



## **Developing Business Process ( A study on Nigerian Bottling Company Plc)**

Oyemakinwa Olugbenga Daniel

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Supervisor (Arcada):	Andreas Stenius
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<p>Abstract:</p> <p>This thesis work is designed to basically reveal the inefficiencies that are eminent in the distribution process of the Nigerian Bottling Company; which is the company chosen for evaluation in this study; as there are huge losses of funds and other useful resources. The huge loss is as a result of the old and outdated methods employed in the distribution process of its product to its clients and customers. This thesis therefore meets the need to design a new business process that will be suggested to the company to replace the presently used in the supply and distribution unit of the Nigerian Bottling.</p> <p>For effectiveness and time constraints, the researcher has limited the scope of this study only to the corporate Head Office of the company in Lagos and likewise other neighboring depots within Lagos state since operating process are the same. Observation method were employed and important personnel within the supply chain department of the company were also interviewed in order to confirm and also act as a check on the observed outcome.</p> <p>Certain flaws such as time waste, income leakages among others were detected from the old business process. Coupled with the fact the sales deliveries are properly planned before hand and customers not given the opportunity to make orders ahead of time. A more robust process was designed and suggested to the firm.</p>	
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# **1 INTRODUCTION**

## **1.1 Background of the study**

Parkinson law states that ‘as income increases, expenses will also increase’ (Tracy, <http://www.briantracy.com/blog/financial-success/parkinsons-law/>, Financial Success, 2008). This implies that, expenses will always catch up with income. This is not only applicable to personal income, but it’s also true for a business firm. Hence, it is not out of place to say that there will be perpetual increase in expenses even when income has remained stagnant over a considerable period of time. In order to ensure that expenditures do not rise above income, there is need to ensure that expenses are closely monitored and adequately controlled, otherwise; expenses will always rise above income; which invariably implies a loss and debt position for the firm.

For any business establishment to attain any height of business survival and continuous existence; there is constant need to always ensure that cost are properly managed and kept to a required minimum in order to ensure that profitability and growth are not hampered.

Since it is relevant and important for a business firm to develop a working business model in every areas of its operation so as to ensure effective use of scarce resources at its disposal; which will invariably ensure profitability; driven by the need to closely monitor expenses and controls it; necessitates the desire for this research work. Effective control of cost and adequate cost management are necessary strategies for business survival and growth.

This thesis work is designed to basically reveal the inefficiencies that are eminent in the distribution process of the Nigerian Bottling Company; which is the company chosen for evaluation in this study; as there are huge loss of funds and other useful resources. This thesis will further come up with a business process that will be suggested to the company to replace the process presently used in the supply and distribution unit of Nigerian Bottling Company. In recent years, most business organization have not taken a cognizance look into controlling income leakages as a result of excess and unnecessary expense line, poor distribution or operational process development; but has rather concentrated much effort on generating revenue which invariably will in the long run take its course on the business survival.

Hence, it is of vital consideration for a business to put in place working internal and cost controls strategies in order to ensure business survival and maintain competitive presence in the market. Business development does not just results; it takes cognitive efforts on the part of the management team to design working modalities that put the firm on the part of actualizing its business goals and purpose. Effective business process development ensures that there is adequate cost management and cost control tools needed for achieving this aim. (Garcia-Pérez-de-Lema, Strategy for business growth, 2011)

## **1.2 Purpose of the thesis**

This study relates to the business process of Nigerian Bottling Company. It is designed to show the importance of an effective business process model in cost control and cost management in order to ensure business development. In the

business world of today, competition has never been more tensed than what is happening in the global market presently; and as such the survival of a business establishment is important in the face of stiff business rivalry in the market place(UniversityofSouthernCalifornia,([http://www.consumerpsychologist.com/intl\\_Global\\_Marketplace.html](http://www.consumerpsychologist.com/intl_Global_Marketplace.html)),(<http://www.business2community.com/marketing/global-business-competition-dont-get-outmarketed-0439165>) . Hence, there is dire need for a business organization to consciously develop its business strategies in order to ensure business survival and profitability both in the long run and also in the short run so as to maintain its existence in the market.

Hence, this research work will give an in-depth analysis of how an ineffective business process model can ruin the chance of a business attaining profitability. The supply and distribution process of the chosen company (The Nigerian Bottling Company) will be used as an example. As a result, this work could serve as useful materials for intending entrepreneurs with the hope of ensuring business success and attain business growth.

### 1.3 **Research Approach**

The research approach designed for this thesis is descriptive in nature as the supply and delivery process of the company is critically observed by the researcher and an analytical review of the flaws in the process is adequately carried out on the company (The Nigerian Bottling Company Plc., Lagos) in Nigeria with the hope of obtaining relevant and vital information needed for this research. In the same vein, in order to ensure a successful outcome of this work, the researcher has interviewed some key management staff of the company with



the belief of obtaining more realistic responses which will serve as check on the information observed by the researcher.

