysis, environmental management was found to be capable of bringing about competitive

opportunities for companies. It also revealed that some environmental practices produce negative effects on performance

Few studies have captured environmental scanning in the Nigerian environment as it affects business performance.(Akpan, Ikon, Chukwuonye and Momoh (2016);Onodugo and Ewurum, 2013; Babatunde and Adebisi, 2012; Popoola, 2000; Olu, 2008, Sawyer 1993).

Akpan, Ikon, Chukwuonye and Momoh (2016) studied economic environment and performance of food and beverage sub sector in Nigeria. the study examined the implications of economic environment on performance of food and beverage firms in Nigeria. the study found that economic environmental variables like exchange rate and interest rates affect the performance of food and beverage firms in Nigeria.

Ezugwu and Akubo (2014) examined the effect of high corporate tax on the profitability of corporate organizations in Nigeria. The study sampled 41 firms. Using multiple regression for analysis, the study found that a directpositive relationship exist between corporate tax rate and realized profit.

Olusola O. and Opeyemi A. (2013) investigated exchange rate volatility in Nigeria over the period 1986 to 2009 using a parametric measure. Their study found that exchange rate has been volatile in Nigeria during the period under investigation. The study therefore recommends that the government should always take a cognizance look at the frequent movement in the exchange rate with a view to regulating it because higher risks attached to high degree of volatility may scare off both domestic and foreign investors

Articulations of Onodugo and Ewurum, (2013) in their study on the place of environmental scanning in the survival of businesses in Nigeria revealed salient findings. Some businesses that failed were found to be those who could not respond to the vagaries from its environment. They therefore identified situations in the organization that make it necessary to scan the environment. They include; strategic planning, identification and maximization of opportunities, maximization of threats, design and implementation of strategies and fulfilling of social responsibilities. Their study demonstrated that organizations that actively embark on environmental scanning do better than those who do not.

Enekwe, Odum and Nwoha (2013) examined the effects of Exchange rate fluctuations on manufacturing sector of Nigeria over a period of 25 years (1985-20110). Using Ex-post facto research design and Multiple Regression for analysis. Findings revealed that exchange rate has a positive effect on manufacturing gross domestic product .

Dawda and Ismaila (2013) examined the influene of technological environment on strategic choice and performance of quoted manufacturing firms in Nigeria's Food and Beverage industry. Using survey research design, 6 firms and 159 management staff of the 6 firms were sampled. Data were analysed using simple regression technique. They found that technological environmental factors prompted quoted Food and Beverage firms to adopt multi-product marketing strategies so as to boost performance

Adeoye (2012) investigated the impacts of external business environment on organizational performance in the Food and Beverage Industry in Nigeria. the study adopted a survey design and studied three companies with 150 sample size. Data collected were analysed using multiple regression analysis. The findings of the analysis showed that the external business environment (political, economic, socio-cultural and technological have impact on organisational performance (effectiveness, efficiency, increase in sales, achievement of corporate goals).

A similar study by Babatunde and Adebisi(2012) corroborated the findings above. Their study which basedon strategic environmental scanning and organization performance in a competitive business environment surveyed samples of management staff of some Nigerian food and beverage organizations using correlation analysis. Effective and efficient performance of food and beverage firms was found to depend on their response to the kind of environment in which the business operates either directly or indirectly. They recommended that Nigerian executives should take into cognizance the Nigerian environmental uncertainty and dynamism and thus ensure that a good fit exists between the organisations strategy and the environmental demands.

Olu(2008) examined the impact of environmental scanning on coroprate performance in selected Nigerian banks. Survey design was used to carry out the study. Difference of mean and correlation coefficient was used for analysis with the aid of SPSS statistical package. Their findings revealed that environmental scanning firms outperform non-environmental scanning firms. Also, information derived from environmental scanning

was found to be increasingly been used to drive the strategic management process. It was also found that some banks failed as a result of the pressure from the environment which they failed to address on time.

Miller (1994) analyzed 81 business organisations made up of successful and ailing ones.The purpose of his study was to test empirically the relationships between the environmental scanning activities of upper-level executives and their organisational performance, on the premise that executives would scan to reinforce their organization's particular basis for competing. Data was obtained by the use of questionnaire. Correlation analysis was used to identify a positive impact of environmental scanning on organisational performance.

Some scholars have examined environmental scanning from a situational dimension. Environmental scanning from this dimension is assessed by perceived environmental strategic uncertainty(PEU). Several studies have found that perceived environmental uncertainty is a good predictor of the amount of scanning. (Sawyer, 2000;Temtime, 2001). Choo(2001) opined that managers who perceive the environment to be more uncertain will tend to scan more. Sawyer examined the perception of environmental uncertainty and environmental scanning behavior of executives of manufacturing firms in Nigeria. His research was built upon the studies of classical scholars like Daft(1984), Sorumunem and park (1998), Hambrick(1981) and Aguilar (1967). Using an exploratory survey design, he sampled 228 manufacturing firms using criterion sampling technique. He based his investigations in three areas; the relationship between the perceived environmental uncertainty(PCU) and the frequency of environmental scanning; the uncertainty levels in the micro and macro environment which he called the “task and “remote” environments and the relationship between the PCU in the external environment of manufacturing firms in Nigeria and their choice of scanning information sources. Perceived environmental uncertainty which is the independent variable was measured by three variables; rate of change in the external environment, degree of environmental complexity and the degree to which the firm is dependent on the sector important resources. Environmental scanning which is the dependent variable was measured by the frequency of scanning and the degree to which the mangers of manufacturing firms were interested in scanning to get information using external, internal, personal and impersonal sources of information. The technique used for analysis include paired sample t test, one way analysis of variance, and

pearson's product moment correlation. His findings showed that PEU was higher in the task(micro) environment than the remote(macro) environment. The political and economic environments in Nigeria were found to be highly uncertain, thus affecting the performance of organizations. Information for these environments was found to be mostly derived from impersonal sources external to the organization.

Temtime (2001) further extended Sawyer's research by investigating environmental scanning behavior of small and medium firms in developing economies with evidence form Botswana. A randomly selected sample of 44 firms in Botswana were studied. He adapted Sawyer's Perceived Strategic uncertainty measure of strategic environment behavior. Using the same statistical techiniques as Sawyer for analysis,his result revealed that customer/market environment, competitor environment and economic environment were found to be more frequently scanned by Botswana executives. He further found that Botswana executives relied more on impersonal and internal sources of information for analyzing an increasingly uncertain sector. Temitime (2001) concluded that companies in Botswana do scan the environment and use the information in major managerial decision making process, particularly, strategy formulation.Thus, it can be inferred from this finding that strategic uncertainty is a predictor of the frequency with which corporate leaders scan environmental sectors. Although the frequency of collecting information as a predictor of effective environmental scanning has been emphasized by scholars who access environmental scanning from a situational dimension,

Zhang, Majid and Foo(2012) differ in their opinion that frequency of collecting information does not have significant correlation with the informationquality. In their survey study aimed at investigating the relationship between perceived strategic uncertainty and environmental scanning activities of 42 travel agents in Singapore. They found that the frequency of collecting and organizing information is positivelycorrelated with perceived strategic uncertainty, and the information literacy skills for conducting all steps of environmental scanning are more important, in terms of the overall quality of the end product. However, frequent information collection may not necessarily lead to better quality of information. According to them, the collected information should be properly processed, organized, disseminated and evaluated to realize its value.

Saadeghvaziri, khaef, Motaqi and Esfahani (2012) studied Iranian automobile parts manufacturing so as to investigate the relationship between environmental scanning and performance. Using survey design, random sample of Iranian parts manufacturers were studied. Regression analysis was used to analyze data. From their findings, competitor environment was found to be the major environment that affects the performance of Iranian parts manufacturers, thus, the need for them to focus deeply on scanning the competitor environment more than the others so as to improve their performance.

Nguimekeu, P. (2013) examined the impact of business environment on the productivity of retail firms in Cameroon. The paper examined the impact of business environment on the performance ofretail firms in Cameroon. Using Structural econometric analysis to quantify the impactof some environmental factors over firm performance, they found that business environment significantly influence performance of firms.

Agyapong, Amanor, Muntaka (2012) also contributed to the literature on environmental scanning from a situational dimension.They examined the strategic uncertainty and environmental scanning behavior among CEOs in Ghana. Their study attempted to cover the gap in the former researches by examining scanning behavior in various sector of the economy and exploring to know if and / or how PSU differ across industries and what individual characteristics play a role in strategic environmental scanning. The study not only examined direct linkage between environmental scanning and PSU but also how environmental scanning is affected by other characteristics relating to the firm, industry and CEO. Criterion sampling was also adopted for selection of 59 CEOs in Ghana. Environmental scanning behavior was measured by scanning frequency and scanning mode while performance was proxied by return on assets. Other variables measured include CEO characteristics, organizational size. Their findings showed that the highest strategic variable sector that demanded environmental scanning in Ghana were customer environment, supplier environment, competitor environment followed by economic and technological environments.

Environmental scanning has also been linked to the growth and evolution of manufacturing firms. This relates the firm's internal environment to scanning context. In this vein, Julien et al (2007) considered aspects of the firm like level of decentralization, size of the firm, and management proactivity. From his research findings, 'firm

characteristics' and the 'entrepreneurs profile' were two contingency factors affecting scanning practices of firms. Thus, researches under this theme associate the growth of firms-both in size and complextity with their environmental scanning need. Faley(2012) related the stages of development of a firm to different types of scanning- irregular scanning, intermittent scanning and continuous scanning. Building on this, Smith (2012) undertook an exploratory study of 871Australian manufacturing firms. He studied the environmental scanning practices and rates of growth of Australian manufacturing SMEs. His sample was based on a panel data from Australian Business longitudinal survey. He employed exploratory cluster analysis with key enterprise size and growth variables to investigate if a firm's growth rate affects environmental scanning practice vis-a-vis low to moderate to high growth pathways. This is to identify any link between environmental scanning practices of firms, scanning sources and their evolutions with levels of managerial development. He discovered a significant difference between the scanning practices of low, moderate and high growth manufacturing firms. The percentage of high growth firms involved in scanning was found to be higher than that of moderate or low growth ones. However, his finding revealed that as these firms grow from one pathway to another, their information sources change from external to informal sources. This according to him can impede the success of the firm. He concluded that Australian manufacturing firms are mostly prompted to undertake environmental scanning not because of the environmental dictates but a result of the level of managerial development which the firm has achieved.

Karami (2008) also attempted to demonstrate the link between growth strategy and environmental scanning. He carried out an investigation on environmental scanning and growth strategy in high tech small and medium sized enterprises in British electronic manufacturing company. After collecting data from 132 CEOs with the help of questionnaire and correlation for analysis, it was found that there is a significant relationship between increasing the environmental scanning of the firm and the success of the firms performance in the electronic manufacturing SMEs.

Prior researchers have also attempted to link Organizational strategy and scope of environmental scanning. (Everton, Elton and Carlos, 2014; West, 1998). They suggest that a balanced organizational culture is likely to encourage managers to scan more frequently on a more adaptive outlook.

Everton et al (2014) established an interaction between organizational strategy and the environment of small companies with an aim to analyze the relation between the scanning of environmental information, strategic behavior and performance. They carried out a survey study of 120 car dealers from Itajai city in Santa Catarina.Sampled companies were classified according to the strategies adopted based on the Miles and Snow(1978)'s strategy typologies- defender strategies, prospector strategies, analyser strategies and reactor strategies. Using correlation to test relationship and co variance to vary the differences among the companies, the results showed that those who adopted prospector strategy scanned data from the competitor and technological environment, they also access written sources of information more frequently than those that adopt another type of strategic behavior. Overall, the scanning information source was more associated with the performance than with the strategy measured by strategic behavior.

West (1988) investigated the effect of organizational strategy and environmental scanning on performance of US food service Industry. The study made use of survey research design. 65 companies were sampled from 1982 to 1986. Using simple percentages for analysis, the study found that the performance of firms proxied by return on sales was greatly influenced by strategy and environmental scanning as successful firms engaged in strategic environmental scanning activities more that low performing firms.

Subramanian, Fernandes and Harper (1993) studied the influence of environmental scanning on performance of organizations. They sampled 500 US fortune firms and found that performance proxied by profitability and growth was influenced by environmental scanning as firms who engaged in environmental scanning activities recorded higher growth and profitability than firms who did not.

Sawyer (1993) investigated the relationship between perception of environmental uncertainty (PEU) and Environmental scanning behavior of chief executive officers. He samples 47 manufacturing firms in Nigeria and found that perceived uncertainty in the environment of manufacturing firms was significantly higher for the task environment sectors than the general environment sectors. The study further showed economic and political-legal environments to be the most significant for Nigerian manufacturing executives than the American manufacturers.

From the empirical review, it is evident that there is still a gap as it relates to the influence of environmental scanning and performance in Nigeria as not much has been done in that area. This study intends to cover such gap. Also, most of the prior studies approached environmental study and organizational performance by linking perceived environmental uncertainty with scanning frequency. One of the empirical questions posed by the environmental scanning research is about which sector of the environment generates greater strategic uncertainty. Many scholars have tried to provide answer to this question by investigating the environmental sectors to know which one poses greater threat for business. while some scholars found that the task environment creates greater perceived strategic uncertainty than does the general environment (Ahmed et al, 2012) some others tried to prove the contrary (Sawyer 2000). Some scholars believe that perceived Strategic Uncertainty of all environmental sectors all have mixed irregular compositions. As a departure from prior studies, this study uncovered the extent to which the performance of Nigerian food and beverage industry can be affected by changes in their environment by investigating the variables within their external environment using appropriate econometric tools.

CHAPTER THREE

METHODOLOGY

3.1 Research Design

Both Descriptive survey and Ex Post facto research designs were used in this study.This study is descriptive because it lays bare howenvironmental factors impact on the performance of Food and Beverage firms. A survey design aided the collection and analysis of data from the staff of selected Food and Beverage firms with the use of questionnaire. Ex Post Facto research designexaminedhow an independent variable, present, prior to the study in the subject, affected a dependent variable. This is suitable for this study whichmade use of a time series data to examine the influence of a set of independent variables on dependent variables as specified by econometric models.

3.2 Sources of Data

Data for this study were derived from both primary and secondary sources. For the purpose of objectives one to five, secondary source of information was adopted to determine data while data for objective six were derived through administration of questionnaire. In the same vein, the primary information werederived through administration of questionnaire to respondents in Nestle Nigeria Plc, Guinness Nigeria Plc and Cadbury Nigeria Plc. Copies of questionnaire were issued to selected staff of Nestle Nigeria Plc, Guinness Nigeria Plc and Cadbury Nigeria Plc within the category of top management, middle level management and lower level management categories of staff. Thus, the secondary source of information is associated with data derivable from textbooks, core publications of Nestle Nigeria Plc, Guinness Nigeria Plc and Cadbury Nigeria Plc, News Papers and Magazines, Journals, Central Bank of Nigeria (CBN) statistical bulletin(various issues), various issues of the publications of Federal office of statistics, various issues of Central Bank of Nigeria(CBN) major economic indicators, news and media releases from Nestle Nigeria Plc, Guinness Nigeria Plc and Cadbury Nigeria Plc (various issues) and other similar periodicals. Collection of secondary data involved data on a number of variables with a range of 26 years (1990-2015)

3.3 Data Required

The data required for analysis for the period (1990-2015) years are as follows:

Data on Profitability for 26 years

Data on Taxation for 26 years

Data on Fixed assets for 26 years

Data on Investment for 26 years

Data on Export at a particular time for 26 years

Data on Import at a particular time for 26 years

Data on Balance of payment for 26 years

Data on Exchange rate for 26 year

Data on Capacity utilization for 26 years

Data on Industrial production for 26 years

Data on Inflation for 26 years

Data on Unemployment for 26 years

Data on Gross Domestic Product for 26 years

Data on Turnover for 26 years

Data on Fixed asset for 26 years

Data on Current asset for 26 years

Data on Share capital for 26 years

Data on Manufacturing for 26 years

Data on Technology for 26 years

Data on Investment for 26 years

Data on Market share for 26 years

3.4 The population of the study

The population of this studyis made up of Food and Beverage Firms listed under Nigeria Stock Exchange (NSE) which hashitherto been in operation since 1990. These are 9 in number as indicated in Appendix XXIII

3.5 Sample Size and Sampling Technique

With the use of Stratified Simple Random Sampling Technique,three out of the nine Food and Beverage firms in the population of the study were selected. This involved grouping of the nine Food and Beverage firms into two categories (Food and Beverages) based on homogeneity and relatedness of products. Five companies fell under Food category while four companies fell under Beverages category as indicated in Appendix XXIII.Three companies were randomly selected from the two categories. While two companies were selected from Food category one company was selected from Beverages category. For the purpose of objective six which involved collection of primary data, all the 144 members of top management, middle level management and lower level management of the three selected firms were equally sampled as shown below

Population of Management Staff of Selected Firms

S/N	Company	Top level Mgt	Middle Level Mgt	Lower level Mgt	Total
1	Guinness Nig Plc	12	22	31	65
2	Nestle Nigeria Plc	7	12	25	44
3	Cadbury Nigeria Plc	7	10	18	35
Total		26	44	74	144

Field Survey, 2016

3.6 Method of Data Collection

This study on environmental scanning and performance of selected Food and Beverage firms covered the period of 1990 to 2015. To complement this study, both secondary and primary data were used.The secondary data weresourced from Annual publications/ Report of the companies studied, journals, Nigeria Stock exchange fact book (various issues), online publications related to the subject matter, publications bureau of statistics, balance sheets of the selected Food and Beverage firms as well as annual financial statement in published financial reports.For the purpose of objective six, 144 copies of questionnaire were administered to respondents and 115 copies were collected from respondents after repeated visits to the companies. Questionnaire wasadministered to staff at different levels of the management such as top level, middle level and low level. The questionnaire was a 5 point Likert type questionnaire with Stronglyagreed(SD) rated 5,

Agreed (A) rated 4, Disagreed (D) rated 3, Strongly Disagreed (SD) rated 2and No Idearated 1.A mean rating of 3.0 was accepted as agreement.

3.7 Method of Data Analysis

The secondary data collected for the equations for empirical modeling was analyzed using Ordinary Least Square (OLS) technique with the use of Gret L econometric package. The use of OLS is to avoid bias as well as obtain appropriate association of the variables measured. The equations are logged because log linear form permits direct estimation and interpretation of the associated coefficients of the model. This study adopts descriptive and analytical techniques. The analysis of data was based on multiple regression technique. The model estimation applies single linear equation. The equations are determined using the Ordinary Least Square technique. The technique is employed simply as a result of the fact that it has the properties of the best, linear unbiased estimator (BLUE) which forms the basis of the Gauss-Markov theorem (koutisyianis, 1997)

Primary data obtained for the purpose of objective No sixwas analyzed using mean and t-statistic. Mean was used to answer research question 6 while t-statistic was used to test the associated hypothesis. A mean score of 3.0 was the cut off so any score below that was rejected. Principal component technique of factor analysis with the use of SPSS (version 21) was employed. Principal component technique aims at construction of new variables called principal component from a given set of variables. As recommended by Kothari and Gurav (2014), this technique was used to convert the scores obtained from respondents into a set of values of linearly uncorrelated variables called principal components .The data generated was used to run a regressionusing SPSS 21.

3.8 Model Specification

3.8.1 "Taxation Equation (Equation 1)": This equation is used to determine the influence of taxation on the profitability of Food and Beverage Firms

$PRT=f(TAX+TNOR+MKTS+FASST+INV+EXP_{t-1}+IMP_{t-1}+BOP)\mu$……..(i)

In its full estimable expression we have,

$PRT=a_0, a_1LTAX,a_2LTNOR,a_3LMKTS,a_4LFASST,a_5LINV,a_6LEXP_{t-1},a_7LIMP_{t-1},a_8LBOP,\mu$…….(ii)

Where;

μ = white noise /error term/disturbance or stochastic term
a_0-a_9 = parameter estimate
LPRT = profitability
LTAX = =log of tax
LTNOR =log of turnover
LMKTSH = log of fixed assets
LINV log of investment
$LEXP_{t-1}$ =log of export at a particular time
$LIMP_{t-1=}$ log of import at a particular time
LBOP =log of balance of payment

In this model, which seeks to determine the influence of taxation on Food and Beverage firms, profitability, (dependent variable)was regressed on taxation and other independent variables that impact on the profitability as shown in equ (i). In this equation, profitability is used to evaluate the performance of the firms. This is because profitability is the primary goal of all business ventures. Without profitability the business will not survive in the long run. So measuring current and past profitability is very important in understanding how the firm is performing. A common goal and strategic plan for the food and beverage firms is ultimately to be profitable, to continue operations and to provide external stakeholders. Taxation is presentedin the equation to investigate how high rate of taxation affect profit. Tax is an obligatory levy which Government imposes on a business. Value added tax is a consumption tax placed on a product whenever value is added at a stage of production and at final sale. It also impacts on the profit of the firm.The tax is borne by the final consumer of goods and services because it is included in the price paid. The model is expected to demonstrate how VAT among other explanatory variables affects the profitability of food and beverage firms. Turnover on sales represents the value of goods and services provided to customers during a specified time period - usually one year. It is factored into the explanatory variables of profitability. To further understand

the impact of international transactions on the profitability of food and beverage firms, variables like Export at a particular time, Import at a particular time, balance of payment are all included in the model to explain profitability. Export is a function of international trade whereby goods produced in one country are shipped to another country for trade or commercial purposes. The sale of such goods adds to the producing nation's gross output. If used for trade, exports are exchanged for other products or services in other countries. An import is a good or service brought into one country from another. The importation and exportation of goods are limited by import quotas and mandates from the customs authority. The importing and exporting jurisdictions may impose a tariff (tax) on the goods. Balance of payment is a statement that summarizes an economy's transactions with the rest of the world. Market share is one of the primary indicators companies use to measure how well they are doing versus competitors. The model will also analyze the strategic implications of the market-share/profitability relationship.Market share is the percentage of business or sales a company wields out of total business or sales by all competitors combined in any given market. Investment means the overall money allocated (or sometimes another resource, such as time) in the expectation of some benefit in the future.

3.8.2 "**Strategic InvestmentEquation** (**Equation2)":** Thisequation examines the influence of strategic investment on the sustainable survival of Food and Beverage firms

$$PRT=b(INV+ SHCAP+FASST+CASST+TNOR+MKTSH)\mu \quad \text{.....(iii)}$$

In its full estimable expression we have;

$$PRT= b_0 ,b_1LINV, b_2LSHCAP,b_3LFASST,b_4LCASST,b_5LTNOR,b_6LMKTSH,\mu \quad \text{.....(iv)}$$

Where,

μ = white noise /error term/disturbance or stochastic term

$b_0 - b_6$ parameter estimate

PRT	profitability
INV	Investment
SHCAP	Share capital
FASST	Fixed assets
CASST	Current assets
TNOR	Turnover on sales
MKSH	Market share

The model seeks to address the implications of strategic investment on the sustainable survival of food and beverage firms. To achieve this, profitability which stands as the dependent variable will be regressed on the independent variables which include investment, share capital, fixed assets, fixed assets, current assets, turnover on sales and market share. By Strategic investments we mean investments made by the food and beverage firms studied with the goal of generating long term profit usually with the strategic information gathered from the environment which keeps up with trends in the market and addresses the needs of the customer. It also a kind of investment that can increase the asset base of the company when the company invests in another company. In this sense, strategic investments are often used to raise capital and credibility for new companies which are struggling to make their way in the market. Larger companies make strategic investments in smaller ones for an assortment of reasons. For example, a big company might invest in a smaller company which makes similar products, or in a small company which will eventually become a client of the big company. Share capital is one of the independent variables in the equation which consists of all funds raised by a company in exchange for shares of either common or preferred shareof stock. The amount of share capital a company has can change over time. A company that wishes to raise more equity can obtain authorization to issue and sell additional shares, thereby increasing its share capital.. Current assets are things a business owns that are likely to be used up or converted into cash within one business cycle--usually defined as one year. The most common line items in this category are cash and cash equivalents, short-term investments, accounts receivable, inventories, and other various current assets.

3.8.3 "Exchange Rate Equation (Equation 3)": This equation ascertains the implications of exchange rate on the performance of Food and Beverage Firms.

$$PRT=d(EXCHR+INDP+MANU+TNOR+INFL+MKTSH+SCAP+UNEM+IMP_{t-1}+EXP_{t-1}+BOP+GDP)\mu \quad \text{.....(v)}$$

In its full estimable expression we have;

$$PRT=d_0,d_1L,EXCHR,d_2LINDP,d_3LMANU,d_4LTNOR,d_5LINFL,d_6LMKTSH,d_7LSHCAP,d_8LUNEM,d_9LIMP_{t-1},d_{10}LEXP_{t-1},d_{11}LBOP,d_{12}LGDP,\mu \quad \text{.....(vi)}$$

Where,

μ = white noise /error term/disturbance or stochastic term

d_o-d_{12} = parameter estimate

PRT = profitability
LEXCHR = log of exchange rate
LINDP = log of industrial production
LMANU = log of manufacturing
LTNOR = log of turnover
LINFLA = log of inflation
LMKTSH = log of market share
LSHCAP = log of share capital
LUNEM = log of unemployment
$LIMP_{t-1}$ = log of import at a particular time
$LEXP_{t-1}$ = log of export at a particular time
LBOP = log of Balance of Payment
LGDP = log of Gross Domestic Product

Exchange rate is an important micro economic variable. It refers to the price for which the currency of a country can be exchanged for another currency**.**Exchange rate can impact on production activities of food and brewery firms as most of them source their production material abroad. The kind of exchange rate policy in a nation can determine the manufacturing output, unemployment rate as well as inflation rate. In the light of that, the model will show how exchange rate together with other variables affects the profitability of food and beverage firms. Manufacturing is the process of converting raw materials, components, or parts into finished goods that meet a customer's expectations or specifications. Gross Domestic Product(GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. Inflation is the sustained increase in the general level of prices for goods and services. It is measured as an annual percentage increase. As inflation rises, dollar buys a smaller percentage of a good or service. The value of a dollar does not stay constant when there is inflation. Industrial production is a measure of output of the industrial sector of the economy which includes manufacturing, mining, and utilities. Exchange rate can affect industrial production in the long run. Unemployment also has a functional relationship with exchange rate. Unemployment captures the statistics of people in the country who are of employment age but have not been engaged in any economic activity. It is often used as a measure of the health of the economy.

3.8.4 "**Technology Equation (Equation4)":** This equation ascertains the extent to which technology influences the profitability of Food and Beverage firms.

PRT=f(TECH+INV+TNOR+FAST+CAST+SHCAP+MANU+INDP)μ…….(vii)

In its full estimable form we have;

PRT=g_0,g_1LTECH,g_2LINV,g_3LTNOR,g_4LFAST,g_5LCAST,g_6LSHCAP,g_7LMANU,g_8LINDP)μ.(viii)

Where;

μ =	white noise /error term/disturbance or stochastic term
go-g8 =	parameter estimate
PRT =	profitability
LTECH =	log of technology
LINV =	log of investment
LTNOR=	log of turnover
LFASST =	log of fixed assets
LCASST =	log of current assets
LSHCAP =	log of share capital
LMANU =	log of manufacturing
LINDP =	log of industrial production

This fourth equation seeks to ascertain the extent to which use of obsolete technological equipment affects the profitability of food and beverage firms. Profitability is presented as the dependent variable having a functional relationship with technology, investment, turnover, fixed assets, current assets, share capital, manufacturing and industrial production. Technology means the purposeful application of scientific knowledge and or information in solving practical problems especially those related to the design, production, and utilization of goods and services and in the organization of human activities. The overall business and production process of food and beverage firms can be impacted by emergence of new technologies. The model will demonstrate the influence of technological environment on food and beverage firms.

3.8.5 "Turnover Equation(Equation 5)" This equation examines the value added by turnover(sales) on profitability of Food and Beverage Firms

TNOR=(EXCHR+ PRT+ INV+ CAPU+ INDP+ INFLA+UNEM+ GDP) μ……(ix)

In its full estimable form it can be restated as;

TNOR=h_0,h_1LEXCHR,,h_2LPRT,h_3LINV,h_4LCAPU,h_5LINDP,h_6LINFLA,h_7LUNEM,h_8LGDP,μ...(x)

Where;
h_0-h_8 = parameter estimate
TNOR = turnover
LEXCHR = log of exchange rate
LPRT = log of profitability
LINV = log of investment
LCAPU = log of capacity utilization
LINDP = log of industrial production
LINFLA = log of inflation
LUMEM = log of unemployment
LGDP = log Gross Domestic Product

This equation seeks to determine the value added by sales turnover on profitability. the dependent variable, turnover is seen as having a functional relationship with exchange rate, profitability, investment, capacity utilization, industrial production, inflation, unemployment and GDP

3.8.6 "Goal Attainment Equation (Equation 6)": To examine the extent to whichsocietal environmental factors affect the goal attainment of Food and Beverage Firms.

GA =f(SUP+ COM+ SOC+POL) µ…….(xi)
Econometrically this can be restated as;
GA=k_0,k_1LSUP,k_2LCOM,k_3LSOC,k_4LPOL,µ……..(xii)
Where,

µ = stochastic term
k_0-k_4 = parameter estimate
LGA = log of goal attainment
LSUP = log of supplier environment
LCOM = log of competitor environment
LSOC = log of socio-cultural environment
LPOL = log of political environment

This equation seeks to examine the extent to which societal environmental factors influence the goal attainment of Food and Beverage firms. In this objective, goal attainment is the dependent variable while supplier environment, competitor environment, socio-cultural environment and political environment. A set of questions are asked to measure each of the variables

3.9 Summary of Complete Equation

$PRT=a_0 + a_1LTAX+a_2LTNOR+a_3LMKTS+a_4LFAST+a_5LINV+a_6LEXP_{t-1}+a_7LIMP_{t-1}+a_8LBOP+\mu$….(i)

$PRT= b_0 + b_1LINV+ b_2LSHCAP+b_3LFAST+b_4LCASST+b_5LTNOR+b_6LMKTSH)\mu$…….(ii)

$PRT=d_0+d_1L+EXCHR+d_2LINDP+d_3LMANU+d_4LTNOR+d_5LINFL+d_6LMKTSH+d_7LSHCAP+d_8LUNEM$
$+d_9LIMP_{t-1}+d_{10}LEXP_{t-1}+d_{11}LBOP+d_{12}LGDP+\mu$ ……..……..…..(iii)

$PRT=g_0+g_1LTECH+g_2LINV+g_3LTNOR+g_4LFAST+g_5LCAST+g_6LSHCAP+g_7LMANU+g_8LINDP)\mu$...(iv)

$TNOR=h_0+h_1LEXCHR+h_2LPRT+h_3LINV+h_4LCAPU+h_5LINDP+h_6LINFLA+h_7LUNEM+h_8LGDP+\mu$.(v)

$GA=k_0 + k_1 LSUP+ k_2LCOM+ k_3LSOC+ k_4LPOL+\mu$……..(xii)

3.10 Structure of Parameter Estimates of Complete Equation

a_0-a_8 =Taxation equation

b_0 - b_6 = Strategic Investment equation

d_0-d_{12} = Exchange Rate Equation

go-g8 = Technology equation

h_0-h_8 = Turnover equation

k_0-k_4 = Goal attainment equation

3.11 Model Estimation and Validity of Instrument

For the secondary data, Ordinary least square technique was used to determine the validity and reliability of the instrument. A number of statistical econometric tests were conducted to test the validity and the reliability of the model.

The following tests of significance were be conducted:

R^2(adjusted) test – This refers to the coefficient of determination test, the measure of goodness of fit. It will be used to determine the degree to which the changes in the dependent variable were explained by the independent variables. The higher the value of R^2, the better the goodness of the regression fit to the sample.

T-test - this refers to the estimated regression coefficient test. It aids the ascertaining the statistical reliability of the regression coefficient in the model.

F-ratio - This will help us ascertain the overall significance of the model.

Durbin Watson (D-W) statistics – this helps to examine the extent of serial correlation.

Standard error – this will aid in showing the deviation from the overall mean.

For the primary data, the questionnaire was subjected to face, content and construct validity by sending it to experts to critically examine the relevance of the items to the subject matter. Face validity is done to ascertain the psychological appeal of the instrument measured (Akuezilo & Agu, 2002). Content validity measures the extent to which an instrument provides adequate coverage of the topic under study (Onyeizugbe, 2013). Test for construct validity was necessitated by some constructs present in the questionnaire. To this effect, factor analysis using PCA technique with Varimax rotation (Kaiser, 1974)was carried out to verify unidimensionality, that is, actual scale item on aninstrument, (Gefen, 2003, Gerbing & Anderson, 1988). Prior to subjectingthe data to factor analysis, all data relating to various variables measured using multiple items were subjected to Keiser-Meyer-Olkin (KMO) andBartlett's test of sampling adequacy. KMO values were greater than 0.5(>0.5) which is the recommended value (Malhotra, 2008, Kothari & Gurav 2014)). Barlett test ofSphericity was p= 0.00 which is less than the level of significance of 0.05.The results confirmed the theorized dimensionality of the study. The questions that had a minimum loading of .50 were chosen as indicated in Appendix XXI

3.12 Reliability

A reliability test was conducted to ensure that the questionnaire used for the primary data collection for this study is reliable. The Cronbach's alpha statistical method was used to carry out the analysis. The reliability test of the instrument carried out for this study using Cronbach Alpha (α) statistics using scores of 60 respondents selected Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc, who did notform part of the main study. The Cronbach's Alpha reliability coefficients indicated high levels of reliability of the instrument with the values ranging from .851 (Goal attainment) to .752 (political environment), as indicated in Appendix XXII .These values are above the acceptable minimum value of 0.50 (Cronbach, 1951) and above the recommended value of 0.7 (Nunnally &Bernstein, 1994; Polgar & Thomas, 2008)

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

In this chapter, the analysis of the data obtained on environmental scanning and performance of Food and Beverage firms in Nigeria are presented. The data are organized according to research questions and hypotheses. The focus is to run a regression so as to be equipped for interpretation and suggestions for strategic environmental scanning and performance of Food and Beverage firms in Nigeria

4.1 Data Presentation

The data used for model estimation of equations 1, 2 ,3 ,4 and 5in relation to strategic environmental scanning and performance of Food and Beverage firms is presented in Tables 4.1.1a, 4.1.1b, 4.1.1c,4.1.2a,4.1.2b, 4.1.2c, 4.1.3a,4.1.4a,4.1.4b,4.1.4c, 4.1.5a, 4.1.5b,4.1.5c, 4.1.6a, 4.1.6b, 4.1.6c, 4.1.7a, 4.1.7b, 4.1.7c, 4.1.8a, 4.1.8b, 4.1.8c, 4.1.9a, 4.1.9b, 4.1.9c, 4.1.10a, 4.1.10b, 4.1.10c, 4.1.11, 4.1.12, 4.1.13, 4.1.14, 4.1.15 below. In the equations, dependent variables include taxation, strategic investment, exchange rate, technology and turnover. The explanatory variables are market share, fixed assets, investment, export at a particular point in time, import at a particular point in time, Balance of payment, taxation, Turnover, share capital, current assets, Exchange rate, industrial production, manufacturing, inflation, share capital, unemployment, Gross Domestic Product, Technology, profitability, capacity utilization

.