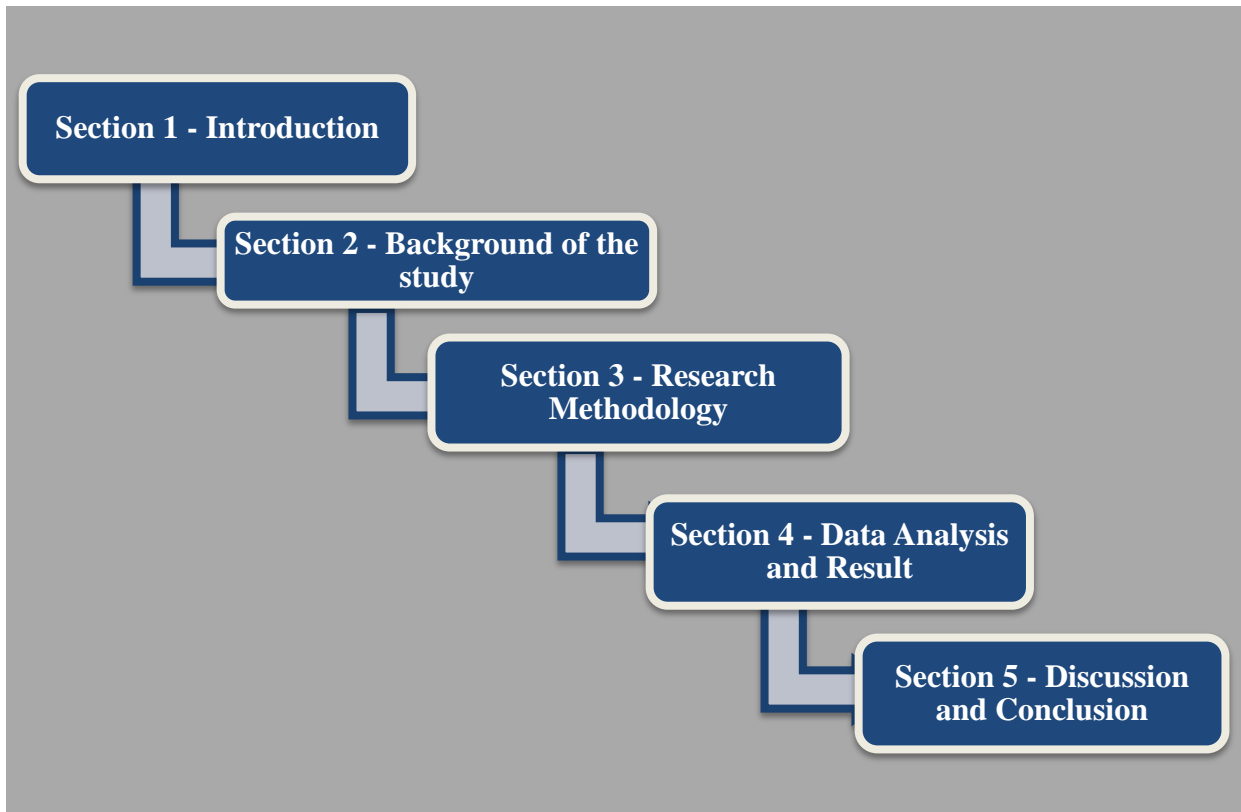
#### **1.4 Limitation and Scope of the study**

The scope of this study involves revealing the importance of effective business process model in cost control and cost management in order to ensure business development and also ensure business profitability both in the long run and likewise in the short run. This is to give us an in-depth understanding about how an effective business process model are relevant in real business problem solution and practicability, considering the dire need for cost control and management in business organizational process development.

Hence, due to time constraints and likewise limited amount of other resources at the disposal of the researcher; the scope of this study is limited to only the corporate Head Office of the company in Lagos and likewise other neighbouring depots within Lagos state. Since the business offices of the organization is so large, it is unrealistic to observe all the business processes in all of them and so; the selected branches in addition to the Head Office will be chosen from Lagos only.

#### **1.5 Structure of the study**

The structure of this study comprises of five (5) sections as its main parts and these includes the introduction, the theoretical background of the study, research methodology, result and analysis; and finally; discussion and conclusion.



**Figure 1 – Structure of the study**

The introduction page gives background information about the study. It also explains what arouses the interest in writing this particular topic. This section of the study defines the purpose of the thesis while also explaining the structure of the thesis. The chapter two (2) of this study discusses the relevant literature background of the research work and it clearly defines relevant terms like cost control, business environment, cost management, internal control and so on. The historical background and relevant business information of the case company – Nigerian Bottling Company, is also discussed in this section of the study. The research methodology forms the major part of chapter three (3). This chapter concentrates majorly on the research strategy used in collecting the relevant data. The various data collection techniques were also mentioned, qualitative and quantitative method of data analysis were also briefly explained and not

forgetting the various methodological limitation that is present in each of the chosen methods. In a nutshell, this chapter was designed to basically give the readers an overview of the research data collected, how they were collected and what strategies that were employed in the course of the collection. The next chapter, which is chapter four (4) deals with the data analysis and data presentation. Collected data were analysed at this stage and the research hypotheses were also stated. The results observed from the collected data were critically analysed and relevant conclusions were also inferred from the result. The last chapter deals with the observed findings from the collected data, the results were discussed and suggestions and recommendations were made.

## **1.6 The historical background of the case company**

Nigeria Bottling Company Plc. is the case company for this research work. Nigeria Bottling Company is a subsidiary of A.G. Leventis and was incorporated in Nigeria in November 1951. It possesses the franchise to bottle and sell Coca-Cola and other beverage products in Nigeria. The business initially started as a family business and has grown to become a dominant force and major bottler in Nigerian non-alcoholic beverage market. It commenced its production process in its head office in 1953 with the establishment of its bottling facility. It has grown its production capacity in the past year and presently has over 13 bottling facilities spread across various and major cities in Nigeria and also over 80 distribution warehouses located across the country meant to serve more than 160 million teeming consumers. With about 2.1million unit cases sales registered in 2009, the Nigerian Bottling Company has come to maintain its market leadership status in Nigerian beverage market.

The company embarked on a restricting exercise in 2010 with the hope of further expanding its market possibilities and potentials so to grow market share and improved profitability. It invested in a new state of can filling and parking line at the Apapa Plant. The new plant has been producing the first soft drink that is wholly packaged in Nigeria.

Some of the brands of the Nigerian Bottling Company which includes but not limited to Coca-Cola, Fanta, Sprite, Schweppes, Eva water, and the newly introduced Burn energy drink. The financial structure of the company reveals that there is an authorized share capital of =N=750million spread into 1.5Billion ordinary shares at 50k each, where 1,308million ordinary share at =N=654.37million is issued and fully paid. The share capital of the company grew from =N=487million in 2003 to =N=654,367million in 2006 through series of scrip issues which amounted to about 34.37% increase.