Table 4.1.1a: Taxation Equation (Equation 1)

PRT=f(TAX+TNOR+MKTS+FASST+INV+EXP_{t-1}+IMP_{t-1}+BOP)μ……(eq i)

Performance Indicators of **Guinness** Nigeria Plc (1990-2015)

Year	PRTT #000	TAX #000	TNOR #000	MKTS #000	FAST #000	INVEST #000	IMP_{t-1} #000	EXP_{T-1} #000	BOP #000
1990	6766024	3449334	23861746	21.7	21147462	60308571	87020.0	121535.4	5959.6
1991	6764877	3449334	22877373	21.7	21141649	57728166	145911.4	207266.0	-65271.8
1992	6767207	3449334	23556409	21.7	21135706	61180135	166100.4	218770.1	-95271.8
1993	6765987	3449345	25151458	21.7	21165052	62017413	162788.8	206059.2	-42623.3
1994	6761437	3449301	19924252	21.7	21124189	4998950	755127.7	950661.4	-195316.3
1995	6762332	3449389	25593518	21.7	21117877	71536044	562626.6	130953.4	-53152.0
1996	6747786	3449213	29936605	21.7	21253092	64529247	845370.8	1241662.7	1076.3
1997	681246	3449566	4242634	21.7	21001598	73895559	939018.2	751856.7	-220675.1
1998	6726751	3448860	42601316	21.6	21098894	13618333	939028.6	1189006.5	326634.3
1999	6726751	3450271	42965866	21.9	21658737	43508855	986827.8	2887400.3	314139.2
2000	6704147	3447449	41711848	21.5	20247116	41994496	988846.6	2899886.2	24738.7
2001	7006486	3453094	43126235	21.5	21390974	50679977	999888.8	2929864.6	-563483.9
2002	6469619	3441804	44059515	22.6	23338121	37852094	99999.6	2905717.1	-162298.4
2003	6636335	3464384	57949795	20.4	16012252	37451419	666245	2911822.6	1124157.2
2004	7913503	3419223	47369394	21.6	24822548	38884325	588711.1	2915801.4	-1473537.1
2005	4859019	3509545	46859356	25.7	29179564	37220539	451651.9	2911113.7	-2406340.6
2006	7440102	2825700	53651781	14.0	29531969	36249393	568869.3	2038172.2	-2379004.7
2007	10691060	4193390	62265413	23.0	30124847	43183042	536410.8	2621695.8	-3482276.4
2008	11860880	5232070	69172852	25.0	36733310	3229181	518977.3	2523660.5	-2755873.9
2009	13541189	5450576	89148207	21.4	35897959	46510094	541419.1	2394509.6	-13319214.2
2010	13736359	6252376	109366976	23.2	38244541	50172162	532269.1	2513288.7	-6519121.5
2011	17927934	8249032	123663125	27.1	46098557	774000	530889	2477153.0	-7531403.2
2012	14868494	21044488	116461882	26.8	76293851	-	534859	2461650.4	-9123246.3
2013	11863726	4050356	122463538	30.6	88112852	-	532672.3	2484030.7	-7724590
2014	9573480	1585320	109202120	38.5	83714714	121331	532807	2474278	-8126413.1
2015	9012434	2275704	110195859	25.30	86238731	124645	533446.0	2473319.7	8324749.8

Sources:

Nigeria stock exchange fact book (various issues).
Publications from different breweries such as NB Plc, Guinness Nigeria Plc
CBN statistical bulletin (various issues)

Keys:

L LPRT= profitability
LTAX = log of tax
LVAT = log of value added on tax
LTNOR = log of turnover
LMKTSH = log of fixed assets
LINV = log of investment
$LEXP_{t-1}$ = log of export at a particular time
$LIMP_{t-1}$ = log of import at a particular time
LBOP = log of balance of payment

Table 4.1.1b: Taxation Equation(Equation 1)

PRT=f(TAX+TNOR+MKTSH+FASST+INV+EXP_{t-1}+IMP_{t-1}+BOP)μ……(i)

Performance Indicators Of **Nestle** Nigeria Plc (1990-2015)

Year	PRTT #'000	TAX	TNOR N'000	MKTS	FAST N'000	INVEST N'000	IMP_{T-1} N'000	EXP_{T-1} N'000	BOP N'000
1990	6032015	3687	42511404	17	9449764	297250	4571.9	10988.1	18498.2
1991	6032130	3687	42511214	17	9449617	297241	87020.0	121535.4	5959.6
1992	6032115	3687	42509057	17	9448589	297235	145911.4	207266.0	-65271.8
1993	6031799	3687	42513941	17	9451083	297271	166100.4	218770.1	-95271.8
1994	6032476	3687	42510645	17	9449187	297225	162788.8	206059.2	-42623.3
1995	6032070	3687	42502586	17	9445496	297209	755127.7	950661.4	-195316.3
1996	6030852	3687	42528593	17	9458567	297380	562626.6	130953.4	-53152.0
1997	6034506	3687.3	42500756	17	9443498	297086	845370.8	1241662.7	1076.3
1998	6023545	3687.2	42478408	17	9434422	297160	939018.2	751856.7	-220675.1
1999	6045779	3687.6	42606616	17	9497782	297895	939028.6	1189006.5	326634.3
2000	6034195	3686.7	42417243	16	9398289	296204	986827.8	2887400.3	314139.2
2001	5990660	3688.5	42411364	18	9407195	297382	988846.6	2899886.2	24738.7
2002	6112481	3684.9	42991241	15	9687862	300100	999888.8	2929864.6	-563483.9
2003	5999443	3692.2	41849126	20	9099810	291130	99999.6	2905717.1	-162298.4
2004	5860057	3677.6	42393726	10	9433913	300916	666245	2911822.6	1124157.2
2005	6477942	3706.9	44730870	10	10529772	308255	588711.1	2915801.4	-1473537.1
2006	5660329	3648.25	38422782	10	7336015	264219	451651.9	2911113.7	-2406340.6
2007	5441899	3765.5	44027525	8.79	10435952	330273	568869.3	2038172.2	-2379004.7
2008	8331599	3531	51742302	12.61	13817348	330273	536410.8	2621695.8	-3482276.4
2009	9783578	4000	68317303	14.81	25404616	330273	518977.3	2523660.56	-2755873.9
2010	12602109	5899	82726229	19.08	40241739	330273	541419.1	2394509.6	-13319214.
2011	10239095	4949.5	67595278	27.58	26487901	330273	532269.1	2513288.7	-6519121.5
2012	10874927	5424.25	72879603	38.90	30711419	330273	530889	2477153.0	-7531403.2
2013	11238710	5186.875	74400370	33.24	24533983	330273	534859	2461650.41	-9123246.3
2014	10784244	5305.5625	71625084	36.07	19298064	330273	532672.3	2484030.7	-7724590
2015	10965960	360640	72968352	34.7	24847822	330273	532807	2474278	-8126413.1

Sources:

Nigeria stock exchange fact book (various issues).
Publications from Guinness Nigeria Plc
CBN statistical bulletin (various issues)

Key:

L LPRT= profitability
LTAX = log of tax
LVAT = log of value added on tax
LTNOR = log of turnover
LMKTSH = log of fixed assets
LINV = log of investment
$LEXP_{t-1}$ = log of export at a particular time
$LIMP_{t-1}$ = log of import at a particular time
LBOP = log of balance of payment

Table 4.1.1c: Taxation Equation (Equation 1)

PRT=*f*(TAX+TNOR+MKTSH+FASST+INV+EXP_{t-1}+IMP_{t-1}+BOP)μ……(eq i)

Performance Indicators of **Cadbury** Nigeria Plc (1990-2015)

Year	PRTT N'000	TAX #000	TNOR #000	MKTS #000'	FAST #000	INVEST #000	IMP_{T-1} #000	EXP_{T-1} #000	BOP #000
1990	3033510	113044	20303077	308	15234201	550420	4571.9	10988.1	18498.2
1991	3033973	113044	20303203	308	15234041	550420	87020.0	121535.4	5959.6
1992	3034124	1130444	20302307	308	15234160	550420	145911.4	207266.0	-65271.8
1993	3032433	1130444	20303724	308	15234402	550420	166100.4	218770.1	-95271.8
1994	3035361	1130444	20303576	308	15233562	550420	162788.8	206059.2	-42623.3
1995	3034579	1130444	20299623	308	15234516	550420	755127.7	950661.4	-195316.3
1996	3027359	1130444	20307973	308	15235129	550420	562626.6	130953.4	-53152.0
1997	3044146	1130444	20303133	308	15231043	550420	845370.8	1241662.7	1076.3
1998	3032233	1143474	20287764	308	15237376	550420	939018.2	751856.7	-220675.1
1999	3005698	117413	20333022	307	15236968	550420	939028.6	1189006.5	326634.3
2000	3094508	1169535	20288613	309	15218784	550420	986827.8	2887400.3	314139.2
2001	2996492	1065290.5	20241657	304	15256376	550420	988846.6	2899886.2	24738.7
2002	2926095	1273780	20468797	315	15235744	550420	999888.8	2929864.6	-563483.9
2003	3360936	856801	20155386	292	15164233	550420	99999.6	2905717.1	-162298.4
2004	2702446	1690755	20100789	338	15369150	550420	666245	2911822.6	1124157.2
2005	2714902	2284160	21150216	247	15173849	550420	588711.1	2915801.4	-1473537.1
2006	4665459	1097350	19215152	428	14949699	550420	451651.9	2911113.7	-2406340.6
2007	726978	3470970	19937000	66	15983903	550420	568869.3	2038172.2	-2379004.7
2008	2752268	95435	24298496	244	14587945	550420	536410.8	2621695.8	-3482276.4
2009	1235917	1143523	25585571	84	14308294	1564594	518977.3	2523660.56	-2755873.9
2010	1168167	784392	29170534	88	13940148	1564594	541419.1	2394509.6	-13319214.2
2011	1718784	1382	26351534	61	14278796	1226536	532269.1	2513288.7	-6519121.5
2012	1374289	2012	27035880	50	14175746	1451908	530889	2477153.0	-7531403.2
2013	1420413	1398	27485983	56	14131563	1414346	534859	2461650.41	-9123246.3
2014	1504495	45	26957799	53	14195368	1364263	532672.3	2484030.7	-7724590
2015	1433067	249	27159887	54.5	14167559	1410172	532807	2474278	-8126413.1

Sources:

Nigeria stock exchange fact book (various issues).
Publications from Cadbury Nigeria
CBN statistical bulletin (various issues)

Keys:

L LPRT= profitability
LTAX = log of tax
LVAT = log of value added on tax
LTNOR = log of turnover
LMKTSH = log of fixed assets
LINV = log of investment
$LEXP_{t-1}$ = log of export at a particular time
$LIMP_{t-1}$ = log of import at a particular time
LBOP = log of balance of payment

Table 4.1.1a above presents data in respect of the influence of taxation on profitability of Food and Beverage firms with particular reference to Guinness Nigeria Plc. Table 4.1.1b above presents data in respect of the influence of taxation on profitability of Food and Beverage firms with particular reference to Nestle Nigeria Plc while Table 4.1.1c presents data in respect of the influence of taxation on profitability of Food and Beverage firms with particular reference to Cadbury Nigeria Plc.

The tables present the data in 10 columns. Column one presents the range of years that will be covered by the study. Column two presents data on profitability for 26 years. Column three presents the yearly data on taxation for 26 years. Column four presents data for turnover. Market share is presented in Column five for 26 year period that will be studied. Data on fixed assets is presented by column six while column seven presents data for investment for the 26 year period that will be covered in the study. Columns eight, nine and 10 present data on import at a particular time, export at a particular time and balance of payment data respectively.

Table 4.1.2a Strategic Investment Equation (Equation 2)

PRT=b (INV+ SHCAP+FASST+CASST+TNOR+MKTSH)μ…….(iii)

Performance Indicators of Guinness Nigeria Plc (1990-2015)

YR	PRT #000	TNOR #000	MKTS #000	FASST #000	INVEST #000	CASST #000	SHCAP #000
1990	6766024	23861746	21.7	21147462	60308571	10606135	353982
1991	6764877	22877373	21.7	21141649	57728166	10605413	353982
1992	6767207	23556409	21.7	21135706	61180135	10607401	353982
1993	6765987	25151458	21.7	21165052	62017413	10605591	353982
1994	6761437	19924252	21.7	21124189	4998950	10603248	353982
1995	6762332	25593518	21.7	21117877	71536044	10613364	353982
1996	6747786	29936605	21.7	21253092	64529247	10600162	353982
1997	681246	4242634	21.7	21001598	73895559	10596219	353982
1998	6726751	42601316	21.6	21098894	13618333	10643711	353982
1999	6726751	42965866	21.9	21658737	43508855	10560555	353982
2000	6704147	41711848	21.5	20247116	41994496	10584391	353982
2001	7006486	43126235	21.5	21390974	50679977	10786187	353982
2002	6469619	44059515	22.6	23338121	37852094	10311087	353982
2003	6636335	57949795	20.4	16012252	37451419	10655899	353982
2004	7913503	47369394	21.6	24822548	38884325	11391576	353982
2005	4859019	46859356	25.7	29179564	37220539	8885787	737463
2006	7440102	53651781	14.0	29531969	36249393	14186201	737463
2007	10691060	62265413	23.0	30124847	43183042	14848004	737463
2008	11860880	69172852	25.0	36733310	3229181	10759465	737463
2009	13541189	89148207	21.4	35897959	46510094	4622693	737463
2010	13736359	109366976	23.2	38244541	50172162	7679348	737463
2011	17927934	123663125	27.1	46098557	774000	7833871	737463
2012	14868494	116461882	26.8	76293851	-	2878000	737463
2013	11863726	122463538	30.6	88112852	-	3224000	752944
2014	9573480	109202120	38.5	83714714	121331	5986000	752944
2015	9012434	110195859	25.30	86238731	124645	6156000	752944

Sources:

Nigeria stock exchange fact book (various issues).
Publications from different breweries such as NB Plc, Guinness Nigeria Plc
CBN statistical bulletin (various issues)

Key

PRT profitability
INV Investment
SHCAP Share capital
FASST Fixed assets
CASST Current assets
TNOR Turnover on sales
MKSH Market share

Table 4.1.2b Strategic Investment Equation(Equation 2)

PRT=b (INV+ SHCAP+FASST+CASST+TNOR+MKTSH)μ…….(iii)

Performance Indicators of **Nestle** Nigeria Plc (1990-2015)

YR	PRT	INV	SHCAP	FASST	CASST	TNOR	MKTSH
1990	3033510	550420	286238	11675275	15234201	20303077	17
1991	3033973	550420	286240	11675928	15234041	20303203	17
1992	3034124	550420	286238	11676594	15234160	20302307	17
1993	3032433	550420	286242	11673304	15234402	20303724	17
1994	3035361	550420	286234	11677887	15233562	20303576	17
1995	3034579	550420	286250	11678590	15234516	20299623	17
1996	3027359	550420	286218	11663436	15235129	20307973	17
1997	3044146	550420	286282	11691634	15231043	20303133	17
1998	3032233	550420	286153	11680700	15237376	20287764	17
1999	3005698	550420	286411	11617975	15236968	20333022	17
2000	3094508	550420	285895	11776227	15218784	20288613	16
2001	2996492	550420	286926	11647899	15256376	20241657	18
2002	2926095	550420	284863	11429799	15235744	20468797	15
2003	3360936	550420	288989	12250982	15164233	20155386	20
2004	2702446	550420	280737	11262915	15369150	20100789	10
2005	2714902	550420	297246	10775501	15173849	21150216	10
2006	4665459	550420	264219	14714529	14949699	19215152	10
2007	726978	550420	330273	8298714	15983903	19937000	8.79
2008	2752268	550420	330273	9313261	14587945	24298496	12.61
2009	1235917	1564594	330273	10938632	14308294	25585571	14.81
2010	1168167	1564594	330273	14385696	13940148	29170534	19.08
2011	1718784	1226536	330273	11545863	14278796	26351534	27.58
2012	1374289	1451908	330273	12290064	14175746	27035880	38.90
2013	1420413	1414346	330273	12740541	14131563	27485983	33.24
2014	1504495	1364263	330273	12192156	14195368	26957799	36.07
2015	1433067	1410172	330273	12407587	14167559	27159887	34.7

Sources:

Nigeria stock exchange fact book (various issues).
Publications from different breweries such as NB Plc, Guinness Nigeria Plc
CBN statistical bulletin (various issues)

Key

PRT profitability
INV Investment
SHCAP Share capital
FASST Fixed assets
CASST Current assets
TNOR Turnover on sales
MKSH Market share

Table 4.1.2c Strategic Investment Equation (Equation 2)

PRT=b (INV+ SHCAP+FASST+CASST+TNOR+MKTSH)μ…….(iii)

Performance Indicators of Cadbury Nigeria Plc (1990-2015)

	PRT	INV	SHCAP	FASST	CASST	TNOR	MKTSH
Year	'000	'000	'000	'000	'000	'000	'000
1990	3033510	550420	550400	11675275	15234201	20303077	308
1991	3033973	550420	550400	11675928	15234041	20303203	308
1992	3034124	550420	550400	11676594	15234160	20302307	308
1993	3032433	550420	550400	11673304	15234402	20303724	308
1994	3035361	550420	550400	11677887	15233562	20303576	308
1995	3034579	550420	550400	11678590	15234516	20299623	308
1996	3027359	550420	550400	11663436	15235129	20307973	308
1997	3044146	550420	550400	11691634	15231043	20303133	308
1998	3032233	550420	550400	11680700	15237376	20287764	308
1999	3005698	550420	550400	11617975	15236968	20333022	307
2000	3094508	550420	550400	11776227	15218784	20288613	309
2001	2996492	550420	550400	11647899	15256376	20241657	304
2002	2926095	550420	550400	11429799	15235744	20468797	315
2003	3360936	550420	550400	12250982	15164233	20155386	292
2004	2702446	550420	550400	11262915	15369150	20100789	338
2005	2714902	550420	550400	10775501	15173849	21150216	247
2006	4665459	550420	550400	14714529	14949699	19215152	428
2007	726978	550420	550400	8298714	15983903	19937000	66
2008	2752268	550420	550400	9313261	14587945	24298496	244
2009	1235917	1564594	550400	10938632	14308294	25585571	84
2010	1168167	1564594	550400	14385696	13940148	29170534	88
2011	1718784	1226536	550400	11545863	14278796	26351534	61
2012	1374289	1451908	550400	12290064	14175746	27035880	50
2013	1420413	1414346	550400	12740541	14131563	27485983	56
2014	1504495	1364263	550400	12192156	14195368	26957799	53
2015	1433067	1410172	550400	12407587	14167559	27159887	54.5

Sources:

Nigeria stock exchange fact book (various issues).

Publications from Cadbury Nigeria Plc

CBN statistical bulletin (various issues)

Key

PRT profitability
INV Investment
SHCAP Share capital
FASST Fixed assets
CASST Current assets
TNOR Turnover on sales
MKSH Market share

Tables 4.1.2a, 4.1.2b and 4.1.2c above present data for the variables used for estimating strategic investment on the sustainable survival of food and beverage firms. The tables present the data in eight columns. Column one presents the range of years that will be covered by the study. Column two presents data on profitability for 26 years. Column three presents the yearly data on investment for 26 years. Column four presents data for share capital. Column five presents data on fixed assets. Data on Current assets is presented in Column six for 26 year period studied. Data on turnover is presented by column seven while column eight presents data for market share for the 26 year period that will be covered in the study.

Table 4.1.3a Exchange Rate Equation(Equation 3)

PRT=d(EXCHR+INDP+MANU+TNOR+INFL+MKTSH+SCAP+UNEM+IMPt-1+EXPt1+BOP+GDP)μ..(v)

Performance Indicators of **Guinness** Nigeria Plc (1990-2015)

YR	PRT #000	EXCHR #000	INDP #000	MANU #000	TNOR #000	INFL #000	MKTS#000	SCAP #000	UNEM #000	IMPt-1 #000	EXPt-1 #000	BOP #000	GDP #000
1990	6766024	8.038	21.7	21147462	60308571	10606135	353982	353982	99934	4571.9	10988.1	18498.2	267550
1991	6764877	9.910	21.7	21141649	57728166	10605413	353982	353982	123137	87020.0	121535.4	5959.6	312140
1992	6767207	17.10	21.7	21135706	61180135	10607401	353982	353982	97349	145911.4	207266.0	-65271.8	532614
1993	6765987	21.89	21.7	21165052	62017413	10605591	353982	353982	97349	166100.4	218770.1	-95271.8	683870
1994	6761437	21.89	21.7	21124189	4998950	10603248	353982	353982	183540	162788.8	206059.2	-42623.3	899863
1995	6762332	21.89	21.7	21117877	71536044	10613364	353982	353982	100400	755127.7	950661.4	-195316.3	1933212
1996	6747786	21.89	21.7	21253092	64529247	10600162	353982	353982	114672	562626.6	130953.4	-53152.0	2702719
1997	681246	22.89	21.7	21001598	73895559	10596219	353982	353982	152693	845370.8	1241662.7	1076.3	2801973
1998	6726751	22.89	21.6	21098894	13618333	10643711	353982	353982	152693	939018.2	751856.7	-220675.1	2708431
1999	6726751	92.69	21.9	21658737	43508855	10560555	353982	353982	184103	939028.6	1189006.5	326634.3	3194015
2000	6704147	102.1	21.5	20247116	41994496	10584391	353982	353982	149693	986827.8	2887400.3	314139.2	4582127
2001	7006486	111.9	21.5	21390974	50679977	10786187	353982	353982	190328	988846.6	2899886.2	24738.7	4725086
2002	6469619	121.9	22.6	23338121	37852094	10311087	353982	353982	170287	999888.8	2929864.6	-563483.9	6912381
2003	6636335	129.4	20.4	16012252	37451419	10655899	353982	353982	180311	99999.6	2905717.1	-162298.4	8487032
2004	7913503	129.4	21.6	24822548	38884325	11391576	353982	353982	180309	666245	2911822.6	1124157.2	11411067
2005	4859019	133.5	25.7	29179564	37220539	8885787	737463	737463	176969	588711.1	2915801.4	-1473537.1	14572239
2006	7440102	132.1	14.0	29531969	36249393	14186201	737463	737463	179196	451651.9	2911113.7	-2406340.6	18564595
2007	10691060	128.7	23.0	30124847	43183042	14848004	737463	737463	178825	568869.3	2038172.2	-2379004.7	20657318
2008	11860880	131.4	25.0	36733310	3229181	10759465	737463	737463	178330	536410.8	2621695.8	-3482276.4	28842171
2009	13541189	130.7	21.4	35897959	46510094	4622693	737463	737463	178784	518977.3	2523660.56	-2755873.9	22688028
2010	13736359	130.3	23.2	38244541	50172162	7679348	737463	737463	178647	541419.1	2394509.6	13319214.2	24062505
2011	17927934	155.8	27.1	46098557	774000	7833871	737463	737463	178586	532269.1	2513288.7	-6519121.5	25197568
2012	14868494	156.7	26.8	76293851	-	2878000	737463	737463	178616	530889	2477153.0	-7531403.2	24630037
2013	11863726	156.7	30.6	88112852	-	3224000	752944	752944	178616	534859	2461650.41	-9123246.3	24913802
2014	9573480	157.3	38.5	83714714	121331	5986000	752944	752944	178602	532672.3	2484030.7	-7724590	13688403
2015	9012434	157.0	25.30	86238731	124645	6156000	752944	752944	178609	532807	2474278	-8126413.1	13688403

Source: Nigerian Stock Exchange fact book (various issues)
Publications of Guinness Nigeria Plc
CBN statistical Bulletin

Key:

PRT = profitability
LEXCHR = log of exchange rate
LINDP = log of industrial production
LMANU = log of manufacturing
LTNOR = log of turnover
LINFLA = log of inflation
LMKTSH = log of market share
LSHCAP = log of share capital
LUNEM = log of unemployment
$LIMP_{t-1}$ = log of import at a particular time
$LEXP_{t-1}$ = log of export at a particular time
LBOP = log of Balance of Payment
LGDP = log of Gross Domestic Product

Table 4.1.3b Exchange Rate Equation (Equation 3)

PRT=d(EXCHR+INDP+MANU+TNOR+INFL+MKTSH+SCAP+UNEM+IMPt-1+EXPt1+BOP+GDP)μ….(v)

Performance Indicators of **Nestle** Nigeria Plc (1990-2015)

YR	PRT	EXCHR	INDP	MANU	TNOR	INFL	MKTSH	SCAP	UNEM	IMP_{t-1}	EXP_{t-1}	BOP	GDP
1990	3033510	8.038	168.6	14702	20303077	10606135	17	286238	99934	4571.9	10988.1	18498.2	267550
1991	3033973	9.910	166.54	19356	20303203	10605413	17	286240	123137	87020.0	121535.4	5959.6	312140
1992	3034124	17.10	170.8	27004	20302307	10607401	17	286238	97349	145911.4	207266.0	-65271.8	532614
1993	3032433	21.89	162.28	38987	20303724	10605591	17	286242	97349	166100.4	218770.1	-95271.8	683870
1994	3035361	21.89	179.35	62898	20303576	10603248	17	286234	183540	162788.8	206059.2	-42623.3	899863
1995	3034579	21.89	407.20	105290	20299623	10613364	17	286250	100400	755127.7	950661.4	-195316.3	1933212
1996	3027359	21.89	570.34	132897	20307973	10600162	17	286218	114672	562626.6	130953.4	-53152.0	2702719
1997	3044146	22.89	554.01	144107	20303133	10596219	17	286282	152693	845370.8	1241662.7	1076.3	2801973
1998	3032233	22.89	443.34	141496	20287764	10643711	17	286153	152693	939018.2	751856.7	-220675.1	2708431
1999	3005698	92.69	558.52	150947	20333022	10560555	17	286411	184103	939028.6	1189006.5	326634.3	3194015
2000	3094508	102.1	985.99	168037	20288613	10584391	16	285895	149693	986827.8	2887400.3	314139.2	4582127
2001	2996492	111.9	832.82	199079	20241657	10786187	18	286926	190328	988846.6	2899886.2	24738.7	4725086
2002	2926095	121.9	865.43	236826	20468797	10311087	15	284863	170287	999888.8	2929864.6	-563483.9	6912381
2003	3360936	129.4	1176.72	287739	20155386	10655899	20	288989	180311	99999.6	2905717.1	-162298.4	8487032
2004	2702446	129.4	1273.10	349316	20100789	11391576	10	280737	180309	666245	2911822.6	1124157.2	11411067
2005	2714902	133.5	1689.06	412707	21150216	8885787	10	297246	176969	588711.1	2915801.4	-1473537.1	14572239
2006	4665459	132.1	2086.62	478524	19215152	14186201	10	264219	179196	451651.9	2911113.7	-2406340.6	18564595
2007	726978	128.7	2196.50	520883	19937000	14848004	8.79	330273	178825	568869.3	2038172.2	-2379004.7	20657318
2008	2752268	131.4	263939	585573	24298496	10759465	12.61	330273	178330	536410.8	2621695.8	-3482276.4	28842171
2009	1235917	130.7	2316.58	612614	25585571	4622693	14.81	330273	178784	518977.3	2523660.56	-2755873.9	22688028
2010	1168167	130.3	442413	647823	29170534	7679348	19.08	330273	178647	541419.1	2394509.6	13319214.2	24062505
2011	1718784	155.8	3994.32	615235	26351534	7833871	27.58	330273	178586	532269.1	2513288.7	-6519121.5	25197568
2012	1374289	156.7	3650.54	625122	27035880	2878000	38.90	330273	178616	530889	2477153.0	-7531403.2	24630037
2013	1420413	156.7	3671.09	622650	27485983	3224000	33.24	330273	178616	534859	2461650.41	-9123246.3	24913802
2014	1504495	157.3	3772	621415	26957799	5986000	36.07	330273	178602	532672.3	2484030.7	-7724590	13688403
2015	1433067	157.0	3721.54	621415	27159887	6156000	34.7	330273	178609	532807	2474278	-8126413.1	13688403

Source: Nigerian Stock Exchange fact book (various issues)
Publications of Nestle Nigeria Plc
CBN statistical Bulletin

Key:

PRT = profitability
LEXCHR = log of exchange rate
LINDP = log of industrial production
LMANU = log of manufacturing
LTNOR = log of turnover
LINFLA = log of inflation
LMKTSH = log of market share
LSHCAP = log of share capital
LUNEM = log of unemployment
$LIMP_{t-1}$ = log of import at a particular time
$LEXP_{t-1}$ = log of export at a particular time
LBOP = log of Balance of Payment
LGDP = log of Gross Domestic Product

Table 4.1.3c Exchange Rate Equation (Equation 3)

PRT=d(EXCHR+INDP+MANU+TNOR+INFL+MKTSH+SCAP+UNEM+IMPt-1+EXPt1+BOP+GDP)μ….(v)

Performance Indicators of **Cadbury** Nigeria Plc (1990-2015)

	PRT	EXCHR	INDP	MANU	TNOR	INFL	MKTSH	SCAP	UNEM	IMP_{t-1}	EXP_{t-1}	BOP	GDP
YR	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000
1990	3033510	8.038	168.6	14702	20303077	10606135	308	550400	99934	4571.9	10988.1	18498.2	267550
1991	3033973	9.910	166.54	19356	20303203	10605413	308	550400	123137	87020.0	121535.4	5959.6	312140
1992	3034124	17.10	170.8	27004	20302307	10607401	308	550400	97349	145911.4	207266.0	-65271.8	532614
1993	3032433	21.89	162.28	38987	20303724	10605591	308	550400	97349	166100.4	218770.1	-95271.8	683870
1994	3035361	21.89	179.35	62898	20303576	10603248	308	550400	183540	162788.8	206059.2	-42623.3	899863
1995	3034579	21.89	407.20	105290	20299623	10613364	308	550400	100400	755127.7	950661.4	-195316.3	1933212
1996	3027359	21.89	570.34	132897	20307973	10600162	308	550400	114672	562626.6	130953.4	-53152.0	2702719
1997	3044146	22.89	554.01	144107	20303133	10596219	308	550400	152693	845370.8	1241662.7	1076.3	2801973
1998	3032233	22.89	443.34	141496	20287764	10643711	308	550400	152693	939018.2	751856.7	-220675.1	2708431
1999	3005698	92.69	558.52	150947	20333022	10560555	307	550400	184103	939028.6	1189006.5	326634.3	3194015
2000	3094508	102.1	985.99	168037	20288613	10584391	309	550400	149693	986827.8	2887400.3	314139.2	4582127
2001	2996492	111.9	832.82	199079	20241657	10786187	304	550400	190328	988846.6	2899886.2	24738.7	4725086
2002	2926095	121.9	865.43	236826	20468797	10311087	315	550400	170287	999888.8	2929864.6	-563483.9	6912381
2003	3360936	129.4	1176.72	287739	20155386	10655899	292	550400	180311	99999.6	2905717.1	-162298.4	8487032
2004	2702446	129.4	1273.10	349316	20100789	11391576	338	550400	180309	666245	2911822.6	1124157.2	11411067
2005	2714902	133.5	1689.06	412707	21150216	8885787	247	550400	176969	588711.1	2915801.4	-1473537.1	14572239
2006	4665459	132.1	2086.62	478524	19215152	14186201	428	550400	179196	451651.9	2911113.7	-2406340.6	18564595
2007	726978	128.7	2196.50	520883	19937000	14848004	66	550400	178825	568869.3	2038172.2	-2379004.7	20657318
2008	2752268	131.4	263939	585573	24298496	10759465	244	550400	178330	536410.8	2621695.8	-3482276.4	28842171
2009	1235917	130.7	2316.58	612614	25585571	4622693	84	550400	178784	518977.3	2523660.56	-2755873.9	22688028
2010	1168167	130.3	442413	647823	29170534	7679348	88	550400	178647	541419.1	2394509.6	13319214.2	24062505
2011	1718784	155.8	3994.32	615235	26351534	7833871	61	550400	178586	532269.1	2513288.7	-6519121.5	25197568
2012	1374289	156.7	3650.54	625122	27035880	2878000	50	550400	178616	530889	2477153.0	-7531403.2	24630037
2013	1420413	156.7	3671.09	622650	27485983	3224000	56	550400	178616	534859	2461650.41	-9123246.3	24913802
2014	1504495	157.3	3772	621415	26957799	5986000	53	550400	178602	532672.3	2484030.7	-7724590	13688403
2015	1433067	157.0	3721.54	621415	27159887	6156000	54.5	550400	178609	532807	2474278	-8126413.1	13688403