<b>Share Capital</b>	<b>2003</b>	<b>2007</b>	<b>Change (%)</b>
	<b>(Million in naira)</b>	<b>(Million in naira)</b>	
<b>Authorized:</b>	750	750	
<b>Issued</b>	487	654.37	134.37

**Table 1: Analysis of the share capital of the Nigerian Bottling Company**

Majority of the share holdings is held by foreign investors comprising of Molino Soft Drinks S.A as its major shareholder with a holding percentage of 55.81%

and CCHBC Services Ltd having 10.62% while the general public have about 33.57% holdings.

<b>Major Shareholders</b>	<b>Units of shares (Million)</b>	<b>Worth in naira(Million)</b>	<b>Percentage Holdings (%)</b>
<b>Molino Soft Drink</b>	724.4	=N=362.2	55.81
<b>CCHBC</b>	138.98	=N=69.49	10.62
<b>General Public</b>	445.36	=N=222.68	33.57
<b>Total</b>	1308.74	=N=654.37	

**Table 2: Analysis of the shareholding structure of Nigerian Bottling Company as at 2006 financial year.**

The shareholders' fund has also increased from =N=19.31billion in 2003 to =N=22.81billion in 2007 representing compounded annual growth rate of 4%.

After a significant decline in 2006, the total assets of the firm increased from =N=15billion to =N=48billion in 2007. The equity contribution to total assets as at end of 2007 stood at 47.4%, a decline from 13.1% in 2003. The reduction in total assets in 2006 could be as a result of the restructuring exercise embarked upon by the company the same year, which invariably resulted in a decline in the leverage level as debt to equity ratio also declined from 70.43% in 2006 to 41.63% in 2007(Nigerian Bottling Company plc., Annual Financial Report for the year ending 2007).

<b>Key Financial Figures</b>	<b>2003 Naira (Billion)</b>	<b>2007 Naira(Billion)</b>	<b>Percentage Change (%)</b>
<b>Shareholders Fund</b>	19.31	22.81	118.12
<b>Total Assets</b>	15	48	
<b>Equity to Total Assets</b>	13.1%	47.14%	

**Table 3: Analysis of the capital structure of Nigerian Bottling Company as at 2006 financial year.**

## **2 THEORETICAL FRAMEWORK**

### **2.1 Introduction**

This chapter gives an overview of the theoretical analysis of the various related materials on this subject topic. It clearly defines related terms and theories in respect of the topic of this research work. Relevant terms like business process management, business process model, cost control and management, cost functions and so on are clearly explained for proper understanding of the readers.

### **2.2 Business Process Management**

Business Process Management (BPM) is a business management approach designed to align an organization's business processes with the wants and needs of the clients. It involves and ensures that the designed business process is being operated as expected and the expected goals are delivered (Basha 2009, 21).

Business Process Management (BPM) ensures business effectiveness and promotes efficiencies and judicious use of organization resources while putting innovation on the table and improving process development. Every organization is expected to have a clearly defined business processes for each of its business units in order to ensure that adequate measures are put in place with the hope of ensuring that the process model delivers the goods that is expected of it.

The major advantage of Business Process Management (BPM) over its traditional hierarchical management approach is the fact that it is more efficient and more capable of bringing about a functional change needed for business transformation. Business Process Management (BPM) processes are critical to a

business survival and growths as they can generate revenue and often represent a certain percentage of an organizational cost if properly designed. For a business process to be effective and efficient; there is need to review the process from time to time in order to detect defects and obsolete line in the process and make necessary adjustment as at when needed.

“Business Process Management (BPM) sees processes as strategic assets of an organization that must be understood, managed and improved in order to deliver value-added products and services to clients. Business Process Management (BMP) goes a step further by stating that this approach can be supported or enabled through technology to ensure the viability of the managerial approach in times of stress and change” (<http://searchcio.techtarget.com/definition/business-process>, 2013). Business Process Management (BPM) ensures the actualization of organizational goals by the accomplishment of the various sub-goals broken into different processes. “Business Process Management (BPM) is simply a management-through-processes method which helps to improve the company’s performance in a more complex and ever-changing environment” (Thiault 2005, 28)

### **2.3 Business Process**

Every organization has its goals and these major goal(s) is/are further broken down into functions which need to be carried out in order for the overall goal of the organization to be achieved. Take for an instance, a business organization may have yearly dividend pay-out to its shareholders as its corporate objective; these organizations will internally breakdown this profitability into its entire



profit centre and ensure each of these centre returns its expected profit by year end for the organization to achieve its aim. Hence, a business process is a collection of activities that is designed to purposely accomplish a specific goal in an organization (Margaret Rouse, 2005). Business Process could also be viewed as a series of structured work or activities and events designed in order to generate one complete service or product for an organizations' customers or clients.

#### **2.4 Business Process Model**

Business process modelling is one of the modern terms and commonly used methodology that has grown through different stages beginning from the eras of the "division of labour" in the 1700s where manufacturing activities are for the first time moved into factories from the previously used cottage industry. This is due to the fact that it is applicable not only in conventional business settings but also to all sort of other business organization including government establishments and departments also not including non-profit making organizations like charities and also cooperatives.

Business Process Model ensures that process flows for a particular line of operation are clearly spelt out in order to achieve and improve organizational efficiency and quality service delivery. Put in another way, business process model is a structure that is majorly concerned with how to improve business performance by improving the efficiency of all the associated activities that are involved in the delivery of a service or production of a product. Hence, the key idea behind business process model is efficiency.

What makes business process model a necessity for business development and growth is the fact that it relates to every aspect of business management beginning from the generation of business ideas, profitability, cost structure, managing market change, project execution and design, division of task etc. In order to ensure proper understanding, analysis and changes in the model structure, business process model employs the use of diagrams, mapping and “workflow”. It is the diagrammatic representation of the model structure that is often referred to as notation (Smith, Howard and Fingar, 2003). In practice, the effectiveness of business process modelling largely depends on the support it receives from the people. The purpose of an effective business process may be defeated if it is not properly implemented by the people or employee of the organization.