Source: Nigerian Stock Exchange fact book (various issues)
Publications of Cadbury Nigeria Plc
CBN statistical Bulletin

Key:

PRT = profitability
LEXCHR = log of exchange rate
LINDP = log of industrial production
LMANU = log of manufacturing
LTNOR = log of turnover
LINFLA = log of Inflation
LMKTSH = log of market share
LSHCAP = log of share capital
LUNEM = log of unemployment
$LIMP_{t-1}$ = log of import at a particular time
$LEXP_{t-1}$ = log of export at a particular time
LBOP = log of Balance of Payment
LGDP = log of Gross Domestic Production

Tables 4.1.3a, 4.1.3b and 4.1.3c above present data for the variables used for estimating on the profitability of Food and Beverage firms with particular reference to Guinness Nigeria Plc. Table 4.1.3b presents data in respect of influence of exchange rate instability on the profitability of Food and Beverage firms with particular reference to Nestle Nigeria Plc.Table 4.1.3c presents data in respect of influence of exchange rate on the profitability of Food and Beverage firms with particular reference to Cadbury Nigeria Plc.The tables present the data in 13 columns. Column one presents the range of years that will be covered by the study. Column two presents data on profitability for 26 years. Column three presents the yearly data on exchange rate for 26 years. Column four presents data on industrial production. The data for manufacturing is presented in Column five. Data for turnover is also shown in column six. Column seven presents data on market share, column eight presents dataon share capital. Data for unemployment is presented in column nine. Data for export at a particular point time, import at a particular point time, balance of payment are and GDP are all captured by column 10, 11,12 and 13 respectively

Table 4.1.4a Technology Equation (Equation 4):

PRT=f (TECH+INV+TNOR+FASST+CASST+SHCAP+MANU+INDP)μ…….(iv)

Performance Indicators of **Guinness** Nigeria Plc (1990-2015)

YR	PRT	TECH	INV	TNOR	FASST	CASST	SHCAP	MANU	INDP
1990	6766024	0	60308571	23861746	21147469	10606135	353982	14702	4138340
1991	6764877	1	57728166	22877373	21141649	10605413	353982	19356	6208390
1992	6767207	2	61180135	23556409	21135706	10607401	353982	27004	6206630
1993	6765987	3	62017413	25151458	21165052	10605591	353982	38987	6203386
1994	6761437	4	49986950	19924252	21124189	10603248	353982	62898	6215154
1995	6762332	5	71536044	25593518	21117877	10613364	353982	105290	6201350
1996	6747786	6	64529247	29936605	21253092	10600162	353982	132897	6193664
1997	681246	7	73895559	4242634	21001598	10596219	353982	144107	6250459
1998	6726751	8	136183328	42601316	210988942	10643711	353982	141496	6159937
1999	6726751	9	43508855	42965866	21658737	10560555	353982	150947	6170597
2000	6704147	10	41994496	41711848	20247116	10584391	353982	168037	6420843
2001	7006486	11	50679977	43126235	21390974	10786187	353982	199079	5888371
2002	6469619	12	37852094	44059515	23338121	10311087	353982	236826	6202577
2003	6636335	13	37451419	37949795	16012252	10655899	353982	287739	7171597
2004	7913503	14	38884325	47369394	24822548	11391576	353982	349316	4290938
2005	4859019	15	37220539	46859356	29179564	8885787	737463	412707	7145195
2006	7440102	16	36249393	53651781	29531969	14186201	737463	478524	10078657
2007	10691060	17	43183042	62265413	30124847	14848004	737463	520883	4719762
2008	11860880	18	3229181	69172852	36733310	10759465	737463	585573	6637165
2009	13541189	19	46510094	89148207	35897959	4622693	737463	612614	18879045
2010	13736359	20	50172162	109366975	38244541	7679348	737463	647823	11061941
2011	17927934	21	774000	123663125	46098557	7833871	737463	615235	12168136
2012	14868494	22	-	70293769	76293851	2878000	737463	625122	14036374
2013	11863726	23	-	122463538	88112852	3224000	752944	622650	12422150
2014	9573480	24	121331	114503408	83714714	5986000	752944	621415	12875686
2015	9012434	25	124645	118224769	86238731	6156000	752944	621415	13111537

Source: Nigerian Stock Exchange fac book (various issues
Publicatios of Guinness Nigeria Plc
CBN statistical Bulletin

key

PRT = profitability
LTECH = log of technology
LINV = log of investment
LTNOR= log of turnover
LFASST = log of fixed assets
LCASST = log of current assets
LSHCAP = log of share capital
LMANU = log of manufacturing
LINDP = log of industrial production

Table 4.1.4b Technology Equation (Equation 4)

PRT=f (TECH+INV+TNOR+FASST+CASST+SHCAP+MANU+INDP)μ…….(iv)

Performance Indicators of Nestle Nigeria Plc (1990-2015)

	PRT	TECH	INV	TNOR	FASST	CASST	SHCAP	MANU	INDP
YR	#'000	#'000	#'000	#'000	#'000	#'000	#'000	#'000	#'000
1990	3033510	0	297250	42511404	11675275	15234201	286238	14702	4138340
1991	3033973	1	297241	42511214	11675928	15234041	286240	19356	6208390
1992	3034124	2	297235	42509057	11676594	15234160	286238	27004	6206630
1993	3032433	3	297271	42513941	11673304	15234402	286242	38987	6203386
1994	3035361	4	297225	42510645	11677887	15233562	286234	62898	6215154
1995	3034579	5	297209	42502586	11678590	15234516	286250	105290	6201350
1996	3027359	6	297380	42528593	11663436	15235129	286218	132897	6193664
1997	3044146	7	297086	42500756	11691634	15231043	286282	144107	6250459
1998	3032233	8	297160	42478408	11680700	15237376	286153	141496	6159937
1999	3005698	9	297895	42606616	11617975	15236968	286411	150947	6170597
2000	3094508	10	296204	42417243	11776227	15218784	285895	168037	6420843
2001	2996492	11	297382	42411364	11647899	15256376	286926	199079	5888371
2002	2926095	12	300100	42991241	11429799	15235744	284863	236826	6202577
2003	3360936	13	291130	41849126	12250982	15164233	288989	287739	7171597
2004	2702446	14	300916	42393726	11262915	15369150	280737	349316	4290938
2005	2714902	15	308255	44730870	10775501	15173849	297246	412707	7145195
2006	4665459	16	264219	38422782	14714529	14949699	264219	478524	10078657
2007	726978	17	330273	44027525	8298714	15983903	330273	520883	4719762
2008	2752268	18	330273	51742302	9313261	14587945	330273	585573	6637165
2009	1235917	19	330273	68317303	10938632	14308294	330273	612614	18879045
2010	1168167	20	330273	82726229	14385696	13940148	330273	647823	11061941
2011	1718784	21	330273	67595278	11545863	14278796	330273	615235	12168136
2012	1374289	22	330273	72879603	12290064	14175746	330273	625122	14036374
2013	1420413	23	330273	74400370	12740541	14131563	330273	622650	12422150
2014	1504495	24	330273	71625084	12192156	14195368	330273	621415	12875686
2015	1433067	25	330273	72968352	12407587	14167559	330273	621415	13111537

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Publications of Nestle Nigeria Plc
CBN statistical Bulletin

key

PRT = profitability
LTECH = log of technology
LINV = log of investment
LTNOR= log of turnover
LFASST = log of fixed assets
LCASST = log of current assets
LSHCAP = log of share capital
LMANU = log of manufacturing
LINDP = log of industrial production

Table 4.1.4c Technology Equation (Equation 4)

PRT=f (TECH+INV+TNOR+FASST+CASST+SHCAP+MANU+INDP)µ…….(iv)

Performance Indicators of **Cadbury** Nigeria Plc (1990-2015)

YR	PRT	TECH	INV	TNOR	FASST	CASST	SHCAP	MANU	INDP
1990	3033510	0	550420	20303077	15234201	11675275	550400	14702	4138340
1991	3033973	1	550420	20303203	15234041	11675928	550400	19356	6208390
1992	3034124	2	550420	20302307	15234160	11676594	550400	27004	6206630
1993	3032433	3	550420	20303724	15234402	11673304	550400	38987	6203386
1994	3035361	4	550420	20303576	15233562	11677887	550400	62898	6215154
1995	3034579	5	550420	20299623	15234516	11678590	550400	105290	6201350
1996	3027359	6	550420	20307973	15235129	11663436	550400	132897	6193664
1997	3044146	7	550420	20303133	15231043	11691634	550400	144107	6250459
1998	3032233	8	550420	20287764	15237376	11680700	550400	141496	6159937
1999	3005698	9	550420	20333022	15236968	11617975	550400	150947	6170597
2000	3094508	10	550420	20288613	15218784	11776227	550400	168037	6420843
2001	2996492	11	550420	20241657	15256376	11647899	550400	199079	5888371
2002	2926095	12	550420	20468797	15235744	11429799	550400	236826	6202577
2003	3360936	13	550420	20155386	15164233	12250982	550400	287739	7171597
2004	2702446	14	550420	20100789	15369150	11262915	550400	349316	4290938
2005	2714902	15	550420	21150216	15173849	10775501	550400	412707	7145195
2006	4665459	16	550420	19215152	14949699	14714529	550400	478524	10078657
2007	726978	17	550420	19937000	15983903	8298714	550400	520883	4719762
2008	2752268	18	550420	24298496	14587945	9313261	550400	585573	6637165
2009	1235917	19	1564594	25585571	14308294	10938632	550400	612614	18879045
2010	1168167	20	1564594	29170534	13940148	14385696	550400	647823	11061941
2011	1718784	21	1226536	26351534	14278796	11545863	550400	615235	12168136
2012	1374289	22	1451908	27035880	14175746	12290064	550400	625122	14036374
2013	1420413	23	1414346	27485983	14131563	12740541	550400	622650	12422150
2014	1504495	24	1364263	26957799	14195368	12192156	550400	621415	12875686
2015	1433067	25	1410172	27159887	14167559	12407587	550400	621415	13111537

Source: Nigerian Stock Exchange fact book (various issues)
Publicatios of Cadbury Nigeria Plc
CBN statistical Bulletin

key

PRT = profitability
LTECH = log of technology
LINV = log of investment
LTNOR= log of turnover
LFASST = log of fixed assets
LCASST = log of current assets
LSHCAP = log of share capital
LMANU = log of manufacturing
LINDP = log of industrial production

Tables 4.1.4a, 4.1.4b and 4.1.4c above present data for the variables used for estimating technology equation. The tables present the data in 10 columns. Column one presents the range of years that will be covered by the study. Column two presents data on profitability for 26 years. Column three presents the yearly data on technology for 26 years. Column four presents data on investment. The data for turnover is presented in Column five. Data for fixed assets is also shown in column six. Column seven presents data on current assets, column eight presents data on share capital. Data for manufacturing is presented in column 9. While data for industrial production is presented in column 10

Table 4.1.5a Turnover Equation (Equation 5)

TNOR=h (EXCHR+ PRT+ INV+ CAPU+ INDP+ INFLA+UNEM+ GDP) μ……(v)

Performance Indicators for Guinness Plc

YR	TNOR	EXCHR	PRT	INV	CAPU	INDP	INFLA	UNEM	GDP
1990	23861746	8.038	6766024	60308571	52.0	4138340	8	99934	267550
1991	22877373	9.910	6764877	57728166	52.8	6208390	13	123137	312140
1992	23556409	17.10	6767207	61180135	52.7	6206630	45	97349	532614
1993	25151458	21.89	6765987	62017413	52.7	6203386	57	97349	683870
1994	19924252	21.89	6761437	4998950	52.6	6215154	57	183540	899863
1995	25593518	21.89	6774193	71536044	52.5	6201350	73	100400	1933212
1996	29936605	21.89	6762332	64529247	52.4	6193664	29	114672	2702719
1997	4242634	22.89	6747786	73895559	52.3	6250459	60	152693	2801973
1998	42601316	22.89	681246	13618333	52.2	6159937	10	152693	2708431
1999	42965866	92.69	6726751	43508855	52	6170597	6	184103	3194015
2000	41711848	102.1	6704147	41994496	51.8	6420843	6	149693	4582127
2001	43126235	111.9	7006486	50679977	51.5	5888371	19	190328	4725086
2002	44059515	121.9	6469619	37852094	51.2	6202577	13	170287	6912381
2003	37949795	129.4	6636335	37451419	51.0	7171597	14	180311	8487032
2004	47369394	129.4	7913503	38884325	50.6	4290938	15	180309	11411067
2005	46859356	133.5	4859019	37220539	50.8	7145195	18	176969	14572239
2006	53651781	132.1	7440102	36249393	50.9	10078657	8	179196	18564595
2007	62265413	128.7	10691060	43183042	51.0	4719762	14	178825	20657318
2008	69172852	131.4	11860880	3229181	51.3	6637165	13	178330	28842171
2009	89148207	130.7	13541189	46510094	51.4	18879045	12	178784	22688028
2010	109366975	130.3	13736359	50172162	51.1	11061941	13	178647	24062505
2011	123663125	155.8	17927934	774000	51.3	12168136	12	178586	25197568
2012	70293769	156.7	14868494	-	51.3	14036374	12	178616	24630037
2013	122463538	156.7	11863726	-	51.3	12422150	9	178616	24913802
2014	114503408	157.3	9573480	121331	51.3	12875686	10	178602	13688403
2015	118224769	157.0	15673453	124645	51.3	13111537	10	178609	13688403

Sources: Nigeria Stock exchange fact book(various issues)
Publications of Guinness Nigeria Ltd
CBN statistical bulletin

Key

TNOR = turnover
LEXCHR = log of exchange rate
LPRT = log of profitability
LINV = log of investment
LCAPU = log of capacity utilization
LINDP = log of industrial production
LINFLA = log of inflation
LUMEM = log of unemployment
LGDP = log Gross Domestic Product

Table 4.1.5b Turnover Equation (Equation5)

TNOR=h (EXCHR+ PRT+ INV+ CAPU+ INDP+ INFLA+UNEM+ GDP) μ……(v)

Performance Indicators for **Nestle** Plc

YR	TNOR	EXCHR	PRT	INV	CAPU	INDP	INFLA	UNEM	GDP
1990	42511404	8.038	6032015	297250	267.55	4138340	8	99934	267550
1991	42511214	9.910	6032130	297241	312.14	6208390	13	123137	312140
1992	42509057	17.10	6032115	297235	532.61	6206630	45	97349	532614
1993	42513941	21.89	6031799	297271	683.87	6203386	57	97349	683870
1994	42510645	21.89	6032476	297225	899.86	6215154	57	183540	899863
1995	42502586	21.89	6032070	297209	1933.21	6201350	73	100400	1933212
1996	42528593	21.89	6030852	297380	2702.72	6193664	29	114672	2702719
1997	42500756	22.89	6034506	297086	2801.97	6250459	60	152693	2801973
1998	42478408	22.89	6023545	297160	2708.43	6159937	10	152693	2708431
1999	42606616	92.69	6045779	297895	3194.01	6170597	6	184103	3194015
2000	42417243	102.1	6034195	296204	4582.13	6420843	6	149693	4582127
2001	42411364	111.9	5990660	297382	4725.09	5888371	19	190328	4725086
2002	42991241	121.9	6112481	300100	6912.38	6202577	13	170287	6912381
2003	41849126	129.4	5999443	291130	8487.03	7171597	14	180311	8487032
2004	42393726	129.4	5860057	300916	8487.03	4290938	15	180309	11411067
2005	44730870	133.5	6477942	308255	11411.07	7145195	18	176969	14572239
2006	38422782	132.1	5660329	264219	14572.24	10078657	8	179196	18564595
2007	44027525	128.7	5441899	330273	18564.80	4719762	14	178825	20657318
2008	51742302	131.4	8331599	330273	20657.32	6637165	13	178330	28842171
2009	68317303	130.7	9783578	330273	24296.33	18879045	12	178784	22688028
2010	82726229	130.3	12602109	330273	24794.24	11061941	13	178647	24062505
2011	67595278	155.8	10239095	330273	33984.75	12168136	12	178586	25197568
2012	72879603	156.7	10874927	330273	37409.86	14036374	12	178616	24630037
2013	74400370	156.7	11238710	330273	40544.10	12422150	9	178616	24913802
2014	71625084	157.3	10784244	330273	9493.8	12875686	10	178602	13688403
2015	72968352	157.0	10965960	330273	25018.95	13111537	10	178609	13688403

Sources: Nigeria Stock exchange fact book(various issues)
Publications of Guinness Nigeria Ltd
CBN statistical bulletin

Key

h_0-h_8 = parameter estimate
TNOR = turnover
LEXCHR = log of exchange rate
LPRT = log of profitability
LINV = log of investment
LCAPU = log of capacity utilization
LINDP = log of industrial production
LINFLA = log of inflation
LUMEM = log of unemployment
LGDP = log Gross Domestic Product

Table 4.1.5c Turnover Equation (Equation 5)

TNOR=h (EXCHR+ PRT+ INV+ CAPU+ INDP+ INFLA+UNEM+ GDP) μ……(v)

Performance Indicators for **Cadbury** Plc

YR	TNOR	EXCHR	PRT	INV	CAPU	INDP	INFLA	UNEM	GDP
1990	42511404	8.038	6032015	297250	267.55	4138340	8	99934	267550
1991	42511214	9.910	6032130	297241	312.14	6208390	13	123137	312140
1992	42509057	17.10	6032115	297235	532.61	6206630	45	97349	532614
1993	42513941	21.89	6031799	297271	683.87	6203386	57	97349	683870
1994	42510645	21.89	6032476	297225	899.86	6215154	57	183540	899863
1995	42502586	21.89	6032070	297209	1933.21	6201350	73	100400	1933212
1996	42528593	21.89	6030852	297380	2702.72	6193664	29	114672	2702719
1997	42500756	22.89	6034506	297086	2801.97	6250459	60	152693	2801973
1998	42478408	22.89	6023545	297160	2708.43	6159937	10	152693	2708431
1999	42606616	92.69	6045779	297895	3194.01	6170597	6	184103	3194015
2000	42417243	102.1	6034195	296204	4582.13	6420843	6	149693	4582127
2001	42411364	111.9	5990660	297382	4725.09	5888371	19	190328	4725086
2002	42991241	121.9	6112481	300100	6912.38	6202577	13	170287	6912381
2003	41849126	129.4	5999443	291130	8487.03	7171597	14	180311	8487032
2004	42393726	129.4	5860057	300916	8487.03	4290938	15	180309	11411067
2005	44730870	133.5	6477942	308255	11411.07	7145195	18	176969	14572239
2006	38422782	132.1	5660329	264219	14572.24	10078657	8	179196	18564595
2007	44027525	128.7	5441899	330273	18564.80	4719762	14	178825	20657318
2008	51742302	131.4	8331599	330273	20657.32	6637165	13	178330	28842171
2009	68317303	130.7	9783578	330273	24296.33	18879045	12	178784	22688028
2010	82726229	130.3	12602109	330273	24794.24	11061941	13	178647	24062505
2011	67595278	155.8	10239095	330273	33984.75	12168136	12	178586	25197568
2012	72879603	156.7	10874927	330273	37409.86	14036374	12	178616	24630037
2013	74400370	156.7	11238710	330273	40544.10	12422150	9	178616	24913802
2014	71625084	157.3	10784244	330273	9493.8	12875686	10	178602	13688403
2015	72968352	157.0	10965960	330273	25018.95	13111537	10	178609	13688403

Sources: Nigeria Stock exchange fact book(various issues)
Publications of Guinness Nigeria Ltd
CBN statistical bulletin

key

h_0-h_8 = parameter estimate
TNOR = turnover
LEXCHR = log of exchange rate
LPRT = log of profitability
LINV = log of investment
LCAPU = log of capacity utilization
LINDP = log of industrial production
LINFLA = log of inflation
LUMEM = log of unemployment
LGDP = log Gross Domestic Product

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Tables 4.1.5a, 4.1.5b and 4.1.5c above present data for the variables used for estimating turnover (sales) equation.. The tables present the data in 10 columns. Column 1 presents the range of years that will be covered by the study. Column 2 presents data on turnover for 26 years. Column 3 presents the yearly data on exchange rate for 26 years. Column 4 presents data on profitability. The data for investment is presented in Column 5. Data for capacity utilization is also shown in column 6. Column 7 presents data on industrial production, column 8 presents data on inflation. Data for unemployment is presented in column 9 while Data for Gross Domestic Product is presents in column 10.

Disaggregated Stylized Facts of Selected Food and Beverage Firms (1990-2015)

Table 4.1.6a Disaggregated stylized facts of Guinness Nigeria Plc - Taxation

Year	PRTT #000	TAX #000	TNOR #000	MKTS #000	FAST #000	INVEST #000	IMP_{t-1} #000	EXP_{T-1} #000	BOP #000
1990	6766024	3449334	23861746	21.7	21147462	60308571	87020.0	121535.4	5959.6
1995	6762332	3449389	25593518	21.7	21117877	71536044	562626.6	130953.4	-53152.0
2000	6704147	3447449	41711848	21.5	20247116	41994496	988846.6	2899886.2	24738.7
2005	4859019	3509545	46859356	25.7	29179564	37220539	451651.9	2911113.7	-2406340.6
2010	13736359	6252376	109366976	23.2	38244541	50172162	532269.1	2513288.7	-6519121.5
2015	9012434	2275704	110195859	25.30	86238731	124645	533446.0	2473319.7	8324749.8

Table 4.1.6b Disaggregated stylized facts of Nestle Nigeria Plc Taxation

	PRTT N'000	TAX N'000	TNOR N'000	MKTS N'000	FAST N'000	INVEST N'000	IMP N'000	EXP N'000	BOP
1990	6032015	3687	42511404	17	9449764	297250	4571.9	10988.1	18498.2
1995	6032070	3687	42502586	17	9445496	297209	755127.7	950661.4	-195316.3
2000	6034195	3686.7	42417243	16	9398289	296204	986827.8	2887400.3	314139.2
2005	6477942	3706.9	44730870	10	10529772	308255	588711.1	2915801.4	-1473537.1
2010	12602109	5899	82726229	19.08	40241739	330273	541419.1	2394509.6	-13319214.
2015	10965960	360640	72968352	34.7	24847822	330273	532807	2474278	-8126413.1

Table 4.1.6c Disaggregated stylized facts of Cadbury Nigeria Plc Taxation

Year	PRTT N'000	TAX #000	TNOR #000	MKTS #000'	FAST #000	INVEST #000	IMP_{T-1} #000	EXP_{T-1} #000	BOP #000
1990	3033510	113044	20303077	308	15234201	550420	4571.9	10988.1	18498.2
1995	3034579	1130444	20299623	308	15234516	550420	755127.7	950661.4	-195316.3
2000	3094508	1169535	20288613	309	15218784	550420	986827.8	2887400.3	314139.2
2005	2714902	2284160	21150216	247	15173849	550420	588711.1	2915801.4	-1473537.1
2010	1168167	784392	29170534	88	13940148	1564594	541419.1	2394509.6	-13319214.2
2015	1433067	249	27159887	54.5	14167559	1410172	532807	2474278	-8126413.1

Table 4.1.7aDisaggregated stylized facts of Guinness Nigeria Plc-Strategic Investment Equation

YR	PRT #000	TNOR #000	MKTS #000	FASST #000	INVEST #000	CASST #000	SHCAP #000
1990	6766024	23861746	21.7	21147462	60308571	10606135	353982
1995	6762332	25593518	21.7	21117877	71536044	10613364	353982
2000	6704147	41711848	21.5	20247116	41994496	10584391	353982
2005	4859019	46859356	25.7	29179564	37220539	8885787	737463
2010	13736359	109366976	23.2	38244541	50172162	7679348	737463
2015	9012434	110195859	25.30	86238731	124645	6156000	752944

Table 4.1.7bDisaggregatedStylized Facts of Nestle Nigeria Plc-Strategic Investment Equation

YR	PRT	INV	SHCAP	FASST	CASST	TNOR	MKTSH
1990	3033510	550420	286238	11675275	15234201	20303077	17
1995	3034579	550420	286250	11678590	15234516	20299623	17
2000	3094508	550420	285895	11776227	15218784	20288613	16
2005	2714902	550420	297246	10775501	15173849	21150216	10
2010	1168167	1564594	330273	14385696	13940148	29170534	19.08
2015	1433067	1410172	330273	12407587	14167559	27159887	34.7

Table 4.1.7c Disaggregated stylized Facts of Cadbury Nigeria Plc-Strategic Investment

	PRT	INV	SHCAP	FASST	CASST	TNOR	MKTSH
Year	'000	'000	'000	'000	'000	'000	'000
1990	3033510	550420	550400	11675275	15234201	20303077	308
1995	3034579	550420	550400	11678590	15234516	20299623	308
2000	3094508	550420	550400	11776227	15218784	20288613	309
2005	2714902	550420	550400	10775501	15173849	21150216	247
2010	1168167	1564594	550400	14385696	13940148	29170534	88
2015	1433067	1410172	550400	12407587	14167559	27159887	54.5

Table 4.1.8a Disaggregated stylized Facts of Guinness Nigeria Plc-Exchange Rate

YR	PRT #000	EXCH #000	IND #000	MANU #000	TNOR #000	INFL #000	MKTS #000	SCAP #000	UNEM #000	IMPt-1 #000	EXPt-1 #000	BOP #000	GDP #000
1990	6766024	8.038	21.7	21147462	60308571	10606135	353982	353982	99934	4571.9	10988.1	18498.2	267550
1995	6762332	21.89	21.7	21117877	71536044	10613364	353982	353982	100400	755127.7	950661.4	-195316.3	1933212
2000	6704147	102.1	21.5	20247116	41994496	10584391	353982	353982	149693	986827.8	2887400.3	314139.2	4582127
2005	4859019	133.5	25.7	29179564	37220539	8885787	737463	737463	176969	588711.1	2915801.4	-1473537.1	14572239
2010	13736359	130.3	23.2	38244541	50172162	7679348	737463	737463	178647	541419.1	2394509.6	13319214.2	24062505
2015	9012434	157.0	25.3	86238731	124645	6156000	752944	752944	178609	532807	2474278	-8126413.1	13688403

Table 4.1.8b Disaggregated stylized Facts of Nestle Nigeria Plc-Exchange Rate

YR	PRT	EXC HR	INDP	MANU	TNOR	INFL	MK TSH	SCAP	UNEM	IMPt-1	EXPt-1	BOP	GDP
1990	3033510	8.038	168.6	14702	20303077	10606135	17	286238	99934	4571.9	10988.1	18498.2	267550
1995	3034579	21.89	407.20	105290	20299623	10613364	17	286250	100400	755127.7	950661.4	-195316.3	1933212
2000	3094508	102.1	985.99	168037	20288613	10584391	16	285895	149693	986827.8	2887400.3	314139.2	4582127
2005	2714902	133.5	1689.06	412707	21150216	8885787	10	297246	176969	588711.1	2915801.4	-1473537.1	14572239
2010	1168167	130.3	442413	647823	29170534	7679348	19.8	330273	178647	541419.1	2394509.6	13319214.2	24062505
2015	1433067	157.0	3721.54	621415	27159887	6156000	34.7	330273	178609	532807	2474278	-8126413.1	13688403

Table 4.1.8c Disaggregated Stylized Facts of Cadbury Nigeria Plc-Exchange Rate

	PRT	EXCHR	INDP	MANU	TNOR	INFL	MKTSH	SCAP	UNEM	IMPt-1	EXPt-1	BOP	GDP
YR	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000
1990	3033510	8.038	168.6	14702	20303077	10606135	308	550400	99934	4571.9	10988.1	18498.2	267550
1995	3034579	21.89	407.20	105290	20299623	10613364	308	550400	100400	755127.7	950661.4	-195316.3	1933212
2000	3094508	102.1	985.99	168037	20288613	10584391	309	550400	149693	986827.8	2887400.3	314139.2	4582127
2005	2714902	133.5	1689.06	412707	21150216	8885787	247	550400	176969	588711.1	2915801.4	-1473537.1	14572239
2010	1168167	130.3	442413	647823	29170534	7679348	88	550400	178647	541419.1	2394509.6	13319214.2	24062505
2015	1433067	157.0	3721.54	621415	27159887	6156000	54.5	550400	178609	532807	2474278	-8126413.1	13688403

Table 4.1.9a Disaggregated Stylized Facts for Guinness Nigeria Plc – Technology

YR	**PRT**	**TECH**	**INV**	**TNOR**	**FASST**	**CASST**	**SHCAP**	**MANU**	**INDP**
1990	6766024	0	60308571	23861746	21147469	10606135	353982	14702	4138340
1995	6762332	5	71536044	25593518	21117877	10613364	353982	105290	6201350
2000	6704147	10	41994496	41711848	20247116	10584391	353982	168037	6420843
2005	4859019	15	37220539	46859356	29179564	8885787	737463	412707	7145195
2010	13736359	20	50172162	109366975	38244541	7679348	737463	647823	11061941
2015	9012434	25	124645	118224769	86238731	6156000	752944	621415	13111537

Table 4.1.9b Disaggregated Stylized Facts for Nestle Nigeria Plc-Technology

	PRT	**TECH**	**INV**	**TNOR**	**FASST**	**CASST**	**SHCAP**	**MANU**	**INDP**
YR	#'000	#'000	#'000	#'000	#'000	#'000	#'000	#'000	#'000
1990	3033510	0	297250	42511404	11675275	15234201	286238	14702	4138340
1995	3034579	5	297209	42502586	11678590	15234516	286250	105290	6201350
2000	3094508	10	296204	42417243	11776227	15218784	285895	168037	6420843
2005	2714902	15	308255	44730870	10775501	15173849	297246	412707	7145195
2010	1168167	20	330273	82726229	14385696	13940148	330273	647823	11061941
2015	1433067	25	330273	72968352	12407587	14167559	330273	621415	13111537

Table 4.1.9c Disaggregated Stylized Facts for Cadbury Nigeria Plc-Technology

YR	**PRT**	**TECH**	**INV**	**TNOR**	**FASST**	**CASST**	**SHCAP**	**MANU**	**INDP**
1990	3033510	0	550420	20303077	15234201	11675275	550400	14702	4138340
1995	3034579	5	550420	20299623	15234516	11678590	550400	105290	6201350
2000	3094508	10	550420	20288613	15218784	11776227	550400	168037	6420843
2005	2714902	15	550420	21150216	15173849	10775501	550400	412707	7145195
2010	1168167	20	1564594	29170534	13940148	14385696	550400	647823	11061941
2015	1433067	25	1410172	27159887	14167559	12407587	550400	621415	13111537

Table 4.1.10a Disaggregated Stylized Facts for Guinness Nigeria Plc-Turnover

YR	TNOR	EXCHR	PRT	INV	CAPU	INDP	INFLA	UNEM	GDP
1990	23861746	8.038	6766024	60308571	52.0	4138340	8	99934	267550
1995	25593518	21.89	6774193	71536044	52.5	6201350	73	100400	1933212
2000	41711848	102.1	6704147	41994496	51.8	6420843	6	149693	4582127
2005	46859356	133.5	4859019	37220539	50.8	7145195	18	176969	14572239
2010	109366975	130.3	13736359	50172162	51.1	11061941	13	178647	24062505
2015	118224769	157.0	15673453	124645	51.3	13111537	10	178609	13688403

Table 4.1.10bDisaggregated Stylized Facts for Nestle Nigeria Plc-Turnover

YR	TNOR	EXCHR	PRT	INV	CAPU	INDP	INFLA	UNEM	GDP
1990	42511404	8.038	6032015	297250	267.55	4138340	8	99934	267550
1995	42502586	21.89	6032070	297209	1933.21	6201350	73	100400	1933212
2000	42417243	102.1	6034195	296204	4582.13	6420843	6	149693	4582127
2005	44730870	133.5	6477942	308255	11411.07	7145195	18	176969	14572239
2010	82726229	130.3	12602109	330273	24794.24	11061941	13	178647	24062505
2015	72968352	157.0	10965960	330273	25018.95	13111537	10	178609	13688403

Table 4.1.10c Disaggregated Stylized Facts for Cadbury Nigeria Plc-Turnover

YR	TNOR	EXCHR	PRT	INV	CAPU	INDP	INFLA	UNEM	GDP
1990	42511404	8.038	6032015	297250	267.55	4138340	8	99934	267550
1995	42502586	21.89	6032070	297209	1933.21	6201350	73	100400	1933212
2000	42417243	102.1	6034195	296204	4582.13	6420843	6	149693	4582127
2005	44730870	133.5	6477942	308255	11411.07	7145195	18	176969	14572239
2010	82726229	130.3	12602109	330273	24794.24	11061941	13	178647	24062505
2015	72968352	157.0	10965960	330273	25018.95	13111537	10	178609	13688403

Source; CBN statistical bulletin, Nigeria Stock Exchange Fact book

Table 4.1.6a to table 4.1.10c above present a disaggregated stylized facts of selected food and beverage firms. It shows a highlight of the trends and changes of performance indicators of selected food and beverage firms within the periods studied.