Business process model is a management tools for change which can work alongside with other tools like SWOT analysis, balanced scorecard and project management method. In nutshell, Business Process Modelling (BPM) is a management tool purposely created to structure with diagram and description of the process flow of specific line of activities or operation of an organization. It connects people, teams and departments in terms of what they do, how their work relates with other department, team or people and for what reason.

There are basically two (2) major types of Business Process Models. These are

**The “as is” Model:** This is also known as the baseline model and it majorly involves current situation of the process model. It gives a detailed and accurate situation of what is present event. This model is used to analyse and improve the process.

**The “to be” Model:** This is the model that describes the newly created and intended business model. It defines the process model expected in a newly created department in an organization, which is how the future process will look. This model is used to test and detect the defects in a process with the aim of improving the process.

(Gillot, 2008). The complete guide to Business Process Management) The main purpose of a business process model is to give a clear understanding about the process flow of an organization with the view of improving quality delivery of value given to customers and to also reduce cost ( both operating, financing and incidence) of the company which will further improve profitability. Also, a successful business process model could also result in increased competitive advantage in market, an improvement in the market share as a result of quality and value delivery to customers, high rate of staff retention and so on. There is a thin line between work flow diagram and business process model, the major difference lies in the fact that adding value to customers, both internal and external; forms the central theme of business process model as it ensures that customers’ needs which is the reason for the model in the first place is justified at the end of the process while workflow concentrates majorly on the departmental activities (Juran, J.M., 1988).

## **2.5 Cost Management and Control**

Cost management is a business management strategy that involves the process developing internal control procedures that is meant to ensure the judicious use of business resources and reduction in cost of business operation. The main idea

behind this concept is the fact that profitability can be greatly influenced provided costs are properly managed and controlled. Hence, profit has the three (3) possible combinations which are:

- Keep cost constant over a considerable period of time and increase revenue through increased sales
- Keep revenue constant over a certain period of time and reduce cost through improved cost control techniques, and
- Increase revenue and also reduce costs simultaneously over a period of time.

(Adeola I.O., An introduction to cost accounting, 2006). Findings have suggested that most business managers prefer to and concentrate much effort in maximizing profit via increasing revenue which may be done either through increase in price of product sold or increasing the sales volume as a result of large share of the market being captured. In most cases, majority of the managers on this matter treat cost as fixed and then concentrate on other increasing revenue.

In a nutshell, cost management involves defining strategies both in the short and long term involving planning and activities that are involved in ensuring that cost are properly guided in order to ensure that there are no unnecessary increase so as not hamper profit growth. Its emphasis is majorly on cost control, resources wastages and loss reduction. It forms the basis for organizational planning as it is possible for an organization to increase cost on advertising and product production process with the hope of increasing production output and sales revenue which further results in increased revenue and profitability.

Cost control involves regulating cost in order to attain certain business objectives such as profitability, market dominance, business survival etc. The institute of cost and works accountants of India defines cost control as the act of power of controlling and regulating or dominating costs through the application of management tools and techniques to the performance of any operation to most predetermined objectives of quality, quantity, value and time at an optimum outlay.

## **2.6 Cost accounting**

Cost accounting is simply an accounting concept that accounts for cost. It involves the process of accounting for income and expenditure relating to a cost unit, cost centre or cost object with the purpose of making a periodic statement and reports needed for observing the cost implication and control. It is a system that aids management decision in respect of a product or services in order to ascertain and control cost behaviours. (Drury, 2008).

Cost accounting plays a prominent role in the successful management of a business organization, most especially in achieving the profitability goals of the organization. (Pizzey, 2009) Some of the objectives of cost accounting are briefly outlined as follows

- The ascertaining of cost that are assigned to a product, process and service. Ascertaining this cost in conjunction with other associated benefits will help the organization to take a decision on whether to embark on the project or not.

- Cost accounting also help in the determining the selling price of a product. During the process of determining how much to fix for the selling price of a product, cost accounting help to determine how much it cost the organization for them to make available the goods for sale and as such the expected profit to be derived from each unit of the product is added. Hence,  $SP = CP + P$  Where; SP= Selling Price per unit, CP= Cost price per unit and P = Profit per unit. Where it's impossible to determine the cost price per unit, the selling price may not be realistic as it may rather be too high for the consumer to afford or too cheap for the organization to make profit.
- Cost accounting also provides basis for cost control and cost reduction. With the help of cost accounting it is easier to ascertain which production unit is becoming unprofitable and as such costs associated with the production line needs to be examined, reduced or controlled accordingly. With the help of budgetary control, standard costing and so on; it is easier controlling cost of production as budget are prepared ahead of time to serve as guide and the standard cost of the product is known before hand and with that, it is easier to measure the difference with the actual cost and standard cost.
- Cost accounting also provides the basis upon which managerial decisions are taken as it is the platform for designing operational and financial policies. Cost accounting is the bedrock of effective and efficient managerial decisions.

- Other objectives of cost accounting are measuring and increasing efficiency of an organizational production output and also ascertaining profit.

### **3 RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter has been designed specifically to clarify certain terms used in the process of obtaining relevant information presented in this study, the method of data collection, and techniques employed in this write up. The various data collection techniques are briefly explained, with the flaws of each of the methods also mentioned, not forgetting the limitation of the study and also the study areas covered by the research.

Research methodology is being described as the basis for reasoning in order to obtain an in-depth insight. Ghauri and Gronhaun (2005). They also viewed it as the basis for communication and reporting on the rules and procedures for fact finding. Aiyemojuba (1991) defines research as any organized and classified fact finding; designed to purposely provide the platform for solving identified problems. Hence, it is not out of place to say that a research work is expected to have at least a problem that it is capable of or designed to solve.

Research originates as part of science and has over the years found its usefulness and application not only in business but also in other disciplines. It is as a result of this development that some researchers have been able to regard research as science based discipline. Horn in 1974 defines science as knowledge arranged in an orderly manner. He also defined it to mean knowledge obtained by observation and testing of facts and the pursuit of knowledge.