DATA PRESENTATION FOR INDUSTRY ANALYSIS

From industry analysis perspective, Tables 4.1.11 to 4.1.15 below come into focus. Thus, tables 4.1.11, 4.1.12, 4.1.13, 4.1.14 and 4.1.15 center on data in respect of food and beverage industry

Table 4.1.11TAXATIONEQUATION (Equation1): FOOD AND BEVERAGE INDUSTRY ANALYSIS

$PRT=f(TAX+TNOR+MKTS+FASST+INV+EXP_{t-1}+IMP_{t-1}+BOP)\mu$……(i)

YR	PRTT #000	TAX #000	TNOR #000	MKTS #000	FAST #000	INVEST #000	IMP_{t-1} #000	EXP_{T-1} #000	BOP #000
1990	1.5831549E7	3566065.0	6.6486194E7	346.7	4.5831427E7	6.1156241E7	96163.8	143511.6	42956.0
1991	1.583098E7	3566065.0	6.5501631E7	346.7	4.5825307E7	5.8575827E7	319951.4	450336.8	-53352.6000006
1992	1.5833446E7	4583465.0	6.719591E7	346.7	4.5818455E7	6.202779E7	457923.1995	633302.1	-225815.400002
1993	1.5830219E7	4583476.0	6.8795843E7	346.7	4.5850537E7	6.2865104E7	494989.6	643599.4	-233166.900002
1994	1.5829274E7	4583432.0	6.3565341E7	346.7	4.5806938E7	5846595.0	1080705.298	1362779.8	-280562.9
1995	1.5828981E7	4583520.0	6.9226548E7	346.7	4.5797889E7	7.2383673E7	2072882.0	2032276.2	-443784.6
1996	1.5805997E7	4583344.0	7.3595642E7	346.7	4.5946788E7	6.5377047E7	1970624.0	1503569.5	-105227.7
1997	9759898.0	4583697.3	4.7873834E7	346.7	4.5676139E7	7.4743065E7	2629759.8	3235182.0996	-218522.5
1998	1.5782529E7	4596021.2	8.6223198E7	346.6	4.5770692E7	1.4465913E7	2817065.0	2692719.9	-114715.900002
1999	1.5778228E7	3571371.6	8.5689895E7	345.9	4.6393487E7	4.435717E7	2864885.0	5265413.3	967407.8
2000	1.583285E7	4620670.7	8.5298626E7	346.5	4.4864189E7	4.284112E7	2962502.2	8674686.8	653017.1
2001	1.5993638E7	4522073.0	8.66028895E7	343.5	4.6054545E7	5.1527779E7	2977582.0	8729637.0	-514006.5
2002	1.5508195E7	4719268.9	8.8324536E7	352.6	4.8261727E7	3.8702614E7	2099777.2	8765446.3	-1289266.2
2003	1.5996714E7	4324877.2	1.00655722E8	332.4	4.0276295E7	3.8292969E7	866244.2	8723256.8	799560.399999
2004	1.6476006E7	5113655.6	9.1453875E7	369.6	4.9625611E7	3.9735661E7	1921201.1	8739446.6	774777.299998
2005	1.4051863E7	5797411.9	9.3874386E7	282.7	5.4883185E7	3.8079214E7	1629074.1	8742716.5	-5353414.80001
2006	1.776589E7	3926698.25	9.3171913E7	452.0	5.1817683E7	3.7064032E7	1472173.1	7860399.601	-7191685.9
2007	1.6859937E7	7668125.5	1.09763908E8	97.7899	5.6544702E7	4.4063735E7	1674149.401	6698040.199	-8240285.80001
2008	2.2944747E7	5331036.0	1.21010589E8	281.61	6.5138603E7	4109874.0	1591798.901	7767052.1	-9720426.7
2009	2.4560684E7	6598099.0	1.58609033E8	120.21	7.5610869E7	4.8404961E7	1579373.7	744183.7201	-1.8830962E7
2010	2.7506635E7	7042667.0	1.92877597E8	130.28	9.2426428E7	5.2067029E7	1615107.298	7302307.9	-3.31575497E7
2011	2.9885813E7	8255363.5	1.91259785E8	115.68	8.6865254E7	2330809.0	1595427.2	7503730.4	-2.05696462E7
2012	2.711771E7	2.105192425E7	1.89343497E8	115.7	1.21181016E8	1782181.0	1596637.0	7415956.4	-2.4186052703E7
2013	2.4522849E7	4056940.875	1.96865306E8	119.84	1.26778398E8	1744619.0	1602390.3	7407331.5205	-2.59710826E7
2014	2.1862219E7	159067.5625	1.80827249E8	127.57	1.17208146E8	1815867.0	1598151.6	7442339.4	-2.35755931E7
2015	2.1411461E7	2636593.0	1.8316446E8	114.5	1.25254112E8	1865090.0	1599060.0	7421875.7	-7928076.39999

Source:Nigeria stock exchange fact book (various issues).
Publications from different breweries such as NB Plc, Guinness Nigeria Plc
CBN statistical bulletin (various issues)

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L LPRT= profitability LTAX = log of tax LVAT = log of value added on tax LTNOR = log of turnover
LMKTSH = log of fixed assets LBOP = log of balance of payment LINV = log of investment$LEXP_{t-1}$ = log of export at a particular time$LIMP_{t-1}$ = log of import at a particular time

Table 4.1.12 Strategic Investment Equation(Equation 2) :

PRT=b (INV+ SHCAP+FASST+CASST+TNOR+MKTSH)μ…….(ii)

YR	PRT #000	TNOR #000	MKTS #000	FASST #000	INVEST #000	CASST #000	SHCAP #000
1990	1.5831549E7	2.3861746E7	346.7	4.5831427E7	6.1156241E7	4.1074537E7	1190620.0
1991	1.583098E7	2.2877373E7	346.7	4.5825307E7	5.8575827E7	4.1073495E7	1190622.0
1992	1.5833446E7	2.3556409E7	346.7	4.5818455E7	6.202779E7	4.1075721E7	1190620.0
1993	1.5830219E7	2.5151458E7	346.7	4.5850537E7	6.2865104E7	4.1074395E7	1190624.0
1994	1.5829274E7	1.9924252E7	346.7	4.5806938E7	5846595.0	4.1070372E7	1190616.0
1995	1.5828981E7	2.5593518E7	346.7	4.5797889E7	7.2383673E7	4.1082396E7	1190632.0
1996	1.5805997E7	2.9936605E7	346.7	4.5946788E7	6.5377047E7	4.107042E7	1190600.0
1997	9759898.0	4242634.0	346.7	4.5676139E7	7.4743065E7	4.1058305E7	1190664.0
1998	1.5782529E7	4.2601316E7	346.6	4.5770692E7	1.4465913E7	4.1118463E7	1190535.0
1999	1.5778228E7	4.2965866E7	345.9	4.6393487E7	4.435717E7	4.1034491E7	1190793.0
2000	1.583285E7	4.1711848E7	346.5	4.4864189E7	4.284112E7	4.1021959E7	1190277.0
2001	1.5993638E7	4.3126235E7	343.5	4.6054545E7	5.1527779E7	4.1298939E7	1191308.0
2002	1.5508195E7	4.4059515E7	352.6	4.8261727E7	3.8702614E7	4.0782575E7	1189245.0
2003	1.5996714E7	5.7949795E7	332.4	4.0276295E7	3.8292969E7	4.0984365E7	1193371.0
2004	1.6476006E7	4.7369394E7	369.6	4.9625611E7	3.9735661E7	4.2129876E7	1185119.0
2005	1.4051863E7	4.6859356E7	282.7	5.4883185E7	3.8079214E7	3.9233485E7	1585109.0
2006	1.776589E7	5.3651781E7	452.0	5.1817683E7	3.7064032E7	4.4085599E7	1552082.0
2007	1.6859937E7	6.2265413E7	97.7899	5.6544702E7	4.4063735E7	4.681581E7	1618136.0
2008	2.2944747E7	6.9172852E7	281.61	6.5138603E7	4109874.0	3.9935355E7	1618136.0
2009	2.4560684E7	8.9148207E7	120.21	7.5610869E7	4.8404961E7	3.3239281E7	1618136.0
2010	2.7506635E7	1.09366976E8	130.28	9.2426428E7	5.2067029E7	3.5559644E7	1618136.0
2011	2.9885813E7	1.23663125E8	115.68	8.6865254E7	2330809.0	3.6391463E7	1618136.0
2012	2.711771E7	1.16461882E8	115.7	1.21181016E8	1782181.0	3.1229492E7	1618136.0
2013	2.4522849E7	1.22463538E8	119.84	1.26778398E8	1744619.0	3.1487126E7	1633617.0
2014	2.1862219E7	1.0920212E8	127.57	1.17208146E8	1815867.0	3.4376736E7	1633617.0
2015	2.1411461E7	1.10195859E8	114.5	1.25254112E8	1865090.0	3.4491118E7	1633617.0

Sources: Nigeria stock exchange fact book (various issues).
Publications from Cadbury Nigeria Plc
CBN statistical bulletin (various issues)

Key

PRT	profitability	INV	Investment	SHCAP	Share capital
FASST	Fixed assets	CASST	Current assets		
TNOR	Turnover on sales	MKSH	Market share		

Table4.1.13Exchange Rate Equation(Equation 3):Food and BeverageIndustryAnalysis

PRT=d (EXCHR+INDP+MANU+TNOR+INFL+MKTSH+SCAP+UNEM+IMPt-1+EXPt1+BOP+GDP)µ…..(v)

YR	PRT #000	EXCHR #000	INDP #000	MANU #000	TNOR #000	INFL #000	MKTS #000	SCAP #000	UNEM #000	IMPt-1 #000	EXPt-1 #000	BOP #000	GDP #000
1990	1.5831549E7	24.114	358.9	14702.0	6.6486194E7	3.1818405E7	346.7	1190620.0	299802.0	96163.8	143511.6	42956.0	802650.0
1991	1.583098E7	29.73	354.78	19356.0	6.5501631E7	3.1816239E7	346.7	1190622.0	369411.0	319951.4	450336.8	-53352.66	936420.0
1992	1.5833446E7	51.3000	363.3	27004.0	6.719591E7	3.1822203E7	346.7	1190620.0	292047.0	457923.195	633302.1	-225815.4	1597842.0
1993	1.5830219E7	65.67	346.26	38987.0	6.8795843E7	3.1816773E7	346.7	1190624.0	292047.0	494989.6	643599.4	-233166.2	2051610.0
1994	1.5829274E7	65.67	380.4	62898.0	6.3565341E7	3.1809744E7	346.7	1190616.0	550620.0	1080705.29	1362779.8	-280562.9	2699589.0
1995	1.5828981E7	65.67	836.1	105290.0	6.9226548E7	3.1840092E7	346.7	1190632.0	301200.0	2072882.0	2032276.2	-443784.6	5799636.0
1996	1.5805997E7	65.67	1162.38	132897.0	7.3595642E7	3.1800486E7	346.7	1190600.0	344016.0	1970624.0	1503569.5	-105227.7	8108157.0
1997	9759898.0	68.67	1129.72	144107.0	4.7873834E7	3.1788657E7	346.7	1190664.0	458079.0	2629759.8	3235182.96	-218522.5	8405919.0
1998	1.5782529E7	68.67	908.28	141496.0	8.6223198E7	3.1931133E7	346.6	1190535.0	458079.0	2817065.0	2692719.9	-114715.2	8125293.0
1999	1.5778228E7	278.07	1138.94	150947.0	8.5689895E7	3.1681665E7	345.9	1190793.0	552309.0	2864885.0	5265413.3	967407.8	9582045.0
2000	1.583285E7	306.299	1993.48	168037.0	8.5298626E7	3.1753173E7	346.5	1190277.0	449079.0	2962502.2	8674686.8	653017.1	1.3746381E7
2001	1.5993638E7	335.700	1687.14	199079.0	8.66028895E7	3.2358561E7	343.5	1191308.0	570984.0	2977582.0	8729637.0	-514006.5	1.4175258E7
2002	1.5508195E7	365.700	1753.45	236826.0	8.8324536E7	3.0933261E7	352.6	1189245.0	510861.0	2099777.2	8765446.3	-1289266.	2.0737143E7
2003	1.5996714E7	388.200	2373.84	287739.0	1.00655722E8	3.1967697E7	332.4	1193371.0	540933.0	866244.2	8723256.8	799560.399	2.5461096E7
2004	1.6476006E7	388.200	2567.79	349316.0	9.1453875E7	3.4174728E7	369.6	1185119.0	540927.0	1921201.1	8739446.6	774777.3	3.4233201E7
2005	1.4051863E7	400.5	3403.87	412707.0	9.3874386E7	2.6657361E7	282.7	1585109.0	530907.0	1629074.1	8742716.5	-5353414.	4.3716717E7
2006	1.776589E7	396.299	4187.24	478524.0	9.3171913E7	4.2558603E7	452.0	1552082.0	537588.0	1472173.1	7860399.1	-7191685.9	5.5693785E7
2007	1.6859937E7	386.099	4416.0	520883.0	1.09763908E8	4.4544012E7	97.78	1618136.0	536475.0	1674149.41	669804	-8240285.8	6.1971954E7
2008	2.2944747E7	394.200	527903.0	585573.0	1.21010589E8	3.2278395E7	281.6	1618136.0	534990.0	15917981	7767052.1	-9720426.7	8.6526513E7
2009	2.4560684E7	392.099	4654.59	612614.0	1.58609033E8	1.3868079E7	120.2	1618136.0	536352.0	1579373.7	7441830.	-1.83096E7	6.8064084E7
2010	2.7506635E7	390.900	884849.2	647823.0	1.92877597E8	2.3038044E7	130.3	1618136.0	535941.0	1615107.29	7302307.9	-3.31575497E7	7.2187515E7
2011	2.9885813E7	467.400	8015.71	615235.0	1.91259785E8	2.3501613E7	115.7	1618136.0	535758.0	1595427.2	750373.4	-2.05696462E7	7.5592704E7
2012	2.711771E7	470.099	7327.88	625122.0	1.89343497E8	8634000.0	115.7	1618136.0	535848.0	1596637.0	7415956.4	-2.418605273E7	7.3890111E7
2013	2.4522849E7	470.099	7372.71	622650.0	1.96865306E8	9672000.0	119.9	1633617.0	535848.0	1602390.3	7407331.55	-2.5971826E7	7.4741406E7
2014	2.1862219E7	471.900	7582.5	621415.0	1.80827249E8	1.7958E7	127.5	1633617.0	535806.0	1598151.6	7442339.4	-2.35755931E7	4.1065209E7
2015	2.1411461E7	471.0	7468.38	621415.0	1.8316446E8	1.8468E7	114.5	1633617.0	535827.0	1599060.0	7421875.7	-7928076.3	4.1065209E7

Source: Nigerian Stock Exchange fact book (various issues)
Publications of Guinness Nigeria Plc
CBN statistical Bulletin

Key:

PRT = profitability
LEXCHR = log of exchange rate
LINDP = log of industrial production
LMANU = log of manufacturing
LTNOR = log of turnover
LINFLA = log of inflation
LMKTSH = log of market share
LSHCAP = log of share capital
LUNEM = log of unemployment
$LIMP_{t-1}$ = log of import at a particular time
$LEXP_{t-1}$ = log of export at a particular time
LBOP = log of Balance of Payment
LGDP = log of Gross Domestic Product

Table 4.1.14 Technology Equation(Equation5)Food and Beverage Industry Analysis
PRT=f (TECH+INV+TNOR+FASST+CASST+SHCAP+MANU+INDP)μ…….(v)

YR	PRT	TECH	INV	TNOR	FASST	CASST	SHCAP	MANU	INDP
1990	1.5831549E7	0	6.1156241E7	6.6486194E7	4.5831427E7	4.1074537E7	1190620.0	2.1176866E7	358.9
1991	1.583098E7	1	5.8575827E7	6.5501631E7	4.5825307E7	4.1073495E7	1190622.0	2.1180361E7	354.78
1992	1.5833446E7	2	6.202779E7	6.719591E7	4.5818455E7	4.1075721E7	1190620.0	2.1189714E7	363.3
1993	1.5830219E7	3	6.2865104E7	6.8795843E7	4.5850537E7	4.1074395E7	1190624.0	2.1243026E7	346.26
1994	1.5829274E7	4	5846595.0	6.3565341E7	4.5806938E7	4.1070372E7	1190616.0	2.1249985E7	380.4
1995	1.5828981E7	5	7.2383673E7	6.9226548E7	4.5797889E7	4.1082396E7	1190632.0	2.1328457E7	836.1
1996	1.5805997E7	6	6.5377047E7	7.3595642E7	4.5946788E7	4.107042E7	1190600.0	2.1518886E7	1162.38
1997	9759898.0	7	7.4743065E7	4.7873834E7	4.5676139E7	4.1058305E7	1190664.0	2.1289812E7	1129.72
1998	1.5782529E7	8	1.4465913E7	8.6223198E7	4.5770692E7	4.1118463E7	1190535.0	2.1381886E7	908.28
1999	1.5778228E7	9	4.435717E7	8.5689895E7	4.6393487E7	4.1034491E7	1190793.0	2.1960631E7	1138.94
2000	1.583285E7	10	4.284112E7	8.5298626E7	4.4864189E7	4.1021959E7	1190277.0	2.058319E7	1993.48
2001	1.5993638E7	11	5.1527779E7	8.66028895E7	4.6054545E7	4.1298939E7	1191308.0	2.1789132E7	1687.14
2002	1.5508195E7	12	3.8702614E7	8.8324536E7	4.8261727E7	4.0782575E7	1189245.0	2.3811773E7	1753.4598
2003	1.5996714E7	13	3.8292969E7	1.00655722E8	4.0276295E7	4.0984365E7	1193371.0	1.658773E7	2373.84
2004	1.6476006E7	14	3.9735661E7	9.1453875E7	4.9625611E7	4.2129876E7	1185119.0	2.552118E7	2567.79997
2005	1.4051863E7	15	3.8079214E7	9.3874386E7	5.4883185E7	3.9233485E7	1585109.0	3.0004978E7	3403.81997
2006	1.776589E7	16	3.7064032E7	9.3171913E7	5.1817683E7	4.4085599E7	1552082.0	3.0489017E7	4187.24
2007	1.6859937E7	17	4.4063735E7	1.09763908E8	5.6544702E7	4.681581E7	1618136.0	3.1166613E7	4416.0
2008	2.2944747E7	18	4109874.0	1.21010589E8	6.5138603E7	3.9935355E7	1618136.0	3.7904456E7	527903.0
2009	2.4560684E7	19	4.8404961E7	1.58609033E8	7.5610869E7	3.3239281E7	1618136.0	3.7123187E7	4654.55995
2010	2.7506635E7	20	5.2067029E7	1.92877597E8	9.2426428E7	3.5559644E7	1618136.0	3.9540187E7	884849.2
2011	2.9885813E7	21	2330809.0	1.91259785E8	8.6865254E7	3.6391463E7	1618136.0	4.7329027E7	8015.74001
2012	2.711771E7	22	1782181.0	1.89343497E8	1.21181016E8	3.1229492E7	1618136.0	7.7544095E7	7327.88
2013	2.4522849E7	23	1744619.0	1.96865306E8	1.26778398E8	3.1487126E7	1633617.0	8.9358152E7	7372.78001
2014	2.1862219E7	24	1815867.0	1.80827249E8	1.17208146E8	3.4376736E7	1633617.0	8.4957544E7	7582.5
2015	2.1411461E7	25	1865090.0	1.8316446E8	1.25254112E8	3.4491118E7	1633617.0	8.7481561E7	7468.38

Source: Nigerian Stock Exchange fac book (various issues
Publicatios of Guinness Nigeria Plc
CBN statistical Bulletin

key

PRT = profitability
LTECH = log of technology
LINV = log of investment
LTNOR= log of turnover
LFASST = log of fixed assets
LCASST = log of current assets
LSHCAP = log of share capital
LMANU = log of manufacturing
LINDP = log of industrial production

Table 4.1.15 Turnover Equation(Equation 6) : **Food and Beverage Industry Analysis**

TNOR=h (EXCHR+ PRT+ INV+ CAPU+ INDP+ INFLA+UNEM+ GDP) μ……(ix)

YR	TNOR	EXCHR	PRT	INV	CAPU	INDP	INFLA	UNEM	GDP
1990	6.6486194E7	24.114	1.5831549E7	6.1156241E7	587.1	358.9	3.1818405E7	299802.0	802650.0
1991	6.5501631E7	29.73	1.583098E7	5.8575827E7	677.079	354.78	3.1816239E7	369411.0	936420.0
1992	6.719591E7	51.34	1.5833446E7	6.202779E7	1117.92	363.3	3.1822203E7	292047.0	1597842.0
1993	6.8795843E7	65.67	1.5830219E7	6.2865104E7	1420.44	346.26	3.1816773E7	292047.0	2051610.0
1994	6.3565341E7	65.67	1.5829274E7	5846595.0	1852.32	380.4	3.1809744E7	550620.0	2699589.0
1995	6.9226548E7	65.67	1.5828981E7	7.2383673E7	3918.92	836.1	3.1840092E7	301200.0	5799636.0
1996	7.3595642E7	65.67	1.5805997E7	6.5377047E7	5457.83	1162.38	3.1800486E7	344016.0	8108157.0
1997	4.7873834E7	68.67	9759898.0	7.4743065E7	5656.24	1129.72	3.1788657E7	458079.0	8405919.0
1998	8.6223198E7	68.67	1.5782529E7	1.4465913E7	5469.05	908.28	3.1931133E7	458079.0	8125293.0
1999	8.5689895E7	278.07	1.5778228E7	4.435717E7	6440.02	1138.94	3.1681665E7	552309.0	9582045.0
2000	8.5298626E7	306.295	1.583285E7	4.284112E7	9216.06	1993.48	3.1753173E7	449079.0	1.3746381E7
2001	8.66028895E7	335.70	1.5993638E7	5.1527779E7	9501.68	1687.14	3.2358561E7	570984.0	1.4175258E7
2002	8.8324536E7	365.75	1.5508195E7	3.8702614E7	13875.96	1753.4598	3.0933261E7	510861.0	2.0737143E7
2003	1.00655722E8	388.25	1.5996714E7	3.8292969E7	17025.06	2373.84	3.1967697E7	540933.0	2.5461096E7
2004	9.1453875E7	388.25	1.6476006E7	3.9735661E7	17024.66	2567.797	3.4174728E7	540927.0	3.4233201E7
2005	9.3874386E7	400.5	1.4051863E7	3.8079214E7	22872.94	3403.8197	2.6657361E7	530907.0	4.3716717E7
2006	9.3171913E7	396.25	1.776589E7	3.7064032E7	29195.38	4187.24	4.2558603E7	537588.0	5.5693785E7
2007	1.09763908E8	386.07	1.6859937E7	4.4063735E7	37180.6	4416.0	4.4544012E7	536475.0	6.1971954E7
2008	1.21010589E8	394.25	2.2944747E7	4109874.0	41365.94	527903.0	3.2278395E7	534990.0	8.6526513E7
2009	1.58609033E8	392.07	2.4560684E7	4.8404961E7	48644.06	4654.5595	1.3868079E7	536352.0	6.8064084E7
2010	1.92877597E8	390.93	2.7506635E7	5.2067029E7	49639.58	884849.2	2.3038044E7	535941.0	7.2187515E7
2011	1.91259785E8	467.43	2.9885813E7	2330809.0	68020.8	8015.74	2.3501613E7	535758.0	7.5592704E7
2012	1.89343497E8	470.07	2.711771E7	1782181.0	74871.02	7327.88	8634000.0	535848.0	7.3890111E7
2013	1.96865306E8	470.07	2.4522849E7	1744619.0	81139.5	7372.78	9672000.0	535848.0	7.4741406E7
2014	1.80827249E8	471.93	2.1862219E7	1815867.0	19038.898	7582.5	1.7958E7	535806.0	4.1065209E7
2015	1.8316446E8	471.0	2.1411461E7	1865090.0	50089.2	7468.38	1.8468E7	535827.0	4.1065209E7

Sources: Nigeria Stock exchange fact book(various issues)
Publications of Guinness Nigeria Ltd
CBN statistical bulletin

Key

TNOR = turnover
LEXCHR = log of exchange rate
LPRT = log of profitability
LINV = log of investment
LCAPU = log of capacity utilization
LINDP = log of industrial production
LINFLA = log of inflation
LUMEM = log of unemployment
LGDP = log Gross Domestic Product

Fig 4.1:Graphical presentation of Influence of Taxation on Profitability of Guinness Nigeria Plc

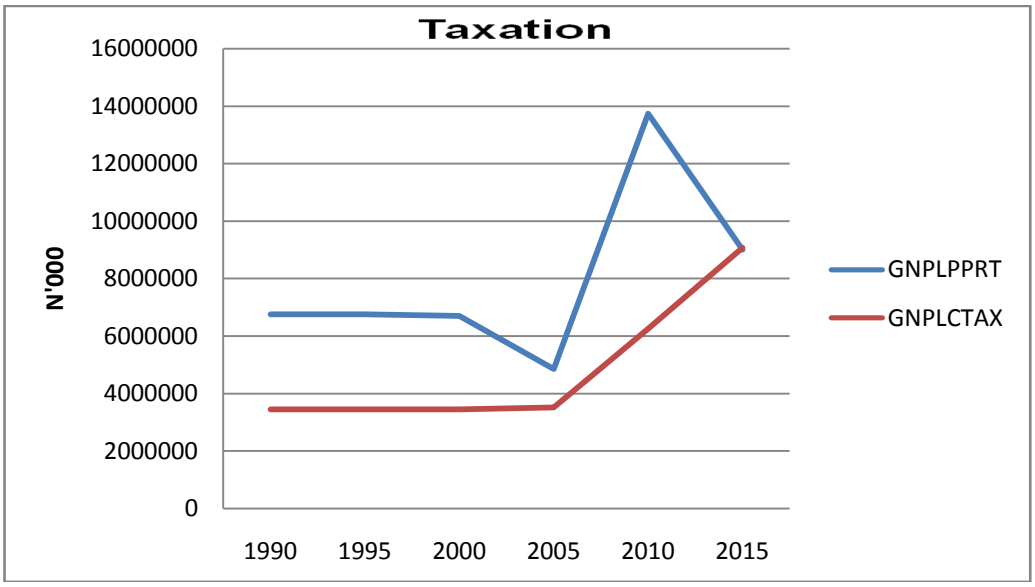

Fig 4.2: Graphical Presentation of Influence of Taxation on Profitability of Nestle Nigeria Plc

Taxation

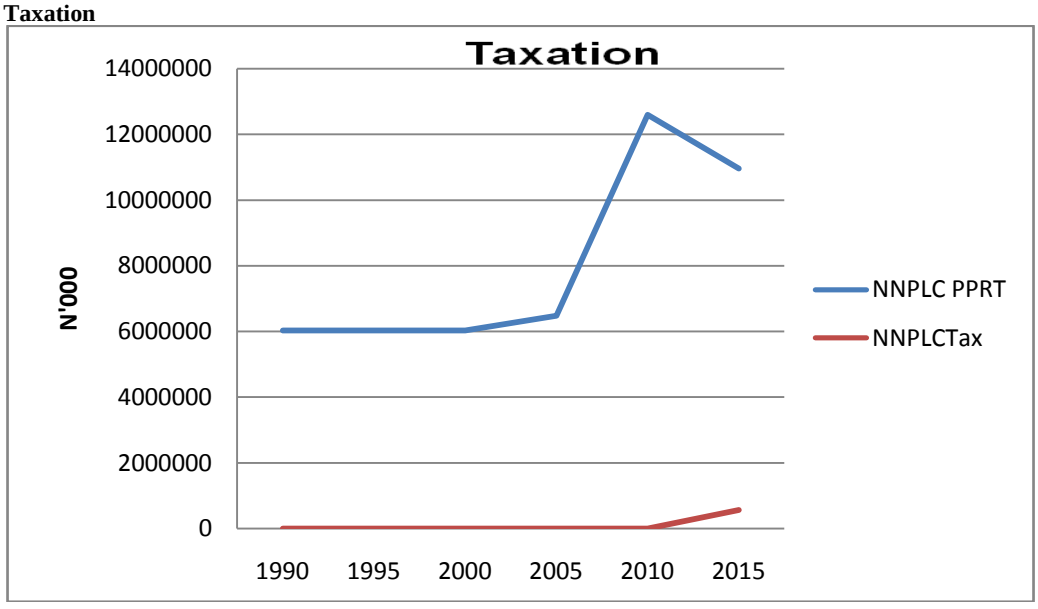

Fig 4.3: Graphical presentation of Influence of Taxation on Profitability of Cadbury Nigeria Plc

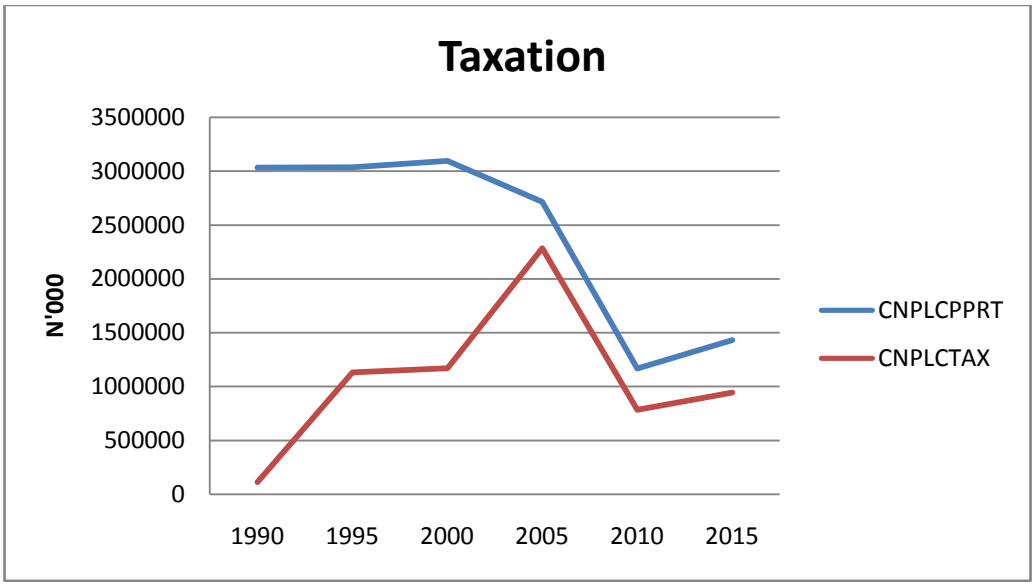

Fig 4.1, 4.2 and 4.3 reveal the graphical presentation of taxation of the companies in relation to the disaggregated stylized facts of Guinness Nigeria Plc (GNPLC), Nestle Nigeria Plc (NNPLC) and Cadbury Nigeria Plc (CNPLC). As at 2010, Performance of GNPLC and NNPLC was at a high gear as their company's profit ranged between #12,000,000 and #14,000,000. CNPLC recorded highest profit between 1990 and 2000 with a profit of#3,000,000. This was however followed by a gradual decline in the rate of profit for the three companies in view of the environmental instability and factors such as high rate of taxation. For GNPLC, taxation continued to increase even at a decline in profit. Taxation in CNPLC shows a decline in the event of a decline in profit while for NNPLC, taxation remained at a steady range irrespective of profit growth or decline.

Fig 4.4; Graphical Presentation of Influence of Strategic Investment on Profitability of Guinness Nigeria Plc- GNPLC

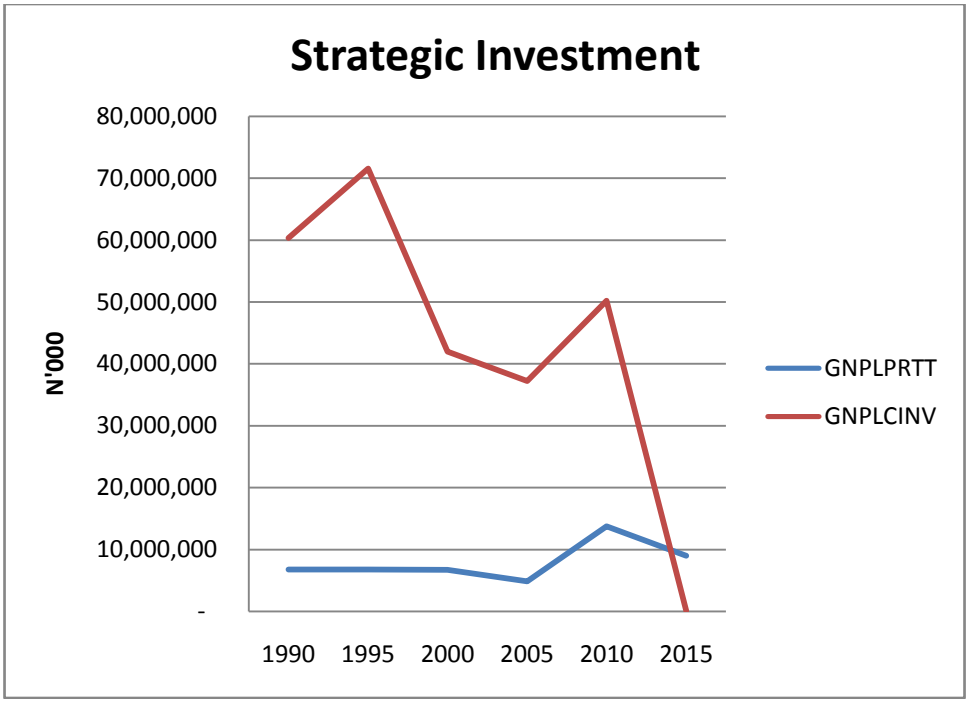

Fig 4.5; Graphical presentation of Influence of Strategic Investment on Profitability of Nestle Nigeria Plc-NNPLC

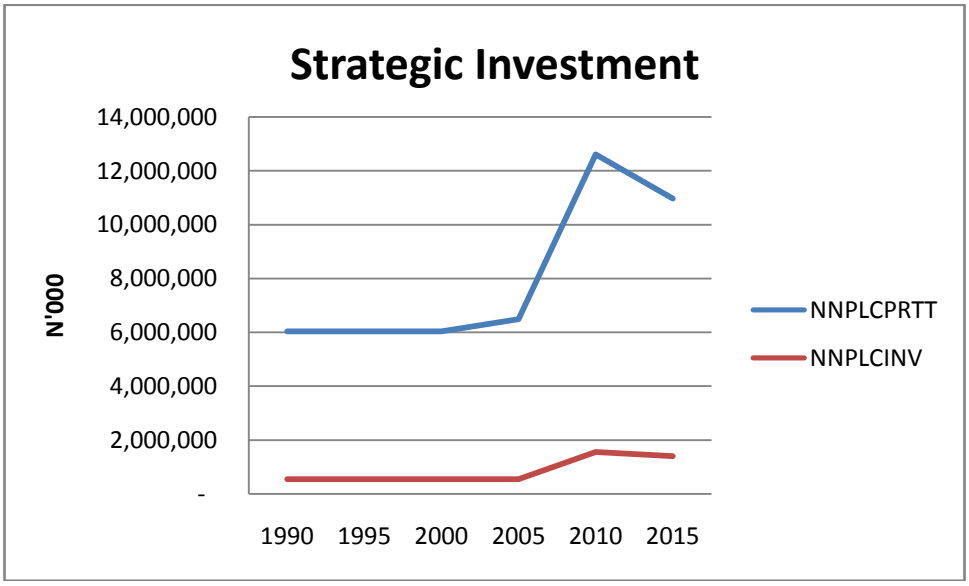

Fig 4.6; Graphical Presentation of Influence of Strategic Investment on Profitability of Cadbury Nigeria Plc- CNPLC

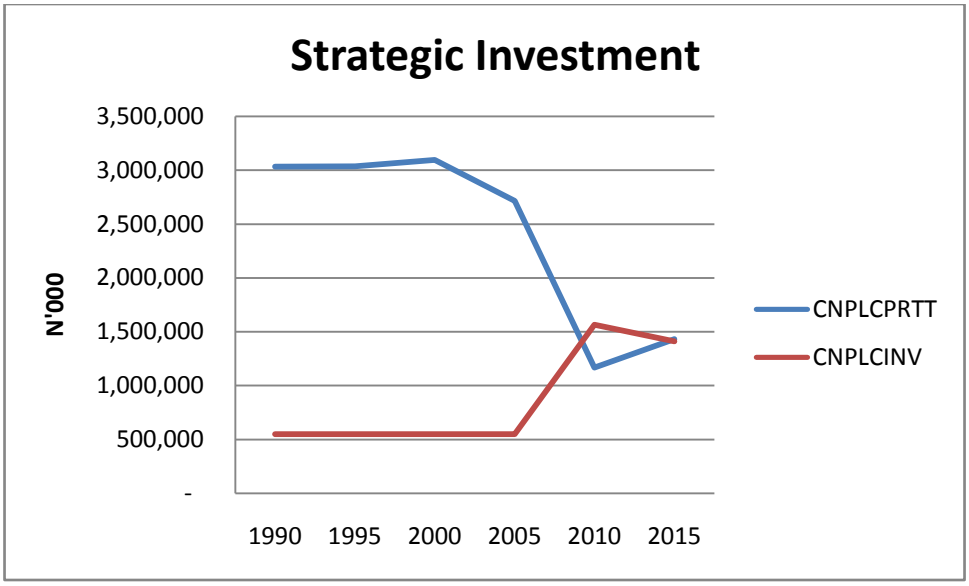

Fig 4.4, 4.5 and 4.6 reveal the graphical presentation of strategic investment of the companies in relation to the disaggregated stylized facts of Guinness Nigeria Plc (GNPLC), Nestle Nigeria Plc (NNPLC) and Cadbury Nigeria Plc (CNPLC). As at 2010, Performance of GNPLC and NNPLC was at a high gear as their company's profit ranged between #12,000,000 and #14,000,000 as a result of strategic investment activities. CNPLC recorded highest profit between 1990 and 2000 with a profit of# 3,000,000. This was however followed by a gradual decline in the rate of profit for the three companies in view of the environmental instability and factors. The situation deserves severe strategic environmental scanning efforts so as to reverse the trend to its profitable range

Fig 4.7 Graphical presentation of Exchange rate in Nigeria

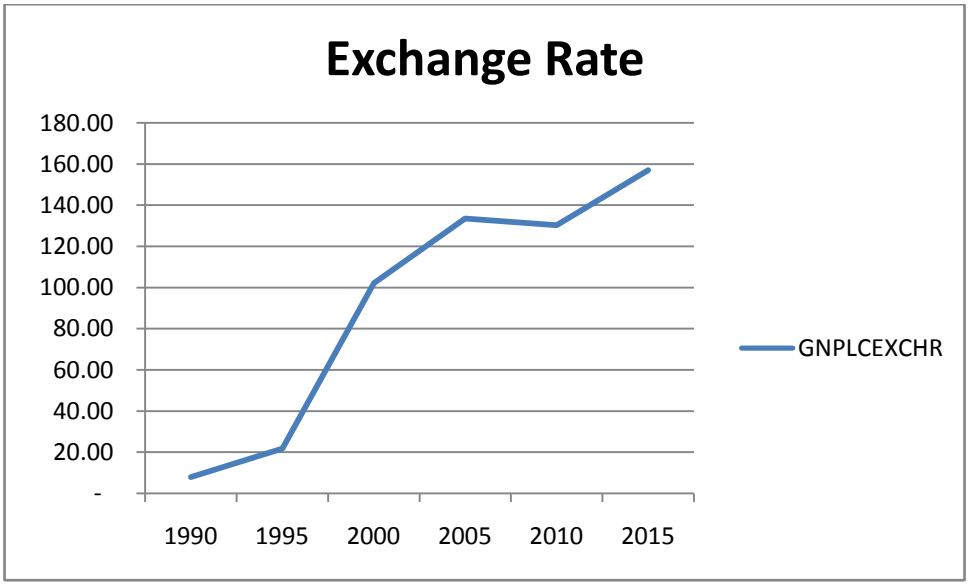

Fig 4.8; Graphical Presentation of Influence of Exchange rate on Profitability of Guinness Nigeria Plc– GNPLC

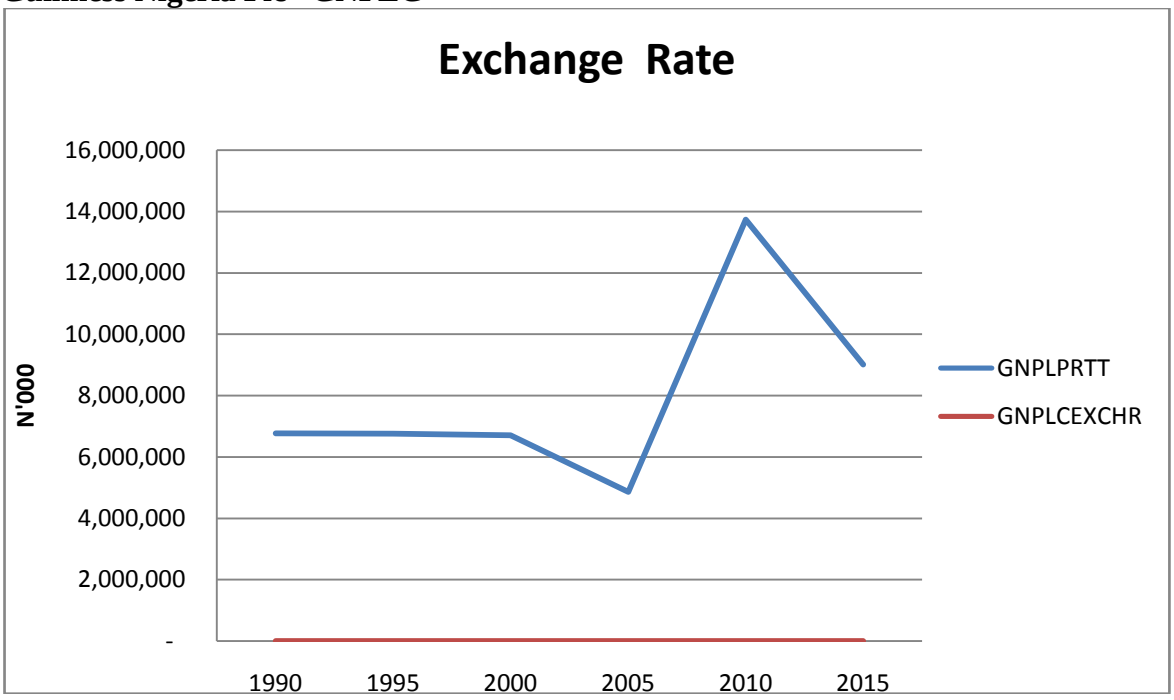

Fig 4.9; Graphical Presentation of Influence of Exchange rate on Profitability of Nestle Nigeria Plc – NNPLC

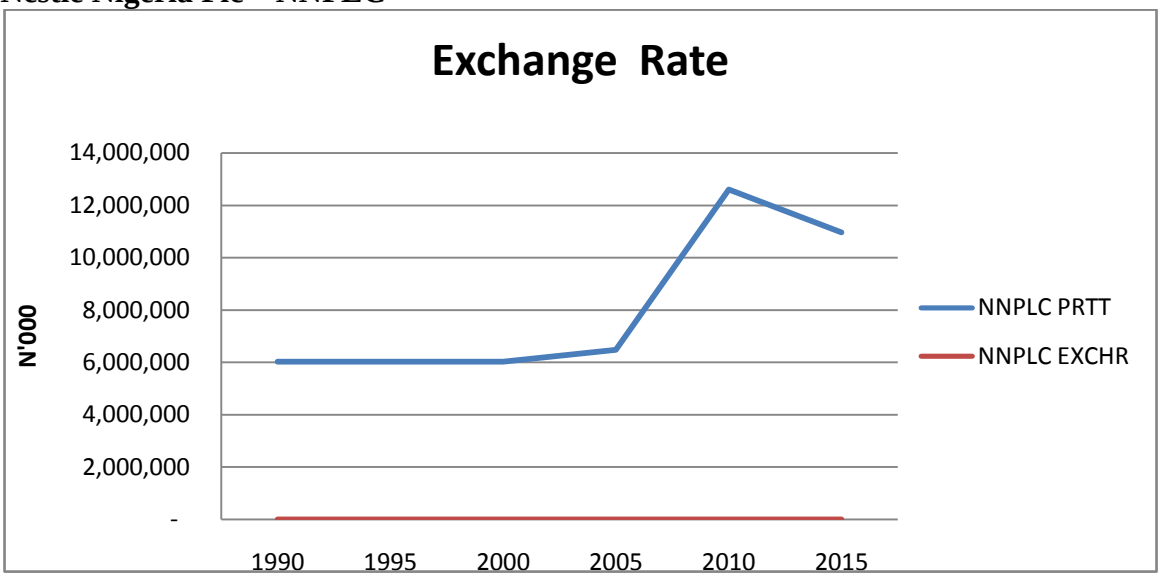

Fig 4.10 ; Graphical presentation of Influence of Exchange Rate on Profitability of Cadbury Nigeria Plc.

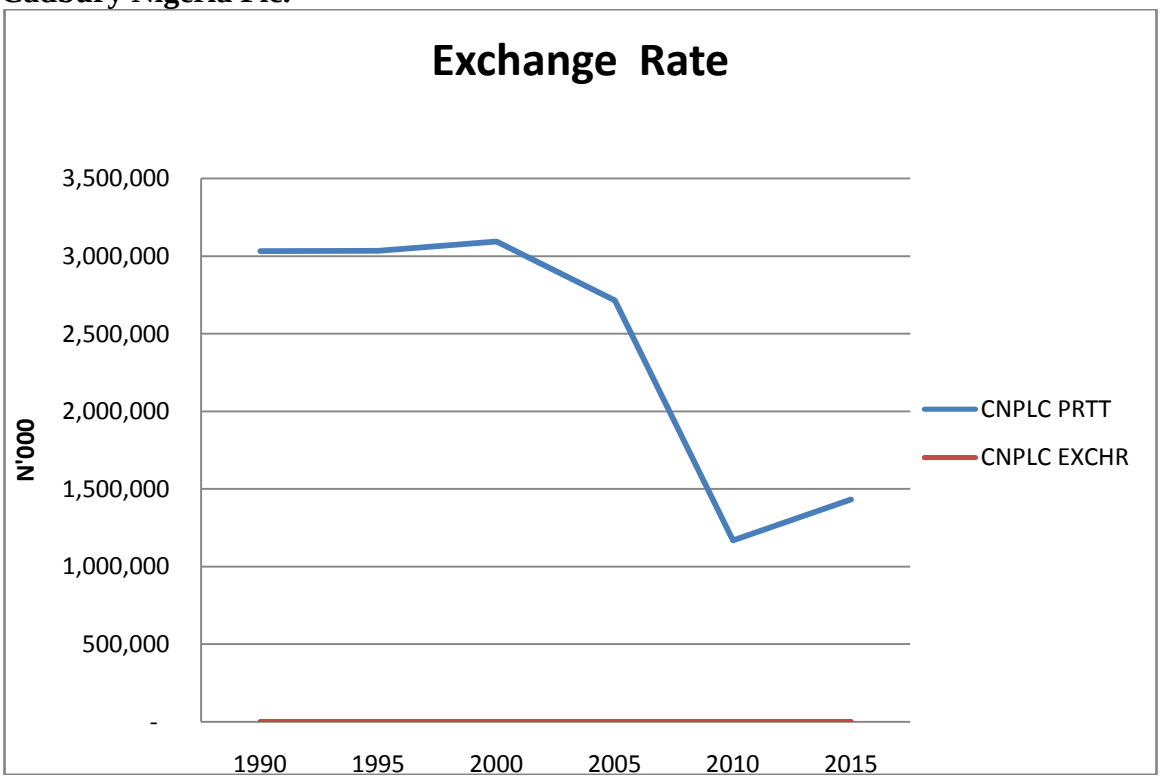

Fig 4.8, 4.9 and 4.10 reveal the graphical presentation of the influence of exchange rate on profitability of the companies in relation to the disaggregated stylized facts of Guinness Nigeria Plc (GNPLC), Nestle Nigeria Plc (NNPLC) and Cadbury Nigeria Plc (CNPLC).Fig 4.7 shows the instability of exchange rate from 1990 through 2015. As shown in fig 18, 19 and 20 there has been a decline in profitability of GNPLC from the year 2005 through 2015 while exchange rate for this period remained very unstable. Performance of GNPLC shows a decline from 2010 to 2015 with a drop in profit from #14000000 to #9000000. For NNPLC, performance declined from the year 2010 to 2015 recording a profit decline of #12000000 to #11000000 for the period.CNPLC also recorded a decline in profit from the year 2000 through 2010 recording a profit decline from #3000000 to #12000000 after which it maintained a slow growth in profit. As the graph shows, the instability of exchange rate recorded within these periods may have contributed to the decline of profit of the three companies

Fig 4.11 Graphical Presentation of Influence of Technology on Profitability of GNPLC

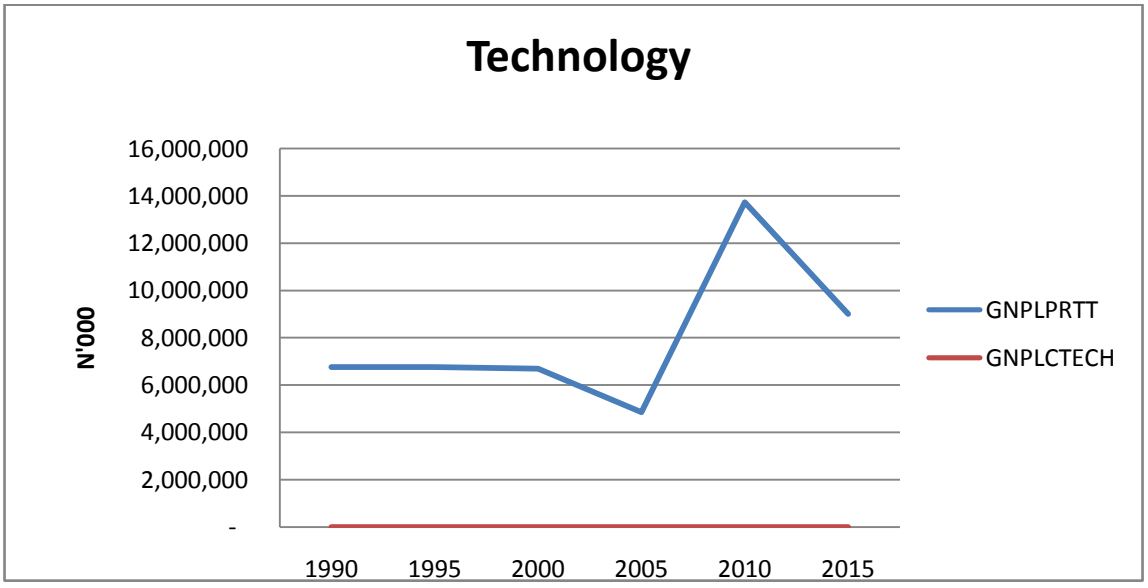

Fig 4.12 Graphical Presentation of Influence of Technological Changes on Profitability of NNPLC

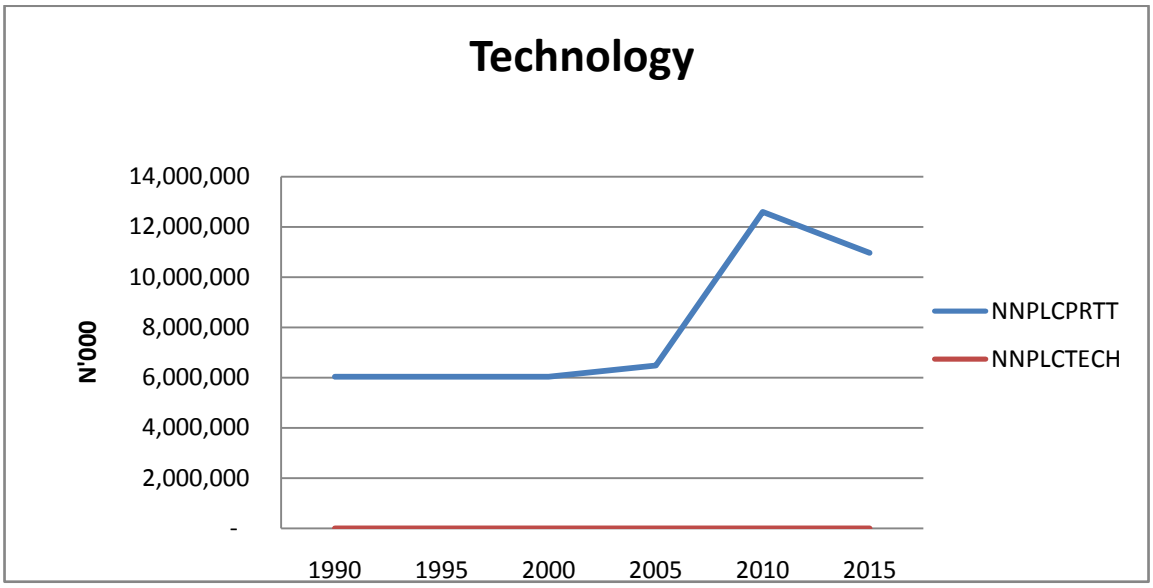

Fig 4.13 Graphical Presentation of Influence of Technology on Profitability of CNPLC

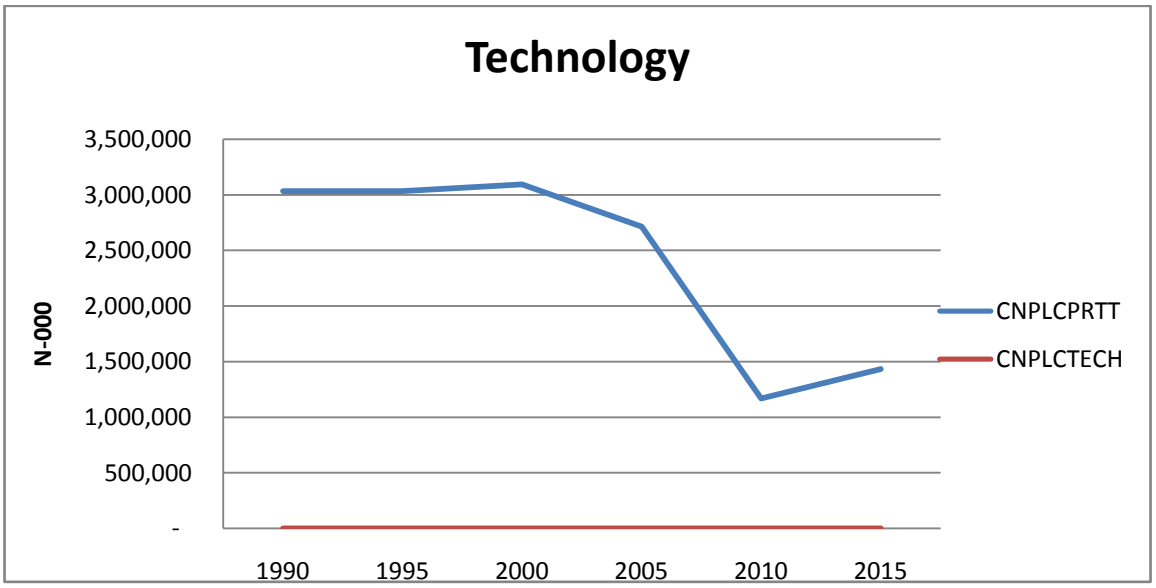

Fig 4.11,and 4.12reveal a steady growth in profit of GNPLC and NNPLC from the year 2005 to 2010 when a decline in profit took over. Fig 4.13 also shows a decline in profit of CNPLC from the year 2005 to 2010 followed by a slow growth of profit. However, technology maintains a steady growth due to changes in technology. It is however expected that an increase in technological changes should bring about increase in profit but the reverse is the case in the case

of the three companies. This may be as a result of use of obsolete technology by the companies as well as failure of the company to keep abreast of new technologies so as to improve productive processes and boost performance. Strategic environmental scanning is a tool which managers of these firms can employ to monitor changes in technology so as respond timely and avoid decline in profit as a result of use of obsolete technology.

Fig 4.14; Graphical presentation of Influence of Turnover on Profitability of GNPPLC

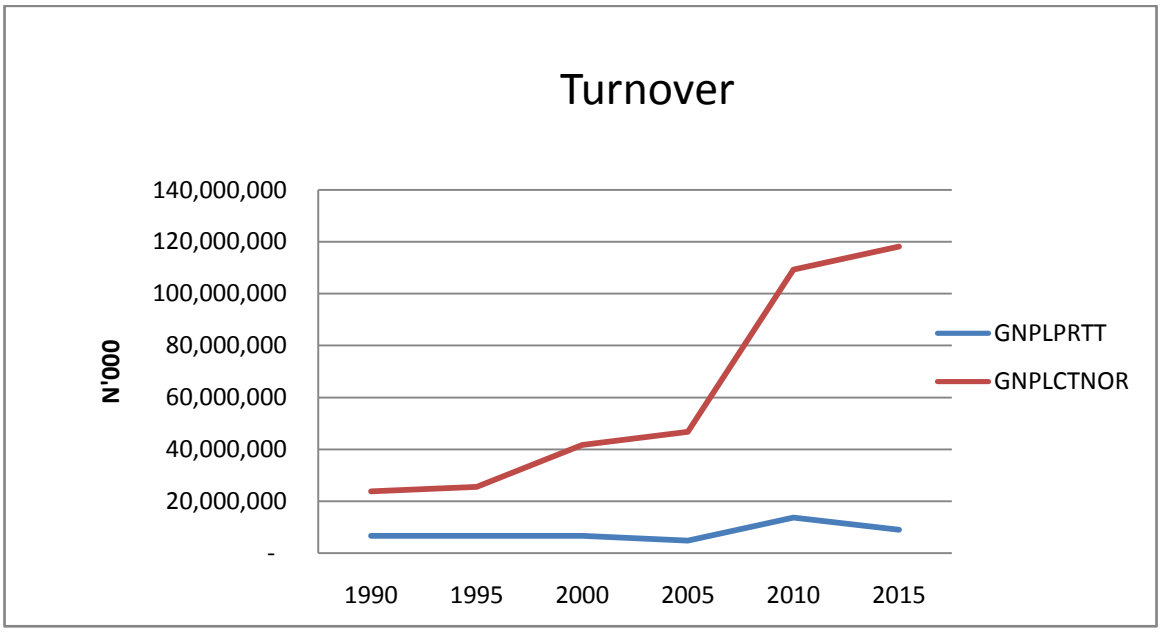

Fig 4.15; Graphical Presentation of Influence of Turnover on Profitability of NNPPLC

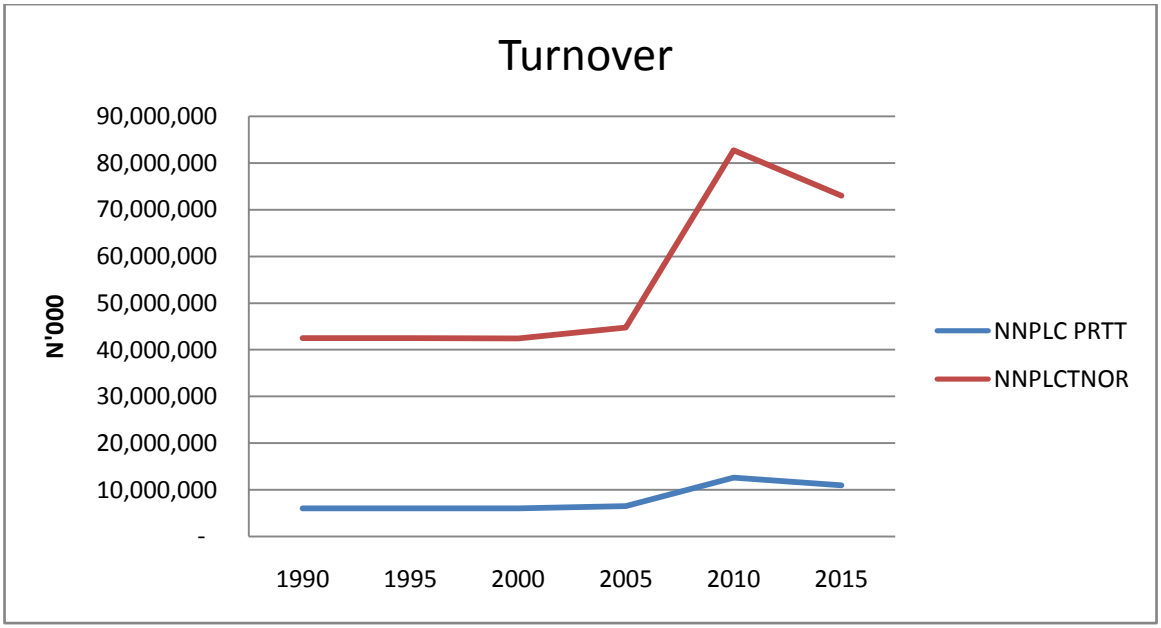

Fig 4.16; Graphical Presentation of Influence of Turnover on Profitability of CNPPLC

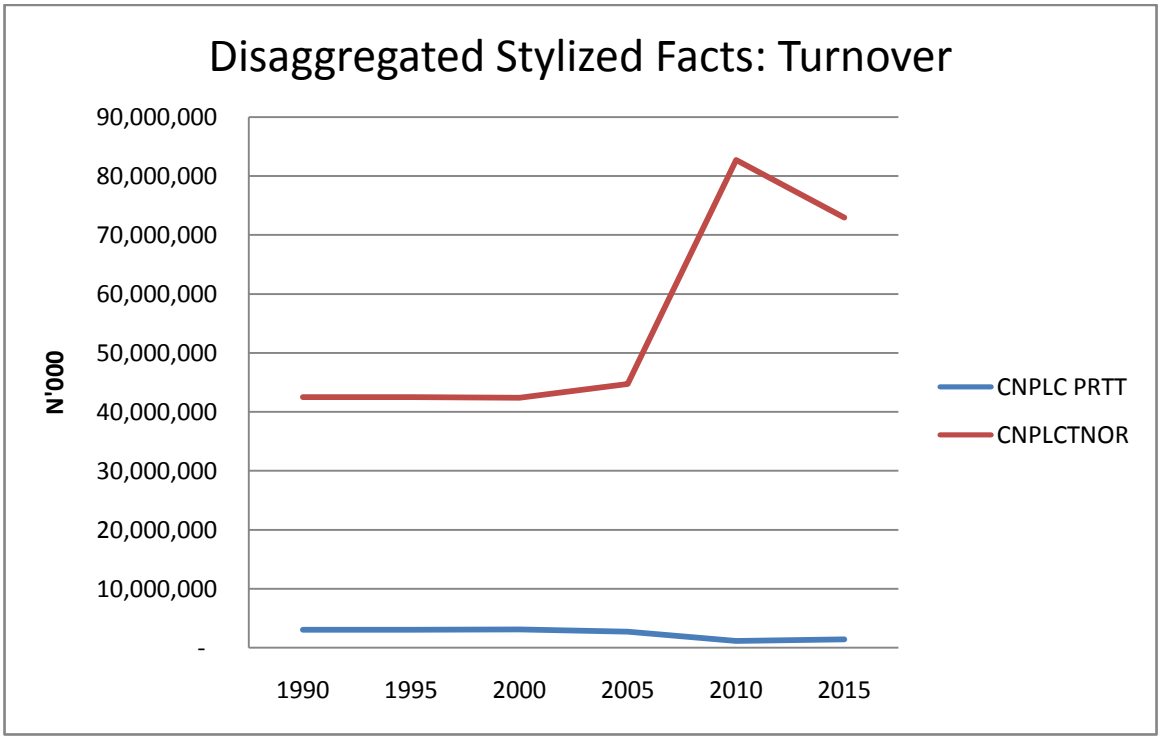

Fig 4.14, 4.15 and 4.16are graphical presentations of turnover in respect of GNPLC, NNPLC and CNPLC respectively as a result of strategic investments in these companies. In 2015, the rate of turnover was #12000000 (GNPLC), #81,000,000 (NNPLC) and #81,000,000 (CCNPLC) had risen up to #12,000,000. Strategic business investments associated with changes in the economic environment resulted in low level of profit for the three companies. Specifically,the profit range for GNPLC for the period 1990 to 2015 was between #10,000,000 and #20,000,000, NNPLC was between #80,000,000 and #12,000,000 while CNPLC was between#20000000 and #10000000 for the period under review. These low levels of profit for these companies as a result of environmental changes require strategic environmental scanning towards reversing the trend and achieving higher profit. Put simply, the performance of these companies was at a lower gear thereby necessitating strategic environmental scanning of the Food and Beverage firms' environment in Nigeria for improved performance

Table 4.1.16 Descriptive statistics for the influence of societal factors on goal attainment of selected Food and Beverage firms

Item Description	**SA**	**A**	**SD**	**D**	**NI**	**N**	**Mean**	**SD**	**Decision**
Goal attainment									
My organization has achieved strategic goals pursued in the following areas									
Employee commitment	51 22.6%	43 37.4%	16 13.9%	3 2.6%	2 1.7%	115	31.217	1.03575	Accepted
Job Satisfaction	48 41.7%	49 42.6%	12 10.4%	4 3.5%	2 1.7%	115	3.073	.93797	Accepted
Job Security	50 43.3%	51 44.3	11 9.6%	3 2.6%	-	115	3.2000	.95697	Accepted
Reputation of the company	57 49.6%	47 40.8%	9 7.8%	2 1.7%	-	115	3.0348	.83698	Accepted
Corporate Social Responsibility	51 44.3%	50 43.5%	11 9.6%	3 2.6%	-	115	3.1565	.83342	Accepted
Wealth creation	54 46.9%	46 40%	9 7.8%	4 3.5%		115	3.0696	.86574	Accepted
Capacity Building	54 46.9%	45 39.1%	11 9.6%	4 3.5%	1 0.9%	115	3.0696	.94332	Accepted
Manpower development	50 43.5%	51 44.3%	10 8.7%	2 1.7%	2 1.7%	115	3.1130	.86618	Accepted
Corporate culture such as shared beliefs, expectations and values	49 42.6%	56 48.6	10 8.7%	0	-	115	3.2435	.83342	Accepted
Employee welfare	54 46.9%	49 42.6%	10 8.7%	2 1.7%	-	115	3.1826	.85412	Accepted
Employee Diversity (employee background)	53 48.1%	43 37.4%	16 13.9%	1 0.9%	2 1.7%	115	3.2000	.90029	Accepted
The attainment of the above indicated goals in my organization is strongly influenced by the following societal factors:									
Supplier Environment									
Energy availability and cost	52 45.2%	46 40%	7 6.1%	6 5.2%	4 3.5%	115	3.2348	.77607	Accepted
Wage/price controls	53 46.1%	39 33.9%	16 13.9%	7 6.1%	-	115	2.5391	1.11832	Rejected
Raw materials price changes	45 39.1%	47 40.8%	15 9.7%	6 5.2%	2 1.7%	115	3.1652	.99057	Accepted
Competitors Environment									
Advertising campaigns of competitor	49 42.6%	40 34.8%	16 13.9%	7 6.1%	3 2.6%	115	2.9130	1.11265	Rejected
Strategies of the competitor	39 33.9%	39 33.9%	23 20%	8 6.6%	6 5.2%	115	3.0348	.93593	Accepted
Present and new products of competitors	45 39.1%	49 42.6%	13 11.3%	7 6.1%	1 0.9%	115	3.2174	.73488	Accepted
Political-Legal Environment									
Tax laws	53 46.1%	42 36.5%	16 13.9%	4 3.5%	-	115	3.1391	.80445	Accepted
Stability of government	46	51	13	5	-	115	3.0000	.91766	Accepted

	40%	44.3%	11.3%	4.3%					
Environment protection laws	45 39.1%	44 40.8%	15 13.04 %	8 6.9%	3 2.6%	115	2.5826	1.14695	Rejected
Attitudes towards foreign companies	52 45.2%	42 36.5%	13 11.3%	5 4.3%	3 2.6%	115	3.1652	.78282	Accepted
Security challenges	48 41.7%	50 43.5%	13 11.3%	4 3.5%	-	115	3.1739	.95753	Accepted
Political situation	51 44.3%	44 40.8%	13 11.3%	4 3.5%	3 2.6%	115	2.8522	1.0784	Rejected
Socio-cultural Environment									
Unexpected shifts in consumer tastes	46 40%	49 42.6%	8 6.9%	9 7.8%	3 2.6%	115	3.4783	2.98049	Accepted
Age distribution of population	49 42.6%	47 40.8%	11 11.3%	6 5.2%	2 1.7%	115	3.0783	.81808	Accepted
Level of education	47 40.9%	43 37.4%	18 15.7%	5 4.3%	2 1.7%	115	3.0522	.78185	Accepted
Health belief	47 40.9%	42 36.5%	13 11.3%	8 6.9%	5 4.3%	115	2.8696	1.00457	Rejected
Growth rate of population	51 44.3%	43 37.4%	14 12.1%	5 4.3%	2 1.7%	115	2.9043	1.01717	Rejected
Customer perception	45 39.1%	38 33.04 %	21 18.2%	6 5.2%	5 4.3%	115	3.0609	.95777	Accepted
Customer lifestyle	52 45.2%	43 37.4%	14 12.2%	4 3.5%	2 1.7%	115	3.0957	.99096	Accepted

Source; SPSS Version 21

The descriptive statistics above reveals that all factors but growth rate of population, health beliefs, environmental protection laws and wage/price control influence attainment of goals pertaining to employee commitment, job satisfaction, job security, reputation of company, employee welfare, corporate social responsibility, wealth creation, capacity building, manpower development and corporate cultures, expectations and values in the organizations studied.