### 3.2 Methods of Data Collection

There are various methods of collecting data needed for research study and business report analysis. These methods can be broadly categorized into two (2) broad headings which are primary and secondary sources of data collection.

#### 3.2.1 Primary method of data collection

This is majorly referred to as data collected from the sources by the researcher himself as a result of non-availability of data that relates and relevant to the study under consideration. The methods of procuring data directly from the source come in different forms. Some of these techniques possess some advantage over others while some also serve as check on the other method used ( Burns and Bush, 2010).

For the purpose of clarity, the primary data source has two major approaches to data collection. These two approaches are questioning and observation.

<b>Questioning Approach</b>	<b>Observation Approach</b>
<ul style="list-style-type: none"><li>• It involves the designing of a questionnaire.</li><li>• The questions could come in the form of an oral interview or a questionnaire being filled by the respondents.</li><li>• It can be used in exploratory,</li></ul>	<ul style="list-style-type: none"><li>• It is passive in nature</li><li>• The presence of the researcher is necessary.</li><li>• It can also be used in exploratory, descriptive or experimental research.</li><li>• It is time consuming</li></ul>

descriptive or experimental research.	
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Some of the methods that fall under the questionnaire approach are briefly outlined as follows:

- **Mailed Questionnaire:** This is a common method where a series of questions are drafted and carefully arranged serially through a set of questionnaire. A questionnaire is a document that contains these serially arranged questions that relate to the problem the investigator intends to enquire about. The questionnaires are then mailed to the informants with a formal request expecting the respondent to answer the questions. The questions are expected to be simple, short and concise; it should be corroborative in nature so as to serve as check on the response of the respondents. The major disadvantage of this method is the low response rate of the informants and also the level of accuracy of the response may be in doubt.

- **Direct Oral Interview**

This is another form of obtaining relevant information through oral interview. The series of outlined questions were being asked from the respondents who have direct access to the information needed to solve the problem at hand. During the course of the interview, the informants have the privilege of reframing the questions in order to ensure that the respondents have a clear understanding of the question. More so, it is also possible to obtain relevant information

from the mood and facial gesture of the respondent which will act as a basis for cross examining the response accuracy. This method is time consuming and cost ineffective, most especially where the list of respondents to be interviewed are large.

- **Telephone Conversation**

This is another form of primary data where relevant information is obtained via the telephone. This is cost effective when compared with oral interview as the interviewer is not required to be physically present with the respondents. The absence of facial and body language needed to aid observed response is one of its weaknesses. On the other hand, direct personal observation remains the only method under the interview method.

- **Direct Personal Observation**

This is the method of obtaining primary method where the informant is directly involved in the observation of the problem at hand with the hope of obtaining first-hand information. This method also embraces a bit of oral interview so to act as confirmation of the observation of the researcher. Both the observer and also the informant are both present at the data collection spot.

This method gives one of the most accurate sources of primary data as the information is obtained directly from the source by the researcher. As a matter of fact, it is cost ineffective as adequate time and resources are consumed.

### 3.2.2 Secondary Method of data collection

The secondary source of data collection simply refers to as data obtained from ready-made sources or data used by other researchers. They are data that are already in existence in one form or the other as they have been collected used and analysed by previous researchers. (Edison F., 2008). A primary data, that's data obtained from source by a researcher will become a secondary data to another researcher since the data did not originate from the second researcher. A typical example of secondary data are financial figures obtained from Annual Financial Statement of a company, Population figure obtained from population register, stock prices fluctuation obtained from the records of the stock exchange, etc. A secondary data may serve different purposes to different researcher based on what problem(s) each of the researchers are looking out for (Dunn, 2005). A researcher may use a combination of both secondary and primary data, the application of both methods will depend on the situation of the researcher and more so, one of the methods could act as check on the data obtained from the other source.

Afonja (1979) broadly categorized secondary data into two (2). These are

**Published Source:** Published sources are referred to as data that are already in existence in one publication or the other. Published data are easily accessible as compared to those from unpublished source. The major origins for published source are: Research reports and learned journals, Daily newspapers, magazines and miscellaneous periodicals, Internet sources, Miscellaneous reports of government and non – government agencies and bulletins, statistical abstracts and reports issued by government departments especially their statistical units.

**Unpublished Sources:** The unpublished data existing in their original form in files, log books and other registration form of many government and non-governmental departments. In order to have easy access to the usage of these sources, some familiarization with the subject matter and in-depth understanding of the department or organization are necessary.

### **3.3 Methods of Data Collection for this report**

The method of data collection for this research study involves observing the delivery process model of the Nigerian Bottling Company and detecting the flaws in the process. Hence, the observation method of primary data collection technique forms the basis for this business report; this is due to the need for the researcher to have first-hand information about delivery process which may not be documented in any secondary sources. During the course of observing the delivery process, the process flow is clearly outlined and each of the delivery stages is keenly observed with the intention of diagnosing income leakages and excessive resource wastages.

For the purpose of clarification, the 'As is' Model which is also known as the baseline model will be used for this study as it involves the description of the current situation of the process model with the intention of analysing and improving the process. With this model, it is easier to detect the flaws in the current model of the Nigerian Bottling Company which invariably helps to determine what measures to put in place at improving the detected deficiencies.

The challenges that are involved as it relates to validity is the fact that the researcher has control over the source from which information is being sort and

as such irrelevant information collected from the observation can be deleted and trimmed to a more useful quantity while interview with the major personnel handling the delivery process could act as a control measure and check in order to give the reliability of the collected information.

Further efforts were geared towards ensuring that all the flaws and deficiencies noted in the process are amended and a more efficient and convenient process model is developed and presented to the company with the hope of replacing the previously used 'hawking delivery system'.

In order to ensure the reliability of the observed process; certain key personnel were interviewed so as ensure that the process being observed are accurately documented. This is necessary in order to ensure the reliability of the information being presented.

The hawking delivery system is a delivery method where supply of goods are not properly planned before embarking on delivery as the customers are not privileged to make order prior to delivery. The hawking delivery style supports stocking the truck with goods and delivery is based on the instant order of the customers. One of the major disadvantages of hawking style of delivery is the fact that certain product may enjoy huge demand from customers whereas the said brand of product are not available on the truck as the demand are not pre-planned.

## **4 PROCESS DELIVERY ANALYSIS OF THE NIGERIAN BOTTLING COMPANY**

### **4.1 Introduction**

This chapter has been designed to specifically bring to the fore the various deficiencies that are eminent in the delivery process of the Nigerian Bottling Company Plc. Considering the market presence of the Nigerian Bottling company in the food and beverage market in Nigeria; coupled with its teeming consumer base of about 160 million (Annual report of the food and beverage sector, The Nigerian Stock Exchange, 2011); it is expected of the firm to have its distribution network properly planned in order to ensure that there is optimum return on revenue invested in this business by the shareholders and minimize cost as much as possible in order to give room for business development and growth, both in terms of profitability and market share coverage.

### **4.2 Mode of Operation and Delivery Process**

The process flows of its delivery process are briefly explained as follows in order to ensure a proper understanding of the delivery process and also the other logistics involved.

The firm has its various production facilities spread across the country and also has Depots in other strategic areas which are popularly regarded as Strategic Business Units (SBU), which serves like a mini-warehouse in some areas where there are no easy accesses to the market directly from the factory. On this occasion, the researcher was at the Apapa plant of the company which is the starting point of this study. Since the goods originates from the factory before

being delivered to the clients, it is necessary to start from there. I met the factory supervisor and explained my purpose while he also confirmed that there was a mail from the Group Head, Channel and Distribution of Nigerian Bottling Company, Mr Charles Oputa informing him of my arrival.

The factory Supervisor was interviewed in person Mr Adeola Olaobaju. He clearly explained the process involved in the production process and how the goods are delivered to the warehouse including the relevant documents needed to be filled.

After the production of a batch of the company's product, a production invoice which is in triplicates is filled. The invoice states the product's name, quantity, batch number, date of production, the officer preparing the invoice, signature of the relevant officers and so on. Mr. Adeola Olaobaju stated that the original copy of the form goes to the warehouse with the truck driver and also the personnel that will accompany the goods to the warehouse for onward delivery; a duplicate copy is retained in the factory's file while the third copy goes to internal control department.

In the factory, the factory manager supervises the administrative work and handles all necessary documents. He is expected to sign the production invoice before goods can be taken to warehouse or depot as the case may be. There is also an internal control personnel attached to the warehouse that is independent of the factory manager. The internal control personnel ensures adequate record keeping from the factory and he also performs weekly stock takings in order to ensure that records also tally with the physical goods.



From my observation, it was detected that each of these units are not connected. Each of the units operates as an independent unit. For security reasons and to prevent divulging the firm private information, I was not allowed to make a copy of any of the forms.

The company has its fleets of trucks, with each truck having its own driver and personnel who handles the logistics of delivering the goods to the SBUs or Warehouse. I was privileged to join one of the fleets of trucks meant to supply goods to one of the depots in Oshodi area of Lagos state. It took about 2 hours for the trucks to deliver the goods to the warehouse as a result of hectic traffic on the road coupled with bad road networks; a journey that is expected to be about 50mins at most. Upon getting to the warehouse, the warehouse supervisor collected the goods, examined them in accordance with the specification that are filled in the production invoice and certified that they are in good condition and in the same quantity. Upon collection of the goods, he signed his own portion of the production invoice and collected the original and gave back the two (2) other copies to the personnel. One for the factory and one for internal control department as earlier explained.

After completing the necessary records keeping, the warehouse supervisor in person of Mr. Peter Odili took his time to show how the goods in the warehouse are arranged for easy sorting, monitoring, stock keeping and accountability. There are assigned fleets of trucks and driver to each of the warehouse as he explained. On a daily basis, each of the trucks is loaded with goods from the warehouse. The assigned personnel to each of the truck have the stock list with him. The stock list outlined all the various range of the company's product

loaded on the truck with the personnel cross checking the accuracy of the stock list before leaving the warehouse. Upon certification of the accuracy, he signed off the stock list and drops a carbon-copy of the list with the warehouse supervisor. The warehouse has a computer system where all the items in the warehouse are listed, the quantity, the sales value and total amount.

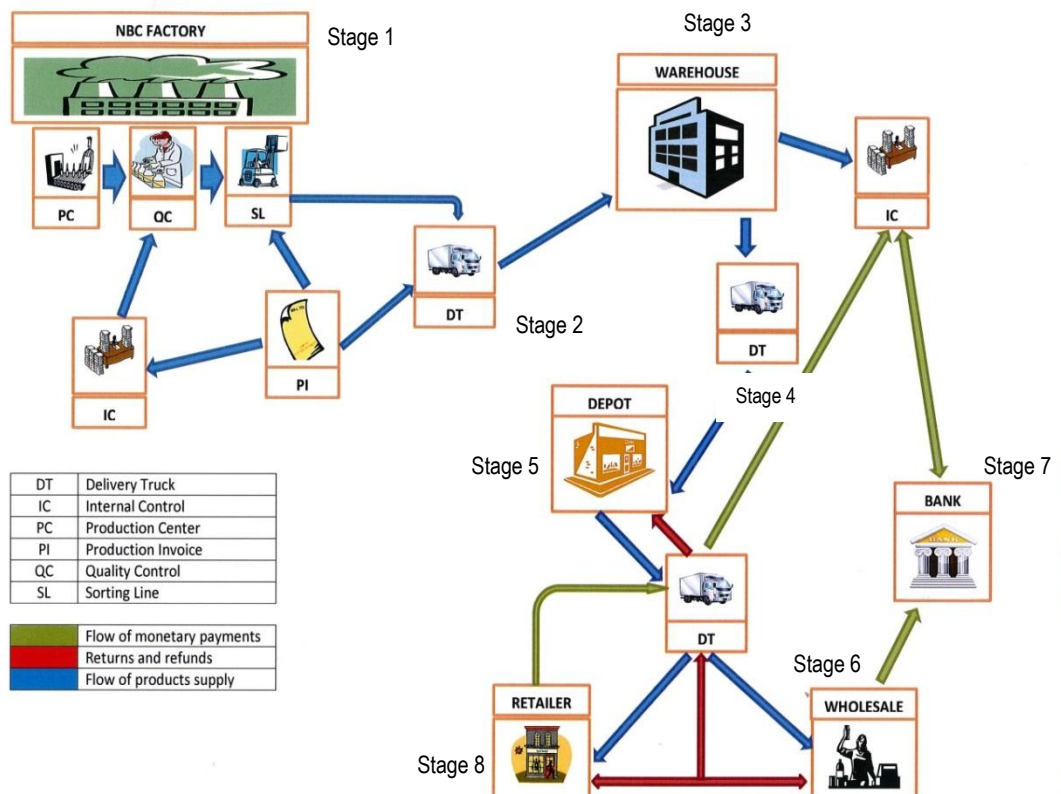
Each of these trucks is assigned to specific areas expected to cover with the hope that each of the clients visited by the truck drivers will be interested in buying the goods. Each coverage areas have a comprehensive list of customers within the vicinity. Each of the personnel assigned to each of the trucks is saddled with the responsibility of ensuring that cash collected from customers are properly lodged into the bank and deposit slips are forwarded to the sales and finance department while the photocopy is filed in the warehouse as evidence of payment and also for daily account reconciliation after daily transactions. This personnel is also expected to deliver customer's complains to the warehouse manager on daily basis for management decision making. Each of the warehouses organizes weekly meetings in order to discuss matters and challenges being experienced while on the road to deliver goods to clients.