4.2 Presentation of Results

This research centers on strategic environmental scanning and performance of selected Food and Beverage firms in Nigeria. The aims of the study are to examine the influence of taxation on performance of Food and Beverage firms in Nigeria, to examine the influence of strategic investment on sustainable survival of Food and Beverage firms , to ascertain the relationship between exchange rate and performance of Food and Beverage firms, to assess the extent to which the use of obsolete technological equipment affects the profitability of Food and Beverage firms, to determine the extent to which the value added by turnover(sales) affects the profitability of Food and Beverage firms and to examine the extent to which societal environmental factors affect the goal achievement of Food and Beverage firms.

Strategic environmental scanning is measured by economic, technological, societal and international environmental problems. This measurement is preferred in view of the over parametized nature of data for the number of years covered in order that no data is lost in the process. The associated variables are profitability, taxation, fixed assets, investment, current assets, export at a particular time, import at a particular time, balance of payment, exchange rate, investment, capacity utilization, industrial production, inflation, unemployment, Gross domestic product, turnover, share capital manufacturing, technology, investment and market share and goal attainment. In order to obtain the result, the researcher runs a set of regression based on ordinary least square. The following econometric methods were employed to test the reliability of the results; Adjusted R^2 used to judge the explanatory power, Durbin Waston used to test the serial correlation of an estimate. T-statistic used to judge the statistical significance of an estimate(Gujarati, 2009), (Koutsoyiannis, 1977) The presentation of result is based on ordinary least square technique and result of the regression in respect of the research questions and objectives are hereby stated below in tables 4.2.1a, 4.2.1b, 4.2.1c, 4.2.2a, 4.2.2b, 4.2.2c, 4.2.3a, 4.2.3b, 4.2.3c, 4.2.4a, 4.2.4b., 4.2.4c, 4.2.5a, 4.2.5b, 4.2.5c, 4.2.6a, 4.2.6b, 4.2.6c, 4.2.6d, and 4.2.6e below.

Table 4.2.1a: Regression result of influence of taxation on profitability of Food and IBeverage firms for Guinness Nigeria Plc

Dependent Variable: PRT
Method: Ordinary Least Square
Sample: 1990-2015
No of observation 26

Variable	Estimated Coefficient	Standard error	t-statistic	p-value
C	33.7875	63.4163	0.532788	[0.599]
ΔL TAX	-290529	5.18621	2.560195	[0.580]
ΔL TNOR	0.017767	1.63076	0.010895	[0.99]
ΔLMKTS	0.054903	0.947989	-2.057916	[0.954]
ΔLFASST	1.41947	3.19415	0.444397	[0.660]
ΔLINV	7.61360	3.40986	2.232282	[0.034]
ΔL EXP t-1	4.41250	1.8925	2.41281	[0.002]
ΔL IMP t-1	5.28137	2.6721	2.5263	[0.040]
ΔL BOP			1.9214	[0.030]

R2 Statistic= 2.19994, F Statistic 21.3120, Prob (F- Statistics) = [0.85]
DW = 1.37131
Source: Extract from Gret L Output (2016)

Table 4.2.1b Regression result of influence of taxation on profitability of food and beverage firms for Nestle Nigeria Plc

Dependent Variable: PRT

Method: Ordinary Least Square

Sample: 1990-2015

No of observation 26

Variable	Estimated Coefficient	Standard error	t-statistic	p-value
C	-13.1844	58.1444	0.570724	[0.573]
ΔL TAX	0.49003	5.29116	0.092614	[.927]
ΔL TNOR	-1.71091	1.56055	-2.09635	[.283]
ΔLMKTS	-1.08163	0.854204	-1.26625	[.217]
ΔLFASST	5.33897	2.74411	3.94561	[.063]
ΔLINV	-0.382425	0.384111	-0.995612	[.329]
ΔL EXP t-1	6.41360	3.28425	-2.814214	[.612]
ΔL IMP t-1	7.32765	4.31227	-2.13416	[.428]
ΔL BOP	4.43656	3.338123	-2.53142	[0.007]

R^2 Statistic= 0.193303,
F Statistic = 11.24604, Prob (F- Statistics) = [0.317]
DW = 1.22296
Source: Extract from Gret L Output (2016)

Table 4.2.1c : Regression result of influence of taxation on profitability of food and beverage firms for Cadbury Nigeria Plc

Dependent Variable: PRT

Method: Ordinary Least Square

Sample: 1990-2015

No of observation 26

Variable	Estimated Coefficient	Standard error	t-statistic	p-value
C	7.97204	0.443303	17.9833	[.000]
ΔL TAX	0.029751	0.33018	0.901059	[.367]
ΔL TNOR	0.77019	0.110060	7.05089	[.000]
ΔLMKTS	0.039368	0.19346	2.03498	[.052]
ΔLFASST	0.013880	0.23833	0.582385	[.565]
ΔLINV	0.824120	0.045721	2.62461	[.672]
ΔL EXP t-1	1.892411	0.143642	-2.1123	[0.00]
ΔL IMP t-1	0.672518	0.165436	-2.5711	[0.12]
ΔL BOP	0.865111	0.111991	1.6211	[0.111]

R2 Statistic= 0.694514
F Statistic = 15.3460 , Prob (F- Statistics) = [0.00]
DW = 0.377058
Source: Extratct from Gret L Output (2016)

Table 4.2.2a: Regression result of influence of strategic investment on profitability of food and beverage firms for **Guinness Nigeria Plc**

Method of estimation = Ordinary Least squares

Dependent variable : INV
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 10.6159 Std. dev. Of dep, var. = 2.21737
Sum of squared residuals 15.2738 Variance of residuals = 565696
Std error of regression = .152128 R-Squared = .999791
Adjusted R-Squared = .984945 LM het. Test = .083897[.772]
Durbin-Waston = 2.15973 [.350,907]Jarque-Bera test = 14,26060[.001]
Ramey's RESET2 = .293879[.592] F(zero slopes) = 60.6091[.000]
Schwarz B.I.C = 42.2368 Log likelihood = .33.57225

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	3.91534	3.60048	2.3619	[.183]
ΔL PRT	-1.43381	2.76488	-2.518581	[.608]
ΔL SHCAP	.3852989	1.75352	2.19728	[.037]
ΔL FASST	.013046	.016981	-.868282	[.449]
ΔL CASST	.660997	.119042	4.55263	[000]
Δ TNOR	-347878	.18792	-.98722	[.116]
Δ MKTSH	.256671	.07672	2.25831	[.221]

Source : Gret – L package

4.2.2b Regression result of influence of strategic investment on profitability of food and beverage firms for **Nestle Nigeria Plc**

Method of estimation = Ordinary Least squares
Dependent variable : INV
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 14.1849 Std. dev. Of dep, var. = 1.69819
Sum of squared residuals 9.18888 Variance of residuals =
Std error of regression = .606263 R-Squared = 9.348327
Adjusted R-Squared = .872548 LM het. Test = 2.65808[.103]
Durbin-Waston = 2.15973 [.350,907]Jarque-Bera test = 14,26060[.001]
Ramey's RESET2 = 3.20454[.086] F(zero slopes) = 36.3714[.000]
Schwarz B.I.C = 37.5722 Log likelihood = 25.4422

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	244.098	497.122	1.491022	[0.627]
ΔL PRT	-268.351	791.836	4.228897	[.737]
ΔL SHCAP	-391.948	1103.46	7.355200	[.725]
ΔL FASST	-287.030	121.193	-2.36837	[.025]
ΔL CASST	-13993E-02	.011201	.116949	[.908]
Δ TNOR	.228917	.0231185	1.99872	[.778]
Δ MKTSH	.48792	0.412358	2.1161381	[.638]

Source : Gret – L package(2016)

Table 4.2.2c Regression result of influence of strategic investment on profitability of food and beverage firms for **Cadbury Nigeria Plc**

Method of estimation = ordinary least squares
Dependent variable : INV
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 1.95346
Sum of squared residuals 2.60787 Variance of residuals = .096588
Std error of regression = .310786 R-Squared = 9.977955
Adjusted R-Squared = .974689
Durbin-Waston = 1.45978[.006'227] Jarque-Bera test = .503095[.778]
Ramey's RESET2 = 199374[.659] F(zero slopes) = 299.437[.000]
Log likelihood = 5.29079

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	33.7875	63.4163	.532788	[.599]
ΔL PRT	.17767	1.63076	2.010895	[.991]
ΔL SHCAP	.-2.90529	5.18621	-560195	[.580]
ΔL FASST	.054903	.947989	2.057916	[.991]
ΔL CASST	1.41947	3.19415	1.66397	[.660]
Δ TNOR	0.28722	2.38711	2.92134	[.1-4]
Δ MKTSH	0.37789	1.99861	1.32413	[.0100]

Source : Gret – L package(2016)

Table 4.2.3a Regression result of influence of exchange rate on profitability of food and beverage firms for **Guinness Nigeria Plc**

Method of estimation = ordinary least squares
Dependent variable : EXCHRCurrent Sample : 1990-2015
Number of Observations : 26 Mean of dep. Var. = 15.0886
Std. dev. Of dep, var. = 1.95346 Sum of squared residuals 2.60797
Variance of residuals = .096588 Std error of regression = .310786
R-Squared = .78485 Adjusted R-Squared = .8857289
LM het. Test = .779561[.377]
Durbin-Waston = 1.45978[.006,227] Jarque-Bera test = .503095[.778]
Ramey's RESET2 = .199374[.000] F(zero slopes) = 299.437[.000]
Schwarz B.I.C = 13.9551 Log likelihood = -5.29079

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	14.1654	.571100	4.5506	[000]
ΔL PRT	.755756	.061733	-2.52305	[.018]
ΔL INDP	.782174	.23864	2.2142	[.000]
ΔL MANU	.530516	.048762	3.77817	[.000]
ΔL TNOR	.812749	0.50016	.254903	[.901]
ΔL INFL	.642831	0.32262	-2.4181	[.700]
ΔL MKTSH	.88755	.26715	-1.9972	[.184]
ΔL SCAP	.48667	0.28143	2.32181	[.000]
ΔL UNEM	.734215	0.27232	2.989766	[0.051]
ΔL IMPt-1	.643318	0.36311	2.511281	[0.211]
ΔL EXP t-1	.82616	0.28142	1.992364	[0.601]
ΔLBOP	.582162	0.27281	2.143171	[0.102]
ΔL GDP	.793295	0.38156	1.821471	[0.001]

Source : Gret – L package(2016)

Table 4.2.3b Regression result of influence of exchange rate on profitability of food and beverage firms for **Nestle Nigeria Plc**

Method of estimation = ordinary least squares
Dependent variable : EXCHRCurrent Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 13.7242 Std. dev. Of dep, var. = 2.28953
Sum of squared residuals 48.4249 Variance of residuals = 1.86250
Std error of regression = 1.36473 R-Squared = .9025060
Adjusted R-Squared = .611783 LM het. Test = .188187[.170]
Durbin-Waston = 2.13692 Jarque-Bera test = .229.878[000]
Ramey's RESET2 = .852349[.365] F(zero slopes) = 12.2497[.000]
Schwarz B.I.C = 62.4317 Log likelihood = -52.0345

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	24.0821	5.71094	4.21683	[000]
ΔL PRT	.64435	.258218	-.171697	[.865]
ΔL INDP	.628694	.363010	1.71697	[.865]
ΔL MANU	.639169	.302385	2.129534	[.898]
ΔL TNOR	.419814	.235599	-508551	[.615]
ΔL INFL	-5.57325	1.27755	-2.01420	[0.54]
ΔL MKTSH	.546684	1.441361	2.34548	[0.411]
ΔL SCAP	.681459	.384020	2.00831	[0.521]
ΔL UNEM	.52448	.200121	1.98991	[0.15]
ΔL IMPt-1	.732216	.375025	2.01121	[0.0]
ΔL EXP t-1	.654782	1.324121	-2.51612	[0.112]
ΔLBOP	.856434	1.38466	1.99871	[0.118]
ΔL GDP	.681122	.43447	1.81751	[0.000]

Source : Gret – L package(2016)

Table 4.2.3c Regression result of influence of exchange rate on profitability of food and beverage firms for **Cadbury Nigeria Plc**

Method of estimation = ordinary least squares
Dependent variable : EXCHRCurrent Sample : 1990-2015
Number of Observations : 26
Std. dev. Of dep, var. = 1.64374
Sum of squared residuals 13.3457 Variance of residuals = .513296
Std error of regression = .716447 R-Squared = .840664
Adjusted R-Squared = .810023 LM het. Test = 3.11649[.078]
Durbin-Waston = 1.09514[.000,045] Jarque-Bera test = 2.60401[.272]
Ramey's RESET2 = 8.02300[.009] F(zero slopes) = 27.4355[.000]
Schwarz B.I.C = 41.8106 Log likelihood = -31.4134

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	14.1654	3.338629	4.30066	[000]
ΔL PRT	-582913	.283081	-2.05918	[.050]
ΔL INDP	.645296	.048714	1.929842	[.361]
ΔL MANU	.83083E-02	.424216R-02	-2.6177434	[.542]
ΔL TNOR	4.336741	.124438	-2.52025	[.141]
ΔL INFL	.861513	.184599	4.66695	[.000]
ΔL MKTSH	.641324	.241782	1.998562	[.006]
ΔL SCAP	.487582	.19678	-2.781436	[.0314]
ΔL UNEM	.556856	.21342	1.99914	[0.18]
ΔL IMPt-1	.58126	.32413	2.5527	[0.00]
ΔL EXP t-1	.76741	.412557	1.89459	[0.14]
ΔLBOP	.81252	.3185410	2.64481	[0.42]
ΔL GDP	-961414	.422108	2.115671	[0.603]

Source : Gret – L package(2016)

Table 4.2.4a Regression result of the influence of technology on the profitability of Food and Beverage firms for **Guinness Nigeria Plc**

Method of estimation = ordinary least squares
Dependent variable : PRT Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 10.6159 Std. dev. Of dep, var. = 2.21737
Sum of squared residuals 15.2738 Variance of residuals = 565696
Std error of regression = .152128 R-Squared = .978466
Durbin-Waston = 2.15973[.350,907] Jarque-Bera test = 14.26060[.001]
Ramey's RESET2 = .293879 F(zero slopes) = 60. 6091[.000]
Schwarz B.I.C = 42.2368 Log likelihood = 33.5725

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	6.91534	3.60048	1.3619	[183]
ΔLTECH	-743381	2.76488	-2.518581	[.608]
ΔL INV	.585298	1.75352	3.19728	[.037]
ΔL TNOR	-613046	.16981	-.768282	[.449]
ΔL FASST	.660997	.119042	4.44262	[.000]
ΔL CASST	-3.47878	.18792	-.198772	[.116]
ΔL SHCAP	.256671	.07672	1.25831	[.221]
ΔL MANU	.465135	.128153	2.94432	[011]
ΔL INDP	.8123481	2.01382	2.01833	[0.60]

Source : Gret – L package(2016)

Table 4.2.4b Regression result of the influence of technology on the profitability of Food and Beverage firms for **Nestle Nigeria Plc**

Method of estimation = ordinary least squares
Dependent variable : PRT Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 11.1849 Std. dev. Of dep, var. = 1.69819
Sum of squared residuals 9.18888 Variance of residuals =
Std error of regression = .606263 R-Squared = .8947216
Adjusted R-Squared = .872548 LM het. Test = 2.65808[.103]
Durbin-Waston = 2.18375[.208,973] Jarque-Bera test = .1.15252[.562]
Ramey's RESET2 = 3.20454[.086] F(zero slopes) = 299.437[.000]
Schwarz B.I.C = 37.5722 Log likelihood = -25.4422

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	244.098	4971122	1.491011	[0.627]
ΔLTECH	868.357	.791836	2.338897	[.737]
ΔL INV	-391.948	1.10346	2.355200	[.725]
ΔL TNOR	-287.030	.12193	-2.36837	[.025]
ΔL FASST	.13992E02	0.11201	.116949	[.908]
ΔL CASST	.528917	0.231185.	1.99872	[.778]
ΔL SHCAP	.687928	0.412358	2.1161381	[.6387]
ΔL MANU	0.0638401	0.2211841	.245538	[.003]
ΔL INDP	7.647302	0.231176	2.227241	[0.004]

Source : Gret – L package(2016)

Table 4.2.4c Regression result of the influence of technology on the profitability of food and beverage firms for **Cadbury Nigeria Plc**

Method of estimation = ordinary least squares
Dependent variable : PRT Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 11.1849 Std. dev. Of dep, var. = 1.95346
Sum of squared residuals 2.60787 Variance of residuals = 0.96588
Std error of regression = .310786 R-Squared = .977955
Adjusted R-Squared = .974689 LM het. Test = .779561[.377]
Durbin-Waston = 1.45978[.009,277] Jarque-Bera test = .503095[.778]
Ramey's RESET2 = 199374[.659] F(zero slopes) = 209.031[.000]
Schwarz B.I.C = 37.5722 Log likelihood = 5.29079

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	33.7875	03.4163	.532788	[0.599]
ΔLTECH	-6.90529	2.18621	-.560195	[.580]
ΔL INV	.7767	1.633076	2.010895	[.991]
ΔL TNOR	0.054903	.447989	2.057916	[.954]
ΔL FASST	3.41947	0.19415	1.644397	[.660]
ΔL CASST	6.1360	3.40986	2.23282	[.034]
ΔL SHCAP	6.28722	2.38711	2.92134	[.104]
ΔL MANU	5.37789	1.99861	1.32413	[.0100]
ΔL INDP	7.32711	2.89242	2.046321	[0.11]

Source : Gret – L package(2016)

Table 4.2.5a Regression result on the value added by turnover (sales) on the profitability of food and beverage firms for **Guinness Nigeria Plc**

Method of estimation = ordinary least squares
Dependent variable : TNOR
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 11.1657 Std. dev. Of dep, var. = 1.03677
Sum of squared residuals 17.2865 Variance of residuals = .596087
R-Squared = .596087
Adjusted R-Squared = .845441 LM het. Test = .1.03035[.310]
Durbin-Waston = 1.217151 [.321] Jarque-Bera test = 2.17151[.321]
Ramey's RESET2 = .7.95839[.009] F(zero slopes) = 238.437[.000]
Schwarz B.I.C = 45.5604 Log likelihood = .36.7445

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	15.5529	3.98060	3.90718	[001]
ΔL EXCHR	-179243	.171230	-1.04680	[.304]
ΔL PRT	-014780	.82630e02	-1.78871	[.084]
ΔL INV	.289034	.181993	1.588161	[.123]
ΔL CAPU	-1.69249	.745011	-227177	[.031]
Δ LINDP	.48792	.041235	2.116138	[.638]
Δ LINFL	.228917	0.231185	1.99872	[.7718]
ΔLUNEM	-346728	0.52146	2.66731	[.000]
ΔLGDP	294261	0.332464	1.99344	[.616]

Source : Gret – L package(2016)

Table 4.2.5b Regression result on the value added by turnover (sales) on the profitability of food and beverage firms for **Nestle Nigeria Plc**

Method of estimation = ordinary least squares
Dependent variable : TNOR
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 11.4088 Std. dev. Of dep, var. = .645272
Sum of squared residuals 9.74113 Variance of residuals = .600652
R-Squared = .745321
Adjusted R-Squared = .744319 LM het. Test = .95263E-03[.975]
Durbin-Waston = 1.85591 [.100.665]] Jarque-Bera test = 93.6968[.000]
Ramey's RESET2 = .444827[.511] F(zero slopes) = 2.19421[.000]
Schwarz B.I.C = 35.0403 Log likelihood = .26.3760

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	11.9486	1.60526	7.44336	[.000]
ΔL EXCHR	-119611	.092145	-1028968	[.208]
ΔL PRT	.52447	.219705	.237817	[.813]
ΔL INV	.01449	.038174	.377724	[.709]
ΔL CAPU	.182497	.092997	1.96240	[.060]
Δ LINDP	.0411821	.318604	1.61330	[.000]
Δ LINFL	.0812322	.046412	1.18920	[0.10]
ΔLUNEM	.0812322	.063141	-2.34350	[.818]
ΔLGDP	0.0431631	.046824	1.181176	[.005]

Source : Gret – L package(2016)

Table 4.2.5c Regression result on the value added by turnover (sales) on the profitability of food and beverage firms for **Cadbury Nigeria Plc**

Method of estimation = ordinary least squares
Dependent variable : TNOR
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 13.7242 Std. dev. Of dep, var. = 13.7242
Sum of squared residuals 48.4249 Variance of residuals = .1.36473
R-Squared = .702000
Adjusted R-Squared = .644613 LM het. Test = .1.88187[.170]
Durbin-Waston = 1.217151 [.321] Jarque-Bera test = 229.878[.000]
Ramey's RESET2 = .852349[..365] F(zero slopes) = 12.2497[.000]
Schwarz B.I.C = 62.4317 Log likelihood = 52.0345

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	12.1673	1.63992	7.41946	[.000]
ΔL EXCHR	-149544	.105400	1.41882	[.167]
ΔL PRT	.671002	.219790	.305293	[.762]
ΔL INV	.013292	.037992	.0349840	[.729]
ΔL CAPU	.194749	094557	2.05959	[.049]
Δ LINDP	.284728	.024118	2.11318	[056]
Δ LINFL	.73358	.216470	1.93426	[.031]
ΔLUNEM	.185658	.0718510	2.359651	[.042]
ΔLGDP	.162425	.0314620	.416182	[.004]

Source : Gret – L package(2016)

Table 4.2.5d Regression result on the Influence of Environmental Factors on Goal Attainment of Food and Beverage Firms.

Dependent variable: Goal attainment

	Coefficient	Std error	t-Statistic	Prob
(Constant)	2.619	.291	9.016	.000
SUP	.019	.041	1.115	.000
COM	.038	.045	3.853	.006
SOC	.050	.048	2.452	.295
POL	.063	.056	2.001	.007

Source: SPSS (Version 21)

Durbin waston= 0.643
Adjusted R^2 = 0.551
F-Statistics = 7.811. prob (F-Statistics) =0.021

4.2.6 Industry Analysis: Food and Beverage Industry

Table 4.2.6a: Regression result of **Influence of Taxation on Profitability of Food and Beverage Industry**

Dependent variable : PRT
Current Sample : 1990-2015
Number of Observations : 25
Mean of dep. Var. = 11.41611 Std. dev. Of dep, var. = 11.1849
Sum of squared residuals 9.18888 Variance of residuals = .435624
Std error of regression = 501864 R-Squared = .9.972341
Adjusted R-Squared = ..9423172 LM het. Test = 2.56725[.101]
Durbin-Waston = 2.79385 [.209973] Jarque-Bera test = 1.11157[.661]
Ramey's RESET2 = 3.20454[.086] F(zero slopes) = 36.3714[.000]
Schwarz B.I.C = 37.5722 Log likelihood = -25.442

Variable	Estimated Coefficient	Standard error	t-statistic	p-value
C	8.89194	4.68171	5.14845	[000]
ΔL TAX	.360377	.477672	2.13134	[.053]
ΔL TNOR	-135004	.113370	-1.491992	[.241]
ΔLMKTS	-325429e-04	.590173E-02	-.092164	[.942]
ΔLFASST	-121732	.30050	-1.41017	[.331]
ΔLINV	.178658	.366165	.0961856	[.342]
ΔL EXP t-1	.085923	.186345	2.51628	[.204]
ΔL IMP t-1	061381	.034436	1.0062	[0.44]
ΔL BOP	05213	0.74316	-2.9125	[0.01]

Source: Extract from Gret L Output (2016)

Table 4.2.6b: Regression result of **Influence of Strategic Investment on sustainable survival of Food and Beverage Industry**

Method of estimation = Ordinary Least squares
Dependent variable : PRT
Current Sample : 1990-2015
Number of Observations : 25
Mean of dep. Var. = 13.7242 Std. dev. Of dep, var. = 2.21737
Sum of squared residuals 42.8134 Variance of residuals = 1.1756
Std error of regression = 1.36473 R-Squared = .9431110
Adjusted R-Squared = .744322 LM het. Test = .083897[.772]
Durbin-Waston = 2.13692 [.243,935]Jarque-Bera test = 119.781[.000]
F(zero slopes) = 12.497[.000]
Schwarz B.I.C = 62.4317 Log likelihood = .52.0345

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	24.0824	5.71094	4.14614	[.000]
ΔL PRT	.84436	2.1582192	-.291696	[.865]
ΔL SHCAP	.6328695	1.263040	2.94691	[.781]
ΔL FASST	.739160	.302385	2.319135	[.898]
ΔL CASST	.519845	2.235599	-608554	[.615]
Δ TNOR	-6.57316	1.87755	-2.64426	[.045]
Δ MKTSH	.846915	1.65474	2.54544	[.321]

Source : Gret – L package(2016)

Table 4.2.6c Regression result of **Influence of Exchange rate on Profitability of Food and Beverage industry**

Method of estimation = Ordinary Least Squares
Dependent variable : PRT Current Sample : 1990-2015
Number of Observations : 25 Mean of dep. Var. =12.26626
Std. dev. Of dep, var. = 2.643124 Sum of squared residuals 3.023510
Variance of residuals = .096588 std. error of Regression 0.398914
R-Squared = 0.95443 Adjusted R-Squared = .8352281
Log likelihood -9.067747
Durbin-Waston = 1.669612
F(zero slopes) = 0.==5,19)
Schwarz B.I.C = 37.44875 Log likelihood = -39.32259

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	3.83788	3.18006	3.2523	[004]
ΔL EXCHR	0.672313	2.703943	6.4700	[.011]
ΔL INDP	-0.00553376	1.7360974	2.4534	[.879]
ΔL MANU	0.04923	3.640791	2.3495	[.780]
ΔL TNOR	0.463529	0.112414	4.4237	[.004]
ΔL INFL	0.0698195	0.0698195	0.3116	[.694]
ΔL MKTSH	.28948	1.992544	1.8925	[.018]
ΔL SCAP	.35718	2.41152	0.41190	[0.64]
ΔL UNEM	.47382	0.61126	2.61315	[0.22]
$\Delta L\ IMP_{t-1}$	.11284	1.78315	0.8845	[0.29]
$\Delta L\ EXP_{t-1}$	0.69428	0.385630	2.110831	[0.11]
ΔLBOP	.512337	0.3211021	1.978602	[0.31]
ΔL GDP	0.721346	.434015	1.724426	[0.12]

Source : Gret – L package(2016)

Table 4.2.6d Regression result of the **Influence of Technology on the Profitability of Food and Beverage Industry**

Method of estimation = ordinary least squares
Dependent variable : PRT Current Sample : 1990-2015
Number of Observations : 25
Mean of dep. Var. = 12.85682 Std. dev. Of dep, var. = 2.454839
Sum of squared residuals 34.01514 Variance of residuals = .691261
R-Squared = .978466 LM het. Tet 0.798080[.778]
Durbin-Waston = 1.581675 Jarque-Bera test = 5.68102[.058]
F(zero slopes) = 60. 6091[.000] Adjusted R-squared 0.825420
Schwarz B.I.C = 101.1773 Log likelihood = 39.32259

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	2.20052	3.14013	3.7045	[.491]
ΔLTECH	0.567224	0.951900	2.6164	[.304]
ΔL INV	0.06872	2.76112	2.4337	[.026]
ΔL TNOR	-0.383123	1.92814	-1.9153	[.11]
ΔL FASST	-0.110318	1.847052	2.6515	[.403]
ΔL CASST	-0.594622	0.604417	-0.2619	[.604]
ΔL SHCAP	-0.207064	0.3061010	-0.6815	[.504]
ΔL MANU	.317614	0.3152010	0.5783	[011]
ΔL INDP	0.528545	0.424210	2.31218	[0.14]

Source : Gret – L package(2016)

Table 4.2.6e Regression result on the **Value added by turnover (sales) on the Profitability of Food and Beverage Industry**

Method of estimation = ordinary least squares
Dependent variable : PRT
Current Sample : 1990-2015
Number of Observations : 25
Mean of dep. Var. = 9.554212 Std. dev. Of dep, var. = 1.74195
Sum of squared residuals 14.4132 Variance of residuals = .513296
R-Squared = .951226
Adjusted R-Squared = .940025 LM het. Test = 3.11649[0.78]
Durbin-Waston = 1.09514 [.000,.045] Jarque-Bera test = 2.52523[.232]
Ramey's RESET2 = 8.02300[.009] F(zero slopes) = 27.4355[.000]
Schwarz B.I.C = 41.8106 Log likelihood = .31.4134

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	13.4534	4.3752	4.40011	[000]
ΔL EXCHR	-652824	2.913164	-2.15924	[.052]
ΔL PRT	.641138	1.949749	2.721125	[.315]
ΔL INV	.92123E-02	.923417R-02	-2.587315	[.432]
ΔL CAPU	5.225732	2.424434	-2.4026	[.131]
Δ LINDP	.822514	.214581	2.76653	[.001]
Δ LINFL	-634524	.21627	1.99625	[.006]
ΔLUNEM	.567483	.19461	-2.738124	[.0313]
ΔLGDP	.525368	.231340	1.772	[.016]

Source : Gret – L package(2016)

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Influence of Environmental Scanning on Performance of Food and Beverage Firms- Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc

5.1.1 Influenceof Taxation on profitability of Food and Beverage Firms

Tables 4.2.1a, 4.2.2a and 4.2.3a,present the regression result of the influence of taxation on performance of Food and Beverage firms with particular reference to Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc respectively. The equation regresses profitability on taxation, turnover, market share, fixed assets, investment, export at a particular point in time, import at a particular point in time and balance of payment. This is to establish a relationship between the dependent and independent variables in the Food and Beverage firms. For Guinness Nigeria Plc, the coefficient of the constant term assumes a positive sign and is statistically not significant at 0.6 percent. For Nestle, the estimated coefficient of the constant term is negatively signed and equally not statistically significant at 0.5 percent. The case in these two companies is different from that of Cadbury Nigeria Plc whose estimated coefficient of the constant term assumes a positive sign and is statistically significant at better than 0.1 percent. The implication in the case of Cadbury is that there is a positive relationship between the dependent and the independent variables. For Guinness Nigeria plc, the coefficient of taxation is negatively signed and it is statistically significant at 0.6 percent. The reverse is the case in Nestle Nigeria Plc whose coefficient of taxation is a positively signed but statistically not significant. The

coefficient of turnover is positively signed and statistically not significant for Guinness Nigeria plc whereas for Nestle and Cadbury, the coefficient of turnover is negatively signed and statistically significant at 0.3 percent (Nestle) and at better than 0.1 percent (Cadbury). This implies that for Nestle and Cadbury, increase in profit leads to high rate of taxation. The coefficient of market share for Guinness is statistically significant at 0.1 percent and statistically not significant at 0.2 percent (Nestle Plc) but statistically significant at 0.1 percent (Cadbury). This implies that for the three firms, increase in market share leads to profitability. This of course is in concert with aprorai expectation of the three firms whose primary objective is profit maximization. This argument is further supported by the findings of Bayode and Adebola (2012) strategic environmental scanning of the Food and Beverage industry environment will lead to acquisition of great market share of the companies. The coefficient of fixed assets is positively signed for the three companies but is only statistically significant in Nestle Nigeria plc at 0.06 percent. It therefore implies that increase in fixed assets brings about increase in profitability in Nestle Nigeria Plc. Investment shows a positive coefficient and also statistically significant at 0.03 and 0.7 percent for Guinness Nigeria Plc and Cadbury Nigeria Plc respectively. For Nestle Nigeria plc, investment has a negatively signed coefficient and statistically not significant at 0.3 percent. This shows that investment activities influence profit of Food and Beverage firms. This is in line with the findings of Akpan, Ikon, Okereke and Momoh (2016) which found 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 Export at a particular time carries a positive sign and statistically significant for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc at 0.002, 0.6 and at better than 0.1 percent respectively. This shows that export activities affect the performance of food and beverage firms. In the same vein, the coefficient of import at a particular time carries a positive sign for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc, and is statistically significant at 0.04 percent, 0.42 percent and 0.12 percent respectively. From the result, economic environmental variables like taxation were found to have an influence on performance. This is in concert with the findings of Enekwe, Ordu and Nwoha (2013) who found that scanning the economic environment is crucial for manufacturing firms due to the impact it has on their performance.

Test of Hypothesis 1

Hypothesis 1 which states thattaxation has no significant influence on the profitability of Food and Beverage firms is hereby tested using F statistics. For Guinness Nigeria Plc, the F-statistic is 21.3120 of taxation and is significant at 0.9 percent. This implies that the null hypothesis is rejected. For Nestle Nigeria Plc, the F-statistic is 11.24604 and is significant at 0.3 per cent. This implies that the null hypothesis is rejected. For Cadbury Nigeria Plc, the F-statistic is 15.3460 and is significant at better than 0.1 per cent.