From the warehouse, it was detected that there are no systematic way of detecting that certain goods are out of stock. The rigorous processes of stock taking are done manually. This invariably gives rooms for arithmetic errors.

The sales and finance department co-ordinates the selling and financing activities of each of the warehouses and Depots. They are saddled with the responsibilities of confirming all lodgements into the company's account. They liaise with the banks on behalf of the company. In the event of where certain

items were destroyed during the course of the delivery, the warehouse supervisor will be properly notified and adequate records are kept.

**Old Model NBC**



**Figure 2: The delivery process of Nigerian Bottling Company.**

**The Old Process model**

**Stage 1: The NBC Factory:** This is the location of NBC where the goods are being produced. The NBC factory is headed by the factory supervisor that co-ordinates the activities of the production process. NBC has its various production facilities spread across the country and also has depots in other

strategic areas which are popularly regarded as Strategic Business Units (SBU), which serves like a mini-warehouse in some areas where there are no easy accesses to the market directly from the factory.

**Stage 2: Delivery Truck (DT<sub>1</sub>):** This the path through which goods are been delivered to their respective location for onward deliveries. NBC has its fleets of trucks that move good from the factory to the depots and SBUs. A copy from the triplicate copy of the goods to be delivered to the depots is filled from the factory and it accompanies the truck and its driver. The delivery document is meant to confirm the amount of goods on delivery.

**Stage 3: Warehouse:** For effective distribution of goods and service, goods are moved to the warehouse for onward delivery to nearby Depots and Strategic Business Units (SBUs) which are strategic selling outlets designed with the intention of reaching out to the consumers. In some areas, the SBUs also serve like a mini-warehouse in some areas where there is no easy access to the market directly from the Warehouse. Consequently, the goods are stored up until when customers make demand for them.

**Stage 4: Delivery Truck (DT<sub>2</sub>):** This is the delivery truck assigned to the warehouse. The delivery truck moves the goods to the Depot where the goods are further stored. The difference between the warehouse and the Depot is that; the warehouse stores goods that are produced fresh from the factory and it has a large capacity for storage in comparison to a depot. Depot on the other hand is created to purposely hold the company's range of product temporarily before sales are done within the environment.

**Stage 5: Depot:** This is termed as a mini warehouse where the company's ranges of products are temporarily stored pending when sales are done within the environment. It serves as the local place of purchase of goods for local buyers. There are also assigned truck drivers to the Depot just like the warehouse. Each of the trucks are at this point loaded with the company's range of products on a daily basis and the truck moves round the vicinity within which the trucks are covered in search of the customers (wholesalers) of the company who will be willing to buy.

**Stage 6: Wholesaler:** The final point of the delivery is the wholesaler and retailers. The truck drivers meet the wholesale and retail customers of the firm within the environs with the hope that they will be willing to buy for a particular day. In a situation where the wholesaler is not ready to buy, the goods are returned to the depot for safe keeping.

**Stage 7: Bank:** The wholesaler makes a cash payment either to the bank or a cash payment to the truck driver and a receipt of delivery and cash payment is issued to the customer.

**Stage 8: Retailer:** The retailer also has a choice of buying either directly from the wholesaler or from the moving truck.

#### **4.3 The flaws in the delivery process**

From the observed process, it was discovered that certain flaws are possible in this process. These flaws are clearly outlined as follows for the purpose of clarity.