Thus From the analysis, the Null Hypothesis is rejected and the alternate hypothesis which states that taxation has a significant influence on the profitability of food and beverage firms is accepted.Based on this result, objective 1 which is to determine the influence of taxation on the profitability of food and beverage firms is achieved.

5.1.2 Influence of Strategic Investment on Profitability of Food and Beverage Firms

Tables 4.2.1b, 4.2.2b and 4.2.3b present the regression result of the relationship between strategic investment and the sustainable survival of food and beverage firmswith particular reference to Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc respectively. The equation regresses investment which is the dependent variable on profitability, share capital, fixed assets, current assets, turnover and market share. The coefficient of the constant term is statistically significant at 0.2 percent for Guinness Nigeria Plc but not statistically significant for Nestle Nigeria Plc and Cadbury Nigeria Plc at 0.6 per cent. The regression coefficient ofprofitability is negative but is statistically significant at 0.6 percent for Guinness Nigeria Plc. Profitability however carries a positive coefficient for Nestle Nigeria Plc and Cadbury Nigeria plc and also statistically significant at 0.7 percent and 1.0 percent respectively. This implies that strategic investment activities in Nestle Nigeria plc and Cadbury Nigeria Plc bring about an increase in profit. This is in line with the findings of Akpan et al (2016) that investment leads to profitability of food and beverage firms in Nigeria. For Guinness Nigeria Plc, strategic investment is seen to have a significant relationship with profit although it is negative. This implies that investment activities in Guinness Nigeria plc yield results against management expectation. The regression coefficient of share capital for Guinness Nigeria plc, Nestle Nigeria plc and Cadbury Nigeria Plc is positive and statistically significant at 0.04 percent, negative and statistically significant at 0.7 percent as well as negative and statistically not significant at 0.6 percent for the three firms respectively.This

implies that strategic investments made by Guinness Nigeria plc and Cadbury Nigeria Plc positively influence their share capital. For Nestle Nigeria plc, strategic investment has a negative influence on the share capital. Fixed assets carries a positive regression coefficient for Guinness Nigeria plc, negative regression coefficient for Nestle Nigeria Plc and positive regression coefficient for Cadbury Nigeria plc. It is also statistically significant for the three firms at various probability levels. This implies that the value of fixed assets in the three companies are all influenced by their strategic Investment activities. However, for Nestle Nigeria Plc, strategic investment activities have a negative influence on fixed assets. Current assets have a positive coefficient for the three firms but is statistically significant only for Guinness Nigeria plc at better than 0.1 percent. This implies that strategic investment has influence on current assets only for Guinness Nigeria Plc. Turnover bears a negative coefficient for Guinness Nigeria plc and is not statistically significant while for Nestle Nigeria plc, it has a positive coefficient but not statistically significant. For Cadbury Nigeria Plc, turnover has a positive coefficient and is statistically significant at 0.1 percent. This shows that turnover on sales is positively influenced by the strategic investment activities only in Cadbury Nigeria Plc.Market share carries a positive coefficient for the three firms and is statistically significant in all but Cadbury Nigeria plc where market share is not statistically significant. This shows that market share of Cadbury Nigeria Plc is not influenced by their investment activities.

Test of hypothesis 2

Hypothesis 2 which states that strategic investment has no significant positive influence on profitability of Food and Beverage firms is tested using F statistics. For Guinness Nigeria Plc, the F-statistic is 60.6091 and is significant at better than 0.1 per cent. This implies that the null hypothesis is rejected. For Nestle Nigeria Plc, the F-statistic is 36.3714 and is significant at better than 0.1 per cent. This implies that the null hypothesis is rejected. For Cadbury Nigeria Plc, the F-statistic is 299.437 and is significant at better than 0.1 percent. The Null Hypothesis is therefore rejected.

From the analysis above therefore, the Null Hypothesis is rejected and the alternate hypothesis which states that strategic investment has a significant influence on the profitability of food and beverage firms is accepted.

Based on this result, objective two which is to determine the influence of strategic investment on the profitability of food and beverage firms is hereby achieved.

5.1.3 Exchange Rate and Profitability of Food and Beverage Firms in Nigeria

Tables 4.2.1c,4.2.2c and 4.2.3crepresent the regression result of the influence of exchange rate instability on profitability of food and beverage firmswith particular reference to Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc respectively. A careful look at the result as presented in the tables aforementioned explains the nature of influence of exchange rate instability on profitability of selected food and beverage firms with respect to Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc. The equation has exchange rate as the dependent variable while Profitability(PRT), Industrial production (INDP), Manufacturing (MANU), Turnover (TNOR), Inflation (INFLA), Market share (MKTSH), Share capital (SHCAP), Unemployment (UNEM), Import at a particular time (IMP_{t-1}), Export at a particular time (EXP_{t-1}), Balance of payment (BOP) and Gross Domestic Product (GDP) for each selected food and beverage firm. The coefficient of the constant term for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc is positive and statistically significant at better than 0.1 percent. This implies that at zero performance of all the independent variables, exchange rate influences performance and can bring about increase in profitability. This is in line with the findings of Enekwe, Ordu and Nwoha (2013) that exchange rate is a very important variable affecting the profitability of manufacturing firms in Nigeria. Profitability reveals different facts for the three firms. While it reveals a positive coefficient for Guinness Nigeria Plc and Nestle Nigeria, it shows a negative coefficient for Cadbury. Also, while profitability is statistically significant for Guinness Nigeria plc and Cadbury Nigeria Plc at 0.9 and 0.05 percent respectively, it is statistically not significant for Nestle Nigeria Plc. This implies that exchange instability affects the profit of food and beverage firms. The coefficient of industrial production is positive in the three firms but statistically significant only in Guinness Nigeria Plc. This implies that industrial productive activities are influenced by exchange rate in Guinness Nigeria Plc. The coefficient of manufacturing carries a positive sign for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria plc and is statistically significant at better than 1 percent, 0.9 percent and 0.5 percent for the three firms respectively. This implies that a change in exchange rate will bring about a great change on manufacturing activities of food and beverage firms. The coefficient of Turnover on sales is also positive for the three firms and also statistically significant at 0.9 percent for Guinness Nigeria Plc, 0.6 percent for Nestle Nigeria Plc and 0.1 percent for

Cadbury Nigeria Plc. This shows that a positive changein exchange rate will bring about an increase in turnover on sales in food and beverage firms. The coefficient of inflation has a positive sign for Guinness Nigeria Plc and Cadbury Nigeria Plc and is statistically significant at 0.7 and better than 1 percent respectively while for Nestle Nigeria Plc, Inflation assumes a negative coefficient and is statistically significant at 0.5 percent. This means that exchange rate instability can bring about increase in inflation which affects the performance of food and beverage firms. Market share has a positive coefficient for Guinness Nigeria Plc but statistically not significant. It also has a positive coefficient for Nestle and statistically significant at 0.4 percent and a negative coefficient for Cadbury Nigeria Plc but statistically not significant. This implies that exchange ratehas little or no influence on the market share acquisition of Guinness Nigeria Plc and Cadbury Nigeria Plc. Acquisition of market share is however affected by exchange rate instability in Nestle Nigeria Plc. The coefficient of share capital is positive for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria plc and is statistically significant at better than 1 percent, 0 .5 percent and 0.03 percent respectively. This shows that there is a significant linkage between exchange rate and share capital of food and beverage firms. The coefficient of unemployment is equally positive for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria plc and is statistically significant only in Guinness Nigeria Plc at 0.05 percent. It therefore implies that unemployment associated with exchange rate instability affects performance of Guinness Nigeria Plc. Import at a particular time carries a positive sign for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria plc and is statistically significant at 0.2 percent, better than 1 percent and better than 1 percent respectively. Export at a particular time carries a positive sign for the three firms but is statistically significant only in Nestle Nigeria Plc. The coefficient of Balance of payment is positive for the three firms but is statistically significant only for Guinness Nigeria Plc and Cadbury Nigeria Plc at 0.1 per cent and 0.4 percent respectively. Gross Domestic product is significant only in Cadbury Nigeria plc at 0.6 percent.This implies that instability of exchange rate affects GDP thus, having an impact on the performance of Guinness Nigeria Plc.

From the result, the Adjusted R-squared shows that 89 percent of changes in exchange rate instability is explained by profitability, industrial production, manufacturing, turnover, inflation, market share, share capital, unemployment, import at a particular point in time,

export at a particular point in time, Balance of payment and Gross Domestic Product. Durbin- Waston is greater than R-Squared in the three firms which implies that is correlation among the variables in the model.

Test of Hypothesis 3

Hypothesis 3 which states that exchange rate has is no significant influence on the profitability of Food and Beverage firms is tested using F-statistics. The F statistics for Guinness Nigeria Plc is 299.437 and is significant at better than 0.1 per cent. The F-statistic for Nestle Nigeria Plc is12.2497 and is significant at better than 0.1 per cent while for Cadbury Nigeria Plc, the F-statistic is 27.4134 and is also significant at better than 0.1 per cent. We therefore conclude that exchange rate has a significant influence on the profitability of food and beverage firms.Based on this result, objective No 3 which is to ascertain the influence of exchange rate on food and beverage firms is hereby achieved.

5.1.4 Influence of Technology on Profitability of Food and Beverage Firms.

Tables 4.2.1d, 4.2.2d and 4.2.3d represent the regression result of the influence of technology on performance of food and beverage firms with particular reference to Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc respectively. The results present the nature of the influence of technology on performance of selected food and beverage firms with respect to Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc. The equation has profitability as the dependent variable while Technology, (TECH), Investment(INV), Tunover(TNOR), Fixed assets(FASST), Current Assets (CASST), Share capital (SHCAP), Manufacturing (MANU) and Industrial production (INDP) are the independent variables for each selected food and beverage firm. The coefficient of the constant term for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc is positive and statistically not significant. The coefficient of technology is negative and statistically significant at 0.6 percent for Guinness Nigeria Plc, positive for Nestle Nigeria Plc and statistically significant at 0.7 per cent and negative for Cadbury

Nigeria Plc and not statistically significant at 0.6 percent. Investment has a positive coefficient for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc and is statistically significant at 0.0 per cent, 0.7 percent and1.0 percent respectively. The coefficient of Turnover is negative for Guinness Nigeria plc and is statistically not significant while for Nestle Nigeria plc and Cadbury Nigeria plc, it carries a positive sign and is statistically significant at 0.02 percent and 1.0 percent respectively. Fixed assets has a positive coefficient for Guinness Nigeria Plc, Nestle Nigeria plc and Cadbury Nigeria plc. It is also statistically significant at better than 0.1 percent for Guinness. Not statistically significant for Nestle Nigeria plc and Cadbury Nigeria plc. The coefficient of current assets is negative for Guinness Nigeria Plc and Nestle Nigeria Plc and statistically not significant. The situation is not same for Cadbury where the coefficient of Current Assets is positively signed and is statistically significant at 0.03 percent. Share capital has a positively signed coefficient for the three firms and is statistically not significant for Guinness Nigeria Plc. It is however statistically significant for Nestle Nigeria plc and Cadbury Nigeria plc at 0.6 percent and 0.1 percent respectively. The coefficient of manufacturing is positive for Guinness Nigeria Plc, Nestle Nigeria plc and Cadbury Nigeria Plc. Manufacturing is also statistically significant for Guinness Nigeria Plc at 0.0 percent, not statistically significant for Nestle Nigeria Plc and statistically significant for Cadbury at 0.01 percent. Industrial productions shows a positive sign for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc. It is also statistically significant at 0.60 percent, 0.00 percent and 0.11 percent implying that use of appropriate technology facilitates industrial production while the use of obsolete technology mars industrial production in food and beverage firms. This goes in line with the findings of Raja and mahmoud (2013) that the technological environment is most important for manufacturing firms. Adjusted R^2 ,T-statistics and Dubin Watson (DW) statistic are all respectable in the three firms. This shows that the independent variables explain the depend variables and there is no case of spurious regression in the result and that the kind of technology employed by food and beverage firms greatly impacts on their performance.

Test of hypothesis 4

Hypothesis 4 which states that technology has no significant influence on the profitability of Food and Beverage Firms is tested using F-statistics. For Guinness Nigeria Plc, the F-statistic of technology is 60.6091 which is significant at better than 0.1 per cent. This

implies that the null hypothesis is rejected. For Nestle Nigeria Plc, the F-statistic of technology is 299.437 which is significant at better than 0.1 per cent.

This implies that the null hypothesis is rejected. For Cadbury Nigeria Plc, the F-statistic for technology is 209.031 which is significant at better than 0.1 per cent. We therefore reject the null hypothesis and uphold the alternate hypothesis which states that technology has a significant influence on the profitability of food and beverage firms.

Based on the above, objective no 4 which is to assess the influence of technology on the profitability of food and beverage firms is hereby achieved.

5.1.5 Value added by Sales Turnover on Profitability of Food and Beverage Firms

Tables 4.2.1e, 4.2.2e, 4.2.3epresent the regression result of the value added by turnover on sales on the profitability of Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc. The estimated coefficients of the model for the three companies are positively signed and equally statistically significant at better than 0.1 percent. This indicates that at zero per cent of performance of all the independent variables, turnover facilitates performance at 15.5529 for Guinness Nigeria Plc, 11.9486 for Nestle Nigeria Plc and 12.1673 for Cadbury Nigeria Plc. The estimated coefficient of exchange rate carries a negative sign for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc and the t-value is statistically not significant for Guinness Nigeria Plc, Nestle Nigeria plc and Cadbury Nigeria Plc at 0.3 per cent , 0.2 per cent and 0.2 per cent respectively. The regression coefficient of Profitability and Investment for the three companies studied are statistically not significant at various probability values. Considering the coefficients of capacity utilization and industrial production, the t- statistics for Guinness and Cadbury Nigeria Plc is statistically significant at 0.03 percent and 0.04 percent for capacity utilization and 0.6 per cent and a better than 0.1 per cent for industrial production whereas for Nestle Nigeria plc, the t statistics is statistically not significant. This implies that in Guinness Nigeria Plc and Cadbury Nigeria plc, utilized capacity and industrial productions bring about increase in sales. For the regression coefficient of inflation, unemployment and GDP, inflation and GDP are statistically not significantfor Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria plc. However, the reverse is the case for unemployment which is statistically significant at better than 0.1 per cent, 0. 8 per cent and 0.04 percent for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc respectively. The

above result further reveals an R^2 of 0.512660, 0.745321 and 0.702000 for Guinness Nigeria Plc, Nestle Nigeria Plc and Cadbury Nigeria Plc respectively. Value of Durbin Waston is greater than R^2 in all the results which indicate that there is no case of autocorrection in the model.

Test of Hypothesis 5

Hypothesis 5 which states that turnover on sales does not have any significant influence on the profitability of Food and Beverage Firms in Nigeria is tested using F-statistics. For Guinness Nigeria Plc, the F statistic of turnover is 238.437 which is significant at better than 0.1 per cent. This implies that the null hypothesis is rejected. For Nestle Nigeria Plc, the F statistic is 2.19421 and is significant at 0.1 per cent. This implies that the null hypothesis is rejected. For Cadbury Nigeria plc, the F statistic is 12.2497 and is significant at better than 0.1 percent. We therefore accept the alternate hypothesis and conclude that turnover on sales has a significant influence on the profitability of food and beverage firms. On the premise of this result therefore, objective No 5 which is to determine the extent of value added by turnover (sales) on the profitability of Food and beverage firms is hereby achieved

5.1.6 Influence of Environmental Factors on Goal Attainment of Food and Beverage Industry

Table 4.2.4f presents the regression result of the influence of environmental factors on Goal Attainment of Food and Beverage Industry. This revealed salient facts. Goal attainment which is the dependent variable was regressed on supplier environment, competitive environment, socio-cultural environment and political environment. From the result, the coefficient of the constant term is statistically significant at better than 0.1 percent. This implies that all the independent variables explain the dependent variable. The regression coefficient of supplier environment is positive and is not statistically significant at better than 0.1 per cent. The regression coefficient of competitors environment is positive and is statistically significant at better than 0.1 percent. This implies that that activities of competitors in the food and beverage industry impacts on

profitability. The result further reveals a positive regression coefficient for soci-cultural environmentand a statistical significance at 0.3 percent. The coefficient of political environment is positive and is statistically significant at 0.01 per cent which means that political activities in the country has an influence on the profitability of food and beverage firms.

From the result, competitors environment was found to have the strongest influence on the goal attainment of food and beverage firms. This is in concert with the works of Faraz, Ahmad, Peyman and Asghar (2011) which found that scanning competitors environment is the major factor that affects the performance of manufacturing firms. This is followed by socio cultural environment. Political environment was alsofound to have an influence on goal attainment while supplier environment was found not to have an influence on goal attainment of food and beverage firms against aprorai expectation. This shows that to attain organizational goals, food and beverage firms need to be competitive as they operate in a very competitive environment. Environmental scanning of the competitors environment will provide useful information needed by managers to adapt the products and services with market needs.

The value of Adjusted R^2 (0.551) in the result proves that changes in the changes in goal attainment(dependent variable) were explained by the independent variables. The 0.643 value of Durbin Waston (DW) indicate that there is correlation among the variables. The statistically significant positive relationship between goal attainment of food and beverage firms and environmental factors suggest that proper scanning of the competitive, socio-cultural and political environment influence the performance of food and beverage firms. However, this result negates the findings of Farez et al (2011) that scanning of political and soci-cultural environment has no significant influence on performance of firms. This may be as a result of environmental differences that exists in the environments of the two studies.

Test of Hypothesis 6

Hypothesis 6 which states that societal environmental factors have no significant positive influence on goal attainment of Food and Beverage Firms is hereby tested using F-statistics. The regression result of the influence of environmental factors on goal attainment of Food and Beverage firms revealed an F statistic of 7.811 which is

statistically significant at 0.021 percent. Consequent upon this result, we do not accept the null hypothesis. We therefore conclude that societal environmental factors have a significant positive influence on goal attainment of Food and Beverage.

5.2 Industry Analysis: Food and Beverage Industry

Food and Beverage industry is concerned with manufacturing of consumer goods such as food and drinks. The nature of the goods produced by this manufacturing sub sector makes it very relevant in the manufacturing sector and the Nigerian economy as well. This is so because food and drinks are very important for human well being and as such cannot be avoided hence, the viability of the industry as well as high expectation of positive growth. Food and beverage industry is characterized by a high threat of new entrant which makes it very competitive.

The regression result of the influence of environmental scanning on performance of food and beverage industry is presented thus;

5.2.1 Analysis of Taxation and Profitability of Food and Beverage Industry

Table 4.2.4a presents the regression result of the influence of taxation on profitability of food and beverage industry. The coefficient of the constant term is positive and is statistically significant at better than 0.1 per cent. This implies that at zero performance of all the independent variable, profitability will increase by 8.89194. Taxation is positively signed and is statistically significant at 0.05per cent. This indicates that taxation has a significant impact on profitability in food and beverage industry soincrease in taxation in the Nigeria food and beverage industry by the Government reduces the profitability of the companies in the industry. The coefficient of turnover (sales), market share and fixed assets are negatively signed and also not statistically significantat 0.2, 0.9 and 0.3 levels of

probability respectively.This implies that in food and beverage industry, turnover (sales), market share and fixed assets have little or no impact on profitability contrary to aprorai expectation of the industry. This adverse effect may be as a result of the external influences from the environment of food and beverage firms some of which emanate from the activities of the industry stakeholders like the government. Increase in tax by the government to augment revenue can cause increase in production cost and increase in price of food and beverage goods which can have an adverse effect on turnover(sales). This calls for strategic environmental scanning and strategic investment to cushion the effect of taxation, maintain a good market share and also increase in turnover (sales) even when faced by adversarial challenges from the environment.The coefficients of export and balance of payment are positively signed and also statistically significant at 0.2 and 0.1 probability levels respectively. This implies that export activities both at industry and the national level both influence the profitability of food and beverage thus, a need to align their international activities to the strategic factors in their environment.

5.2.2 Analysis of Strategic Investment on the Profitability of Food and beverage Industry

A close observation of Table 4.2.4b reveals the regression result of the influence of strategic investment of food and beverage industry. The equation regresses profitability on investment, share capital, fixed assets, current assets, turnover (sales) and market share. The coefficient of the constant term is positive and is statistically significant at better than 1 per cent. This shows that at zero performance of all the explanatory variables, profitability will increase by 24.0824. The coefficient of investment is positive which means that any increase in investment holding other variables constant will increase profitability by 1. In a very volatile operating environment therefore, food and beverage industry players can achieve a sustainable long term growth for its share holdersthrough series of strategic investments and productivity initiatives .Share capital has a positive coefficient and is statistically significant at 0.9 level of probability. This means that funds raised by food and beverage firms in exchange for shares influence profitability sinceany increase in the share capital of food and beverage firm brings about an increase in their profitability. Fixed assets and current assets also have positive coefficients and are statistically significant at 0.8 and 0.6 probability levels respectively. This implies that the any increase in the assets of food and beverage firms will lead to an increase in their

profitability. The coefficient of turnover (sales) is negative and statistically significant at 0.05 per cent meaning that turnover has a negative influence on profitability in food and beverage firms. This is however is against management expectation as increase in turnover (sales) should bring about increase in profitability. Market share has a positive coefficient and is statistically significant at 0.3 per cent. This result reflects the competitive nature of food and beverage industry characterized by a high degree of threat of new entrants and consequently a high degree of rivalry among industry players.By monitoring and understanding the socio-cultural environment of the industry through strategic environmental scanning, Food and beverage industry players can rightly adhere to consumer wants and needs to avoid losing patronage to other substitute and thus gain a large market share which impacts positively on their profitability.

5.2.3 Analysis of Exchange Rate and Profitability of Food and Beverage Industry

Table 4.2.4c presents the regression result of the influence of exchange rate on profitability of food and beverage industry. The equation regresses profitability on exchange rate, industrial production, manufacturing, turnover (sales) inflation, market share, share capital, unemployment, import at a particular time, export at a particular time, balance of payment and Gross domestic product. The coefficient of the constant term is positive and is statistically significant at 0.00 per cent. This means that at zero performance of all the independent variables, profitability will increase by 4. The coefficient of exchange rate is positive and is statistically significant at 0.1 per cent . This shows that exchange rate has a significant impact on the profitability of food and beverage industry. So any change in exchange rate can either have a positive or adverse effect on profitability. Fluctuations in exchange rate will cause instability in the purchasing power of consumers hence, a negative impact on investment in import of manufacturing inputs. The result further reveals industrial production caring a negative sign and is statistically significant at 0.9 per cent meaning that industrial production has adverse effect on profitability. Thisis against aprorai expectation. One reason an increase in industrial production during the study period did not yeiled an increase in profitability may be explained by improper fitness of production objectives with the fluctuations in exchange rate There need to be constant monitoring of the fluctuations of currency to prevent any adverse effect on industrial production. The coefficients of manufacturing, turnover(sales), unemployment, export at a particular time has a positive sign and is

statistically significant at 0.7 percent, 0.004, 0.2 and 0.1 respectively. This implies that manufacturing,turnover (sales) unemployment and export at a particular time all influence profitability in food and beverage industry. In contrast to this, inflation, share capital and import at a particular time all have positively signed coefficient but not statistically significant at various levels of probability. This implies that these variables have little or no influence on the profitability of food and beverage firms in Nigeria against aprorai expectations. The coefficients of market share, balance of payment and gross domestic product are all positively signed and fairly significant at 0.01per cent, 0.3 per cent and 0.12 per cent respectively meaning that they have a little influence on the profitability of food and beverage firms. The result reveals an R squared of 0.95443 implying that the model explains about 95 per cent of the variations in the profitability of food and beverage firms. The model is therefore respectable enough to guide policy decisions.

5.2.4 Analysis of Technology and Profitability of Food and Beverage Industry.

Table 4.2.4d presents the regression result of influence of technology on profitability of food and beverage industry. The model regresses profitability on technology, investment, turnover (sales), fixed assets, current assets, share capital, manufacturing and industrial production. The result reveals an R squared of 0.964812 which implies that about 96 per cent of the variations in profitability is explained by the independent variables. The estimated coefficient of the constant term is positively signed and is statistically significant at 0.5 per cent. This means that at zero performance of all the independent variables, profitability will increase by 2. The estimated coefficient of technology and investment carry a positive sign and is statistically significant at 0.3 and 0.02 per cent respectively. By this result, investment in technology in the food and beverage industry facilitates profitability. Emergence of new technologies in the food and beverage industry can have an impact on the overall business and production processes. This is further heightened by the high intensity of rivalry existing among the players in the industry thus, a constant monitoring of the technological environment through environmental scanning can boost technological competence needed by food to create competitive advantage the food and beverage i in Turnover (sales) carries a negatively signed estimated coefficient and is statistically fairly significant at 0.03 per cent implying that increase in turnover (sales) may bring about a decrease in profitability. This is however against management

expectation as increase in turnover (sales) should lead to an increase in profitability. Fixed assets carries a negatively signed coefficient and is statistically significant at 0.4 per cent. This means that fixed has an adverse effect on profitability of food and beverage firms. Current assets and share capital both carry negatively signed coefficient and are statistically not significant at different probability levels. Manufacturing carries a positive coefficient and is statistically not significant at 0.01 per cent. Industrial production is seen to have a positive influence on profitability of food and beverage industry as revealed by the positive estimated coefficient and a statistical significant t statistics at 0.1 per cent probability level.

5.2.5 Analysis of Value added by Sales Turnover on Profitability of Food and Beverage Industry

Table 4.2.4e presents the regression result of the value added by sales turnover on profitability of food and beverage industry. The equation regresses profitability on turnover (sales), investment, capacity utilization, industrial production, inflation, unemployment and Gross Domestic Product. The coefficient of the constant term is positive and is statistically significant at better than 0.1 per cent. This implies that profitability of food and beverage firms will increase by 13 at zero performance of all the explanatory variables. Turnover (sales) has a negative coefficient and is statistically significant at 0.05 per cent which means that turnover(sales) has an adverse effect on profitability in the food and beverage industry. This is against management expectation as increase in turnover should bring about an increase in profitability in a normal situation. The coefficient of investment carries a positive sign and is statistically significant at 0.3 per cent. This implies that investments made in the food and beverage industry bring about an increase in profitability. Capacity utilization carries a positive coefficient and is statistically significant at 0.1 per cent. This means that any increase in the capacity utilization will bring about an increase in profitability. The coefficient of Industrial production is positive and statistically significant at 0.001 which means that as industrial production in the food and beverage industry increases, profitability also increases too. Inflation has a negative coefficient is fairly significant at 0.01 per cent which implies that inflation has an adverse effect on the profitability of food and beverage firms. Gross Domestic Product has a positive coefficient and is fairly significant at 0.02 per cent implying that GDP has a functional relationship with profitability. The result further

reveals an R-squared of 0.951226 which means that about 95 per cent of the variations in profitability is explained by the independent variables and this is a goof fit for the model.

CHAPTER SIX

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

6.1 Summary of Findings

This study centers on examining how food and beverage organizations can align their organization to their environment through environmental scanning. It examines the many variables within the environment of food and beverage firms so as to identify the environment that has the most strategic impact on their performance. To achieve this, organizational performance was evaluated based on its capabilities which canemanate from technological, economic, political, socio-cultural, competitor and supplier environments. The variables within each ofthese environments were captured in the operational models developed to examine their influence on the performance of food and beverage firms. Performance was measured by both financial and non financial measures. Based on the empirical results, the findings of the study are summarized as follows:

(i) The findings from the regression result of taxation equation which regressed profitability against taxation as shown in tables 4.2.1a, 4.2.2b, and 4.2.3c revealed a positive correlation between taxation and profitability. Import at a particular time, export at a particular time are variables strongly related to profitability as they are significant for the three firms. Fixed asset and Balance of payment are the least significant variables influencing profitability as it is significant only in Nestle Nigeria Plc. Market share, Turnover andInvestment are fairly significant as they were significant only two of the companies studied.

(ii) The regression result of strategic investment which regressed investment on profitability revealed a positive correlation coefficient for the three companies studied.

This implies that the dependent variable is positively related to all the independent variables. Investment, share capital and market share are the most significant variables as they are statistically significant for the three companies. While fixed assets is found to be fairly significant as it is statistically significant only in Cadbury Nigeria Plc and Nestle Nigeria, Current assets and Turnover were found to be the least significant as they were not statistically significant in two of the companies studied.

(iii) The third model revealed a positive relationship between exchange rate and profitability as profitability is statistically significant for Guinness and Cadbury but not significant for nestle. This implies that for Nestle, profitability is positively related to exchange rate but is not statistically significant. Manufacturing and share capital were found to be the most significant factors that explain how exchange rate influences profit in the companies studied. This shows that exchange rate affects the manufacturing activities of food and beverage firms. Inflation and turnover were found to be fairly significant as they are statistically significant in two companies studied. GDP,export at a particular time,market share,industrial production and unemployment were all found to have the least influence on exchange rate. Thus, unstable exchange rates bring a high degree of uncertainty to the business environment. The result reveals that unstable exchange rate can herald a detoriating balance of payments which will create difficult trading conditions for domestic businesses. Furthermore, unstable exchange rates can heighten inflation having a ripple effect on turnover and employment.

(iv) The findingsfrom the fourth model show that technology has a significant relationship with profitability in the food and beverage firms. This means that technology leads to increased performance in Food and Beverage firms. So improvement in technology will bring about introduction of new products, changes in the methods and organization of production, changes in the quality of resources and products and new ways of distribution and storage. All these lead to improved performance. Investment, industrial production, share capital and manufacturing were found to be very important in explaining the profitability of food and beverage firms through the application of technology.

(v) From the regression result of the fifth model, the positive regression coefficients for the threecompanies werefound to be statistically significant and positively signed. This shows that the independent variables explain the dependent variable. Profitability was

found to be statistically not significant for the three firms. This implies that a change in turnover does not lead to a change in profit. This is against management expectation. Unemployment and capacity utilization were found to be statistically significant in two out of the three firms studied.

(vi) From the sixth model, it was found that competitor environment has the most important influence on the goal attainment of food and beverage firms. this is in line with the articulations of classical scholars like Aguilar(1997), Jain 1984, Ghoshal & Kim (1986), Lester & Waters (1989) who suggest that managers who operate in an intense dynamic environment tend to do more scanning focused on market related environmental sectors with information about the customers, competitors, suppliers being the most important.

6.2 Conclusion

From the findings of this study,taxation, exchange rates, and technology were found to strongly influence the investment activities of food and beverage firms. These have impact on performance vis avis profit, sales turnover, market share acquisition and share capital of these firms. It also highlights the importance of strategic environmental scanning of the technological environment ,economic environment and competitor in the performance of Food and Beverage firms.This negates the findings of Sawyer (1993) who found the political environment to be more important due to its uncertainty. The reason for this may be the difference in the years of study for this study and his study and differences in the conditions of environmental variables. Results further revealed that activities of competitors, suppliers, customer perception and lifestyle, as wellas the political situation in the country are all important strategic factors which must be monitored by food and beverage firms through environmental scanning. The different environments have implications for the food and beverage firms as thus,

Technology: The emergence of new technologies can impact organizations' overall business and production processes. It is useful, therefore, to monitor changes in technologies, particularly those that influence business efficiencies, changes in production, existing infrastructures (e.g., energy, transportation, and communication), and the rise of new products or services

Industry/Market: Because the industry/market environment generally seems to be the most significant, it is useful to examine the structure of the industry and identify the key competition in the industry. Understanding the role of the competitors in the market and their relationship with each other, their customers, and their suppliers will provide useful information on trends and potential problems for competing organizations. Environmental scanning as a strategic activity will aid proper understanding

Economic: as the results revealed economic variables like exchange rates ,rates of unemployment and inflation can help or hinder growth if the organization is caught off-guard. Economic information can help the organization prepare for changes in these and other related issues

Socio cultural: Demographic shifts in the population may cause an increase or decrease in demand for food and beverage products. Demographic information should be monitored for changes in variables such as size and distribution of population, age, education, and income. Additional, qualitative indicators (e.g., consumer attitudes) are also important and should be monitored.

Political: Politics in Nigeria can affect food and beverage firms in ways that may be direct or indirect. Laws regarding minimum wage and business taxes can have direct bearing on hiring practices within an organization. The findings made in this study have clearly shown that profitability parameters are linked with strategic environmental scanning. It is very important therefore that any fall in profitability of the food and beverage firms should prompt managers to rethink their alignment of organizational strategies with the environment. It is useful for an organization to have a clear understanding of the political climate in which it operates so that it can be prepared for sudden changes that result from elections or changes in existing policies or laws.

6.3 Recommendations

(i) Nigerian Government should endeavor to streamline and simplify the tax system so as to reduce the burden which high taxation places on food and beverage firms. This would be beneficial to not only the food and beverage firms but also the Nigerian economy as the manufacturing sector is an engine of economic development in a country.

(ii) Securing a high market share requires a long term corporate commitment and strategic investment. In the light of the dynamic business environment in which

Food and Beverage firms operate, strategic investments should be made to align with the environmental dictates so as to yield expected returns. Managers of Food and Beverage firms should endeavour to align their investment strategies to the environment so as to boost competitiveness and improved performance.

(iii) Government should stimulate export diversification in the area of agriculture so as to help reduce exchange rate fluctuations.

(iv) Given the ever changing nature of consumers tastes and preferences, food and Beverage firms need to continually scan their environment so as to keep abreast with technological improvements so as to match these changes and remain competitive in the market.Improvement in technology is on the increase now due to globalization. Food and beverage firms need to take advantage of it by using improved technology to promote their products .Products should be produced bearing in mind the cultural tastes of the different multicultural groups in Nigeria. Through environmental scanning, they will be able to understand what tastes and flavors' fascinate Nigerians.

(v) For food and Beverage firms to achieve increased sales turnover , they need to continually through strategic environmental scanning understand the changes that take place in the market and competitor environment.

(vi) The government should endeavor to create an enabling environment that would be trulyconducive for business organisations. Provision and maintenance of all infrastructural facilities can help reduce the upheavals in the operating environment of the food and beverage firms,

6.4 Suggestions for Further Research

In view of the vast nature of environmental scanning in relation to Nigerian contemporary environment, this study focused on strategic environmental scanning and the performance of selected food and beverage firms in Nigeria with particular reference to selected variables for period 1990 – 2015. The application of other tools of analysis may provide different result from ours in this study. Further research therefore becomes eminent as it could be extended to specific other variables in the service industry, travel industry and the Nigerian macro and business economy. These we suggest should form the basis of further investigations.

6.5 Contributions to Knowledge

This study has added to the existingknowledge on strategic environmental scanning as it has uncovered the extent to which the performance of Nigerian food and beverage industry can be affected by changes in their environment by investigating the variables within their external environment using appropriate econometric tools.

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Appendix I

Nnamdi Azikiwe University, Awka

Faculty of Management Sciences

Department of Business Administration

Dear respondent,

QUESTIONNAIRE

This questionnaire is designed to obtain information about the influence of societal environmental factors on your organization's goal attainment. The information required is purely for academic purposes and your responses to the questions will be treated under strict confidentiality.

Thank you for your co-operation

Yours sincerely,

Enemuo Ujunwa C.

APPENDIX II

Please kindly read the information below carefully and tick (✓) as appropriate

Key:

SA : Strongly Agreed
A : Agreed
SD : Strongly Disagreed
D : Disagreed
NI : No Idea

My organization has achieved some strategic goals pursued in the following areas:

S/N	**Item Description**	**SA**	**A**	**D**	**SD**	**NI**
1	Employee commitment					
2	Job Satisfaction					
3	Job Security					
4	Reputation of the company					
5	Corporate Social Responsibility					
6	Wealth creation					
7	Capacity Building					
8	Manpower development					
9	Corporate culture such as shared beliefs, expectations and values					
10	Employee welfare					
11	Employee Diversity (employee background)					

The attainment of the above indicated goals in my organization is mostly influenced by the following societal factors:

S/N	**Item Description**	**SA**	**A**	**D**	**SD**	**NI**
	Supplier Environment					
1	Wage/price controls					
2	Energy availability and cost					
3	Raw material price changes					
	Competitor Environment					
5	Advertising campaigns of competitor					
6	Strategies of the competitor					
7	Present and new products of competitors					
	Political-Legal Environment					
8	Tax legislations					
9	Stability of government					
10	Environment protection laws					
11	Attitudes towards foreign companies					
12	Security challenges					

13	Political situation					
	Socio-cultural Environment					
14	Unexpected shifts in consumer tastes					
15	Age distribution of population					
16	Level of education					
17	Health care					
18	Growth rate of population					
19	Customer perception					
20	Customer lifestyle					

APPENDIX III

Guinness Nigeria Plc

Taxation Equation

Dependent Variable: PRT

Method: Ordinary Least Square

Sample: 1990-2015

No of observation 26

Variable	Estimated Coefficient	Standard error	t-statistic	p-value
C	33.7875	63.4163	0.532788	[0.599]
ΔL TAX	-290529	5.18621	2.560195	[0.580]
ΔL TNOR	0.017767	1.63076	0.010895	[0.99]
ΔLMKTS	0.054903	0.947989	-2.057916	[0.954]
ΔLFASST	1.41947	3.19415	0.444397	[0.660]
ΔLINV	7.61360	3.40986	2.232282	[0.034]
ΔL EXP t-1	4.41250	1.8925	2.41281	[0.002]
ΔL IMP t-1	5.28137	2.6721	2.5263	[0.040]
ΔL BOP			1.9214	[0.030]

R2 Statistic= 2.19994, Prob (F- Statistics) = [0.85]

DW = 1.37131

Sources: Extratct from Gret L Output (2016)

APPENDIX IV

Nestle Nigeria Plc
Taxation equation
Dependent Variable: PRT
Method: Ordinary Least Square
Sample: 1990-2015
No of observation 26

Variable	Estimated Coefficient	Standard error	t-statistic	p-value
C	-13.1844	58.1444	0.570724	[0.573]
ΔL TAX	0.49003	5.29116	0.092614	[.927]
ΔL TNOR	-1.71091	1.56055	-2.09635	[.283]
ΔLMKTS	-1.08163	0.854204	-1.26625	[.217]
ΔLFASST	5.33897	2.74411	3.94561	[.063]
ΔLINV	-0.382425	0.384111	-0.995612	[.329]
ΔL EXP t-1	6.41360	3.28425	-2.814214	[.612]
ΔL IMP t-1	7.32765	4.31227	-2.13416	[.428]
ΔL BOP	4.43656	3.338123	-2.53142	[0.007]

R^2 Statistic= 0.193303,
F Statistic = 1.24604, Prob (F- Statistics) = [0.317]
DW = 1.22296
Sources: Extratct from Gret L Output (2016)

APPENDIX V

Cadbury Nigeria Plc
Taxation equation
Dependent Variable: PRT
Method: Ordinary Least Square
Sample: 1990-2015
No of observation 26

Variable	Estimated Coefficient	Standard error	t-statistic	p-value
C	7.97204	0.443303	17.9833	[.000]
ΔL TAX	0.029751	0.33018	0.901059	[.367]
ΔL TNOR	0.77019	0.110060	7.05089	[.000]
ΔLMKTS	0.039368	0.19346	2.03498	[.052]
ΔLFASST	0.013880	0.23833	0.582385	[.565]
ΔLINV	0.824120	0.045721	2.62461	[.672]
ΔL EXP t-1	1.892411	0.143642	-2.1123	[0.00]
ΔL IMP t-1	0.672518	0.165436	-2.5711	[0.12]
ΔL BOP	0.865111	0.111991	1.6211	[0.111]

R^2 Statistic= 0.694514
F Statistic = 15.3460 , Prob (F- Statistics) = [0.00]
DW = 0.377058
Sources: Extratct from Gret L Output (2016)

APPENDIX VI

Guinness Nigeria Plc
Strategic Investment Equation
Method of estimation = Ordinary Least squares
Dependent variable : INV
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 10.6159 Std. dev. Of dep, var. = 2.21737
Sum of squared residuals 15.2738 Variance of residuals = 565696
Std error of regression = .152128 R-Squared = .999791
Adjusted R-Squared = .984945 LM het. Test = .083897[.772]
Durbin-Waston = 2.15973 [.350,907] Jarque-Bera test = 14,26060[.001]
Ramey's RESET2 = .293879[.592] F(zero slopes) = 60.6091[.000]
Schwarz B.I.C = 42.2368 Log likelihood = .33.57225

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	3.91534	3.60048	2.3619	[.183]
ΔL INV	-1.43381	2.76488	-2.518581	[.608]
ΔL SHCAP	.3852989	1.75352	2.19728	[.037]
ΔL FASST	.013046	.016981	-.868282	[.449]
ΔL CASST	.660997	.119042	4.55263	[000]
Δ TNOR	-347878	.18792	-.98722	[.116]
Δ MKTSH	.256671	.07672	2.25831	[.221]

Source : Gret – L package

APPENDIX VII

Nestle Nigeria Plc
Strategic Investment Equation
Method of estimation = Ordinary Least squares
Dependent variable : INV
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 14.1849 Std. dev. Of dep, var. = 1.69819
Sum of squared residuals 9.18888 Variance of residuals =
Std error of regression = .606263 R-Squared = 9.348327
Adjusted R-Squared = .872548 LM het. Test = 2.65808[.103]
Durbin-Waston = 2.15973 [.350,907] Jarque-Bera test = 14,26060[.001]
Ramey's RESET2 = 3.20454[.086] F(zero slopes) = 36.3714[.000]
Schwarz B.I.C = 37.5722 Log likelihood = 25.4422

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	244.098	497.122	1.491022	[0.627]
ΔL PRT	-268.351	791.836	4.228897	[.737]
ΔL SHCAP	-391.948	1103.46	7.355200	[.725]
ΔL FASST	-287.030	121.193	-2.36837	[.025]
ΔL CASST	-13993E-02	.011201	.116949	[.908]
Δ TNOR	.228917	.0231185	1.99872	[.778]
Δ MKTSH	.48792	0.412358	2.1161381	[.638]

Source : Gret – L package

APPENDIX VIII

Cadbury Nigeria Plc
Strategic Investment Equation
Method of estimation = Ordinary Leastsquares
Dependent variable : INV
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 1.95346
Sum of squared residuals 2.60787 Variance of residuals = .096588
Std error of regression = .310786 R-Squared = 9.977955
Adjusted R-Squared = .974689
Durbin-Waston = 1.45978[.006'227] Jarque-Bera test = .503095[.778]
Ramey's RESET2 = 199374[.659] F(zero slopes) = 299.437[.000]
Log likelihood = 5.29079

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	33.7875	63.4163	.532788	[.599]
ΔL PRT	.17767	1.63076	2.010895	[.991]
ΔL SHCAP	.-2.90529	5.18621	-560195	[.580]
ΔL FASST	.054903	.947989	2.057916	[.991]
ΔL CASST	1.41947	3.19415	1.66397	[.660]
Δ TNOR	0.28722	2.38711	2.92134	[.1-4]
Δ MKTSH	0.37789	1.99861	1.32413	[.0100]

Source : Gret – L package

APPENDIX IX

Guinness Nigeria Plc
Exchange Rate Equation
Method Of Estimation = Ordinary Least Squares
Dependent variable : EXCHR Current Sample : 1990-2015
Number of Observations : 26 Mean of dep. Var. = 15.0886
Std. dev. Of dep, var. = 1.95346 Sum of squared residuals 2.60797
Variance of residuals = .096588 Std error of regression = .310786
R-Squared = .78485 Adjusted R-Squared = .8857289
LM het. Test = .779561[.377]
Durbin-Waston = 1.45978[.006,227] Jarque-Bera test = .503095[.778]
Ramey's RESET2 = .199374[.000] F(zero slopes) = 299.437[.000]
Schwarz B.I.C = 13.9551 Log likelihood = -5.29079

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	14.1654	.571100	4.5506	[000]
ΔL PRT	.755756	.061733	-2.52305	[.018]
ΔL INDP	.782174	.23864	2.2142	[.000]
ΔL MANU	.530516	.048762	3.77817	[.000]
ΔL TNOR	.812749	0.50016	.254903	[.901]
ΔL INFL	.642831	0.32262	-2.4181	[.700]
ΔL MKTSH	.88755	.26715	-1.9972	[.184]
ΔL SCAP	.48667	0.28143	2.32181	[.000]
ΔL UNEM	.734215	0.27232	2.989766	[0.051]
ΔL IMPt-1	.643318	0.36311	2.511281	[0.211]

ΔL EXP t-1	.82616	0.28142	1.992364	[0.601]
ΔLBOP	.582162	0.27281	2.143171	[0.102]
ΔL GDP	.793295	0.38156	1.821471	[0.001]

Source : Gret – L package

APPENDIX X

Nestle Nigeria Plc

Exchange Rate Equation

Method of estimation = Ordinary Least squares
Dependent variable : EXCHR Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 13.7242 Std. dev. Of dep, var. = 2.28953
Sum of squared residuals 48.4249 Variance of residuals = 1.86250
Std error of regression = 1.36473 R-Squared = .9025060
Adjusted R-Squared = .611783 LM het. Test = .188187[.170]
Durbin-Waston = 2.13692 Jarque-Bera test = .229.878[000]
Ramey's RESET2 = .852349[.365] F(zero slopes) = 12.2497[.000]
Schwarz B.I.C = 62.4317 Log likelihood = -52.0345

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	24.0821	5.71094	4.21683	[000]
ΔL PRT	.64435	.258218	-.171697	[.865]
ΔL INDP	.628694	.363010	1.71697	[.865]
ΔL MANU	.639169	.302385	2.129534	[.898]
ΔL TNOR	.419814	.235599	-508551	[.615]
ΔL INFL	-5.57325	1.27755	-2.01420	[0.54]
ΔL MKTSH	.546684	1.441361	2.34548	[0.411]

ΔL SCAP	.681459	.384020	2.00831	[0.521]
ΔL UNEM	.52448	.200121	1.98991	[0.15]
ΔL IMPt-1	.732216	.375025	2.01121	[0.0]
ΔL EXP t-1	.654782	1.324121	-2.51612	[0.112]
ΔLBOP	.856434	1.38466	1.99871	[0.118]
ΔL GDP	.681122	.43447	1.81751	[0.000]

Source : Gret – L packag

APPENDIX XI

Cadbury Nigeria Plc

Exchange rate equation

Method of estimation = Ordinary Least squares
Dependent variable : EXCHR Current Sample : 1990-2015
Number of Observations : 26
Std. dev. Of dep, var. = 1.64374
Sum of squared residuals 13.3457 Variance of residuals = .513296
Std error of regression = .716447 R-Squared = .840664
Adjusted R-Squared = .810023 LM het. Test = 3.11649[.078]
Durbin-Waston = 1.09514[.000,045] Jarque-Bera test = 2.60401[.272]
Ramey's RESET2 = 8.02300[.009] F(zero slopes) = 27.4355[.000]
Schwarz B.I.C = 41.8106 Log likelihood = -31.4134

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	14.1654	3.338629	4.30066	[000]
ΔL PRT	-582913	.283081	-2.05918	[.050]
ΔL INDP	.645296	.048714	1.929842	[.361]
ΔL MANU	.83083E-02	.424216R-02	-2.6177434	[.542]
ΔL TNOR	4.336741	.124438	-2.52025	[.141]
ΔL INFL	.861513	.184599	4.66695	[.000]
ΔL MKTSH	.641324	.241782	1.998562	[.006]

ΔL SCAP	.487582	.19678	-2.781436	[.0314]
ΔL UNEM	.556856	.21342	1.99914	[0.18]
ΔL IMPt-1	.58126	.32413	2.5527	[0.00]
ΔL EXP t-1	.76741	.412557	1.89459	[0.14]
ΔLBOP	.81252	.3185410	2.64481	[0.42]
ΔL GDP	-961414	.422108	2.115671	[0.603]

Source : Gret – L package

APPENDIX XII

Guinness Nigeria Plc
Technological Changes Equation
Method of estimation = Ordinary Least squares
Dependent variable : PRT Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 10.6159 Std. dev. Of dep, var. = 2.21737
Sum of squared residuals 15.2738 Variance of residuals = 565696
Std error of regression = .152128 R-Squared = .978466
Durbin-Waston = 2.15973[.350,907] Jarque-Bera test = 14.26060[.001]
Ramey's RESET2 = .293879 F(zero slopes) = 60. 6091[.000]
Schwarz B.I.C = 42.2368 Log likelihood = 33.5725

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	6.91534	3.60048	1.3619	[183]
ΔLTECH	-743381	2.76488	-2.518581	[.608]
ΔL INV	.585298	1.75352	3.19728	[.037]
ΔL TNOR	-613046	.16981	-.768282	[.449]
ΔL FASST	.660997	.119042	4.44262	[.000]
ΔL CASST	-3.47878	.18792	-.198772	[.116]
ΔL SHCAP	.256671	.07672	1.25831	[.221]
ΔL MANU	.465135	.128153	2.94432	[011]

ΔL INDP	.8123481	2.01382	2.01833	[0.60]

Source : Gret – L package

APPENDIX XIII

Nestle Nigeria Plc

Technology Equation

Method of estimation = Ordinary Least squares

Dependent variable : PRT Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 11.1849 Std. dev. Of dep, var. = 1.69819
Sum of squared residuals 9.18888 Variance of residuals =
Std error of regression = .606263 R-Squared = .8947216
Adjusted R-Squared = .872548 LM het. Test = 2.65808[.103]
Durbin-Waston = 2.18375[.208,973] Jarque-Bera test = .1.15252[.562]
Ramey's RESET2 = 3.20454[.086] F(zero slopes) = 299.437[.000]
Schwarz B.I.C = 37.5722 Log likelihood = -25.4422

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	244.098	4971122	1.491011	[0.627]
ΔLTECH	868.357	.791836	2.338897	[.737]
ΔL INV	-391.948	1.10346	2.355200	[.725]
ΔL TNOR	-287.030	.12193	-2.36837	[.025]

ΔL FASST	.13992E02	0.11201	.116949	[.908]
ΔL CASST	.528917	0.231185.	1.99872	[.778]
ΔL SHCAP	.687928	0.412358	2.1161381	[.6387]
ΔL MANU	0.0638401	0.2211841	.245538	[.003]
ΔL INDP	7.647302	0.231176	2.227241	[0.004]

Source : Gret – L package

APPENDIX XIV

Cadbury Nigeria Plc
Technology Equation
Method of estimation = Ordinary Least squares
Dependent variable : PRT Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 11.1849 Std. dev. Of dep, var. = 1.95346
Sum of squared residuals 2.60787 Variance of residuals = 0.96588
Std error of regression = .310786 R-Squared = .977955
Adjusted R-Squared = .974689 LM het. Test = .779561[.377]
Durbin-Waston = 1.45978[.009,277] Jarque-Bera test = .503095[.778]
Ramey's RESET2 = 199374[.659] F(zero slopes) = 209.031[.000]
Schwarz B.I.C = 37.5722 Log likelihood = 5.29079

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	33.7875	03.4163	.532788	[0.599]
ΔLTECH	-6.90529	2.18621	-.560195	[.580]
ΔL INV	.7767	1.633076	2.010895	[.991]
ΔL TNOR	0.054903	.447989	2.057916	[.954]
ΔL FASST	3.41947	0.19415	1.644397	[.660]
ΔL CASST	6.1360	3.40986	2.23282	[.034]

ΔL SHCAP	6.28722	2.38711	2.92134	[.104]
ΔL MANU	5.37789	1.99861	1.32413	[.0100]
ΔL INDP	7.32711	2.89242	2.046321	[0.11]

Source : Gret – L package

APPENDIX XV

Guinness Nigeria Plc
Turnover Equation
Method of estimation = Ordinary Least squares
Dependent variable : TNOR
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 11.1657 Std. dev. Of dep, var. = 1.03677
Sum of squared residuals 17.2865 Variance of residuals = .596087
R-Squared = .596087
Adjusted R-Squared = .845441 LM het. Test = .1.03035[.310]
Durbin-Waston = 1.217151 [.321] Jarque-Bera test = 2.17151[.321]
Ramey's RESET2 = .7.95839[.009] F(zero slopes) = 238.437[.000]
Schwarz B.I.C = 45.5604 Log likelihood = .36.7445

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	15.5529	3.98060	3.90718	[001]
ΔL EXCHR	-179243	.171230	-1.04680	[.304]
ΔL PRT	-014780	.82630e02	-1.78871	[.084]
ΔL INV	.289034	.181993	1.588161	[.123]
ΔL CAPU	-1.69249	.745011	-227177	[.031]
Δ LINDP	.48792	.041235	2.116138	[.638]

Δ LINFL	.228917	0.231185	1.99872	[.7718]
ΔLUNEM	-346728	0.52146	2.66731	[.000]
ΔLGDP	294261	0.332464	1.99344	[.616]

Source : Gret – L package

APPENDIX XVI

Nestle Nigeria Plc

Turnover Equation

Method of estimation = Ordinary Least squares
Dependent variable : TNOR
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 11.4088 Std. dev. Of dep, var. = .645272
Sum of squared residuals 9.74113 Variance of residuals = .600652
R-Squared = .745321
Adjusted R-Squared = .744319 LM het. Test = .95263E-03[.975]
Durbin-Waston = 1.85591 [.100.665]] Jarque-Bera test = 93.6968[.000]
Ramey's RESET2 = .444827[.511] F(zero slopes) = 2.19421 [.000]
Schwarz B.I.C = 35.0403 Log likelihood = .26.3760

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	11.9486	1.60526	7.44336	[.000]
ΔL EXCHR	-119611	.092145	-1028968	[.208]
ΔL PRT	.52447	.219705	.237817	[.813]

ΔL INV	.01449	.038174	.377724	[.709]
ΔL CAPU	.182497	.092997	1.96240	[.060]
Δ LINDP	.0411821	.318604	1.61330	[.000]
Δ LINFL	.0812322	.046412	1.18920	[0.10]
ΔLUNEM	.0812322	.063141	-2.34350	[.818]
ΔLGDP	0.0431631	.046824	1.181176	[.005]

Source : Gret – L package

APPENDIX XVII

Cadbury Nigeria Plc

Turnover Equation

Method of estimation = Ordinary Least squares

Dependent variable : TNOR
Current Sample : 1990-2015
Number of Observations : 26
Mean of dep. Var. = 13.7242 Std. dev. Of dep, var. = 13.7242
Sum of squared residuals 48.4249 Variance of residuals = .1.36473
R-Squared = .702000
Adjusted R-Squared = .644613 LM het. Test = .1.88187[.170]
Durbin-Waston = 1.217151 [.321] Jarque-Bera test = 229.878[.000]
Ramey's RESET2 = .852349[..365] F(zero slopes) 12.2497 = [.000]

Schwarz B.I.C = 62.4317 Log likelihood = 52.0345

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	12.1673	1.63992	7.41946	[.000]

ΔL EXCHR	-149544	.105400	1.41882	[.167]
ΔL PRT	.671002	.219790	.305293	[.762]
ΔL INV	.013292	.037992	.0349840	[.729]
ΔL CAPU	.194749	094557	2.05959	[.049]
Δ LINDP	.284728	.024118	2.11318	[056]
Δ LINFL	.73358	.216470	1.93426	[.031]
ΔLUNEM	.185658	.0718510	2.359651	[.042]
ΔLGDP	.162425	.0314620	.416182	[.004]

Source : Gret – L package

APPENDIX XVI11

Food and Beverage Industry

Taxation Equation(Equation 1)

Dependent variable : PRT
Current Sample : 1990-2015
Number of Observations : 25
Mean of dep. Var. = 11.41611 Std. dev. Of dep, var. = 11.1849
Sum of squared residuals 9.18888 Variance of residuals = .435624
Std error of regression = 501864 R-Squared = .9.972341
Adjusted R-Squared = ..9423172 LM het. Test = 2.56725[.101]
Durbin-Waston = 2.79385 [.209973] Jarque-Bera test = 1.11157[.661]
Ramey's RESET2 = 3.20454[.086] F(zero slopes) = 36.3714[.000]
Schwarz B.I.C = 37.5722 Log likelihood = -25.442

Variable	Estimated Coefficient	Standard error	t-statistic	p-value
C	8.89194	4.68171	5.14845	[000]
ΔL TAX	.360377	.477672	2.13134	[.053]
ΔL TNOR	-135004	.113370	-1.491992	[.241]

ΔLMKTS	-325429e-04	.590173E-02	-.092164	[.942]
ΔLFASST	-121732	.30050	-1.41017	[.331]
ΔLINV	.178658	.366165	.0961856	[.342]
ΔL EXP t-1	.085923	.186345	2.51628	[.204]
ΔL IMP t-1	061381	.034436	1.0062	[0.44]
ΔL BOP	05213	0.74316	-2.9125	[0.01]

Sources: Extract from Gret L Output (2016)

APPENDIX XIX

Strategic Investment Equation (Equation 2)

Food and Beverage Industry

Method of estimation = Ordinary Least squares

Dependent variable : PRT
Current Sample : 1990-2015
Number of Observations : 25
Mean of dep. Var. = 13.7242 Std. dev. Of dep, var. = 2.21737
Sum of squared residuals 42.8134 Variance of residuals = 1.1756
Std error of regression = 1.36473 R-Squared = .9431110
Adjusted R-Squared = .744322 LM het. Test = .083897[.772]
Durbin-Waston = 2.13692 [.243,935]Jarque-Bera test = 119.781[.000]
F(zero slopes) = 12.497[.000]
Schwarz B.I.C = 62.4317 Log likelihood = .52.0345

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	24.0824	5.71094	4.14614	[.000]

ΔL PRT	.84436	2.1582192	-.291696	[.865]
ΔL SHCAP	.6328695	1.263040	2.94691	[.781]
ΔL FASST	.739160	.302385	2.319135	[.898]
ΔL CASST	.519845	2.235599	-608554	[.615]
Δ TNOR	-6.57316	1.87755	-2.64426	[.045]
Δ MKTSH	.846915	1.65474	2.54544	[.321]

Source : Gret – L package

APPENDIX XX

Exchange Rate Equation (Equation 3)

Food and Beverage Industry

Method of estimation = Ordinary Least Squares

Dependent variable : PRT
Number of Observations : 25
Std. dev. Of dep, var. = 2.643124
Variance of residuals = .096588
R-Squared = 0.95443
Log likelihood -9.067747
Durbin-Waston = 1.669612
F(zero slopes) = 0.==5,19)
Schwarz B.I.C = 37.44875

Current Sample : 1990-2015
Mean of dep. Var. =12.26626
Sum of squared residuals 3.023510
std. error of Regression 0.398914
Adjusted R-Squared = .8352281

Log likelihood = -39.32259

Variable	Estimated Coefficient	Standard error	t- statistic	p-value

ΔC	3.83788	3.18006	3.2523	[004]
ΔL EXCHR	0.672313	2.703943	6.4700	[.011]
ΔL INDP	-0.00553376	1.7360974	2.4534	[.879]
ΔL MANU	0.04923	3.640791	2.3495	[.780]
ΔL TNOR	0.463529	0.112414	4.4237	[.004]
ΔL INFL	0.0698195	0.0698195	0.3116	[.694]
ΔL MKTSH	.28948	1.992544	1.8925	[.018]
ΔL SCAP	.35718	2.41152	0.41190	[0.64]
ΔL UNEM	.47382	0.61126	2.61315	[0.22]
$\Delta L\ IMP_{t-1}$	.11284	1.78315	0.8845	[0.29]
$\Delta L\ EXP_{t-1}$	0.69428	0.385630	2.110831	[0.11]
ΔLBOP	.512337	0.3211021	1.978602	[0.31]
ΔL GDP	0.721346	.434015	1.724426	[0.12]

Source : Gret – L package

APPENDIX XXI

Technology Equation (Equation 4)

Food and Beverage Firms

Method of estimation = ordinary least squares
Dependent variable : PRT Current Sample : 1990-2015
Number of Observations : 25
Mean of dep. Var. = 12.85682 Std. dev. Of dep, var. = 2.454839
Sum of squared residuals 34.01514 Variance of residuals = .691261
R-Squared = .978466 LM het. Tet 0.798080[.778]
Durbin-Waston = 1.581675 Jarque-Bera test = 5.68102[.058]
F(zero slopes) = 60. 6091[.000] Adjusted R-squared 0.825420
Schwarz B.I.C = 101.1773 Log likelihood = 39.32259

Variable	Estimated	Standard error	t- statistic	p-value

	Coefficient			
ΔC	2.20052	3.14013	3.7045	[.491]
ΔLTECH	0.567224	0.951900	2.6164	[.304]
ΔL INV	0.06872	2.76112	2.4337	[.026]
ΔL TNOR	-0.383123	1.92814	-1.9153	[.11]
ΔL FASST	-0.110318	1.847052	2.6515	[.403]
ΔL CASST	-0.594622	0.604417	-0.2619	[.604]
ΔL SHCAP	-0.207064	0.3061010	-0.6815	[.504]
ΔL MANU	.317614	0.3152010	0.5783	[011]
ΔL INDP	0.528545	0.424210	2.31218	[0.14]

Source : Gret – L package

APPENDIX XXII

Turnover (sales) Equation (Equation 5)

Food and Beverage Industry

Method of estimation = ordinary least squares
Dependent variable : PRT
Current Sample : 1990-2015
Number of Observations : 25
Mean of dep. Var. = 9.554212 Std. dev. Of dep, var. = 1.74195
Sum of squared residuals 14.4132 Variance of residuals = .513296
R-Squared = .951226
Adjusted R-Squared = .940025 LM het. Test = 3.11649[0.78]
Durbin-Waston = 1.09514 [.000,.045] Jarque-Bera test = 2.52523[.232]
Ramey's RESET2 = 8.02300[.009] F(zero slopes) = 27.4355[.000]
Schwarz B.I.C = 41.8106 Log likelihood = .31.4134

Variable	Estimated Coefficient	Standard error	t- statistic	p-value
ΔC	13.4534	4.3752	4.40011	[000]
ΔL EXCHR	-652824	2.913164	-2.15924	[.052]
ΔL PRT	.641138	1.949749	2.721125	[.315]
ΔL INV	.92123E-02	.923417R-02	-2.587315	[.432]
ΔL CAPU	5.225732	2.424434	-2.4026	[.131]
Δ LINDP	.822514	.214581	2.76653	[.001]
Δ LINFL	-634524	.21627	1.99625	[.006]
ΔLUNEM	.567483	.19461	-2.738124	[.0313]
ΔLGDP	.525368	.231340	1.772	[.016]

Source : Gret – L package

APPENDIX XXIII

Goal Attainment Equation (Equation 6)

Food and Beverage Industry

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.169[a]	.029	0.551	.25466	0.643

a. Predictors: (Constant), POL, SOC, COM, SUP

b. Dependent Variable: GOAL ATTAINMENT

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.210	4	.053	7.811	.021[b]
	Residual	7.134	110	.065		
	Total	7.344	114			

a. Dependent Variable: GOAL ATTAINMENT

b. Predictors: (Constant), POLITICAL ENVIRONMENT, SOCIO-CULTURAL ENVIRONMENT, TECHNOLOGICAL ENVIVRONMENT, ECONOMIC ENVIRONMENT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.619	.291		9.016	.000
	SUP	.019	.041	.045	1.115	.000
	COM	.038	.045	.081	3.853	.006
	SOC	.050	.048	.100	2.452	.295
	POL	.063	.056	.106	2.001	.007

a. Dependent Variable: GOAL ATTAINMENT

APPENDIX XXIV

Factor Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.527
Bartlett's Test of Sphericity	Approx. Chi-Square	462.209
	Df	435

Sig.	0.000

APPENDIX XXV

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.140	7.133	7.133	2.140	7.133	7.133	2.048	6.827	6.827
2	1.980	6.600	13.732	1.980	6.600	13.732	1.965	6.551	13.378
3	1.886	6.288	20.020	1.886	6.288	20.020	1.884	6.279	19.657
4	1.787	5.956	25.976	1.787	5.956	25.976	1.854	6.182	25.839
5	1.574	5.247	31.223	1.574	5.247	31.223	1.615	5.385	31.223
6	1.483	4.945	36.168						
7	1.424	4.746	40.914						
8	1.397	4.657	45.570						
9	1.315	4.383	49.954						
10	1.213	4.044	53.998						
11	1.152	3.839	57.837						

12	1.083	3.611	61.448						
13	1.047	3.491	64.939						
14	1.010	3.367	68.306						
15	.952	3.174	71.481						
16	.902	3.005	74.486						
17	.821	2.737	77.223						
18	.789	2.629	79.852						
19	.782	2.608	82.460						
20	.689	2.298	84.758						
21	.647	2.156	86.914						
22	.605	2.017	88.931						
23	.554	1.846	90.777						
24	.519	1.729	92.506						
25	.482	1.606	94.111						
26	.449	1.495	95.607						
27	.400	1.335	96.941						
28	.362	1.206	98.147						
29	.297	.989	99.136						
30	.259	.864	100.000						

Extraction Method: Principal Component Analysis.

APPENDIX XXVI

Rotated Component Matrix[a]

	Component				
	Goal Attainment	Supplier Environmental factors	Competitor's environmental Factors	Political-Legal Factors	Socio-cultural Factors
Q24					.648
Q16			.576		
Q17			.654		
			.861		
Q30			.		892
Q18				.586	
Q12		.542			
Q13		.661			
Q22					511
Q28					765
Q14		.751			
Q15			.503		
Q1	.668				
Q2	.571				
Q3	-.897				
Q19				.673	
Q7	-.526				
Q29					.542

Q20				.703	
Q4	.611				
Q25					.602
Q26					.680
Q5	.522				
Q21			.654		
Q9	.557				
Q10		.634			
Q6	.564				
Q8	.574				
Q27					.594
Q23				.764	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 9 iterations

APPENDIX XXVII

Reliability Statistics for Goal attainment

Cronbach's Alpha	N of Items
.851	11

Reliability Statistics for Supplier Environment

Cronbach's Alpha	N of Items
.7.63	3

Reliability Statistics for Competitor Environment

Cronbach's Alpha	N of Items
.801	3

Reliability Statistics for Socio-cultural environment

Cronbach's Alpha	N of Items
5.29	7

Reliability Statistics for Political Environment

Cronbach's Alpha	N of Items
.752	6

APPENDIX XXVIII

LIST OF QUOTED FOOD AND BEVERAGE COMPANIES IN NIGERIA

SN	NAME OF COMPANY	YEAR QUOTED UNDER NSE	STATUS	FOOD/BEVERAGE
1	PS Mandrides Plc	1949	Delisted	Food
2	Nestle Foods Nigeria Plc	1961	Active	Food
3	Guinness Nig Plc	1965	Active	Beverage
4	UTC Nigeria	1972	Active	Food
5	Nigerian Breweries Plc	1973	Active	Beverage
6	Cadbury Nigeria Plc	1976	Active	Food
7	Northern Nigeria Flour Mill	1978	Active	Food
8	Golden Guinea Breweries	1979	Active	Beverage
9	Flour Mill of Nigeria Plc	1979	Active	Food
10	Champion Breweries	1983	Active	Beverage
11	7-Up Bottling Company	1986	Active	
12	Premier Breweries	1988	Delisted	Beverage
13	Jos International	1992	Active	Beverage

	Breweries			
14	Union Dicon Salt	19993	Active	Food
15	National Salt Company	1992	Active	Food
16	International Breweries	1995	Active	Beverage
17	Big Treats Plc	2007	Delisted	Food
18	Dangote Sugar Refinery Plc	2007	Active	Food
19	Dangote Flour Mills	2008	Active	Food
	Honeywell Flour Mills	2009	Active	Food
21	Multi-Trex Integ. Food Plc	2010	Active	Food