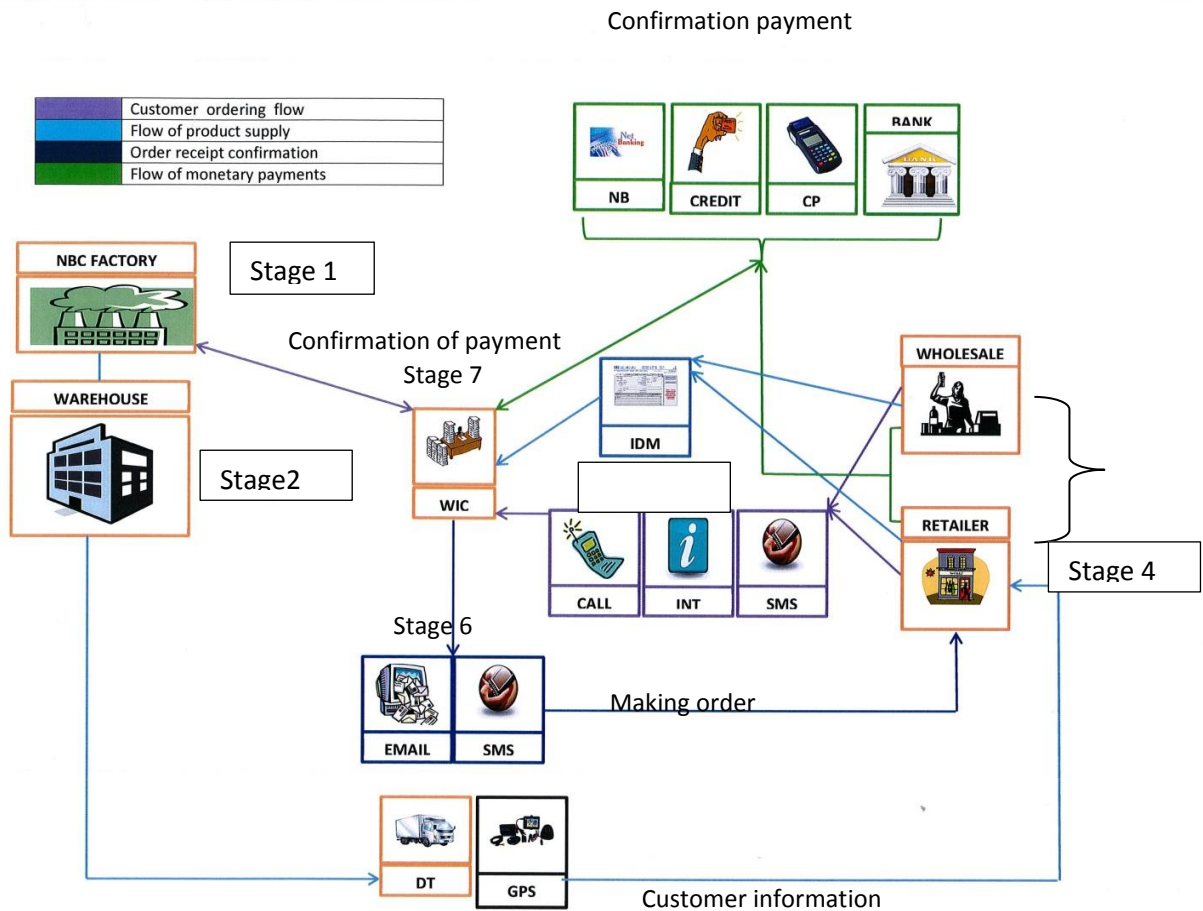
1. There is huge deficiency in the 'Hawking Style' of the delivery system as lots of resource got wasted by this method, this is due to the fact that sales delivery are not properly planned before-hand.
2. There is also poor delivery time as customers are not given opportunity to make orders either via the website of the company or through emails and other means.
3. As a result of the huge customer base, it may be impossible to satisfy all the customers by this method as there could be an instance where there is high demand for the product as a result of demands from every customer which may mean that there won't be enough products on hand for delivery.
4. The depot are not properly managed as there had been an instance where they run out of stock of a particular brand of the company products because the stock control system were being done manually which is subject to human deficiencies, poor book keeping and arithmetical errors.
5. The possibility of the assigned personnel collecting cash from client defrauding the company is high. More so, the risk of carrying huge cash; which at some other time the banks would have closed business activities and as such could not be banked for the day; is another factor for consideration.
6. There is also absent internet connections networking all the various SBUs with ice for effective dissemination of information and effective distribution of goods and services.

It is worthy of note that despite these huge deficiencies; the choice of this method is based on the following:

1. The absence of strong internet connection before year 2000 in Nigeria makes the use of this old process the only choice available to NBC.
2. The huge capital outlay required to put the needed facilities in place makes the old process the best option to be used.
3. The literacy level of the esteemed customers of NBC also explains the reason for the choice of 'hawking style'. Majority of the customers of NBC don't understand the uses and the technicalities that are involved in employing internet communication facilities like emails.

#### **4.4 Overview of the newly designed Process Model**

This is the newly designed process model meant to correct all the deficiencies being highlighted above with respect to the old process model. This model is user friendly as everyone has a role to play as each and every one is acting as check on the other.



**Figure 3: Overview of the new Model**

### The New Process model

**Stage 1: NBC Factory:** This is the location of NBC where the goods are being produced. The NBC factory is headed by the factory supervisor that co-ordinates the activities of the production process. NBC has its various production facilities spread across the country and also has depots in other strategic areas which are popularly regarded as Strategic Business Units (SBU), which serves like a mini-warehouse in some areas where there are no easy accesses to the market directly from the factory.



**Stage 2: Warehouse:** For effective distribution of goods and service, goods are moved to the warehouse for onward delivery to nearby Depots and Strategic Business Units (SBUs) which are strategic selling outlets designed with the intention of reaching out to the consumers. In some areas, the SBUs also serve like a mini-warehouse where there is no easy access to the market directly from the Warehouse. Consequently, the goods are stored up until customers make demand for them.

**Stage 3: Customer Database:** NBC at this stage has centralized information system of all its customers. The details of the clients are uploaded in the firm's database which includes the location of the customers, business name, telephone number, email address and so on. With this, it is easier to manage the amount of customers in the business operation of the firm and also keep them abreast of new products and relevant adverts and promos via emails and text messages.

**Stage 4: Making an order:** Customers make an order either through the email or a text message through a designated email address and phone number respectively. When an order is placed by a customer a confirmation email is sent acknowledging the receipt of the order. The customer's order could be from a wholesaler or retailer whose data is already on the records of NBC. When an order is placed, it moves to Stage 6 where the order is confirmed and forwarded to both factory and warehouse for processing. The order goes to the factory in order to ensure that certain quantity of the NBC product is going down and replenishment is needed in the warehouse.

**Stage 5: Mode of Payment:** When a customer places an order, the next stage is making the necessary payment into the bank. The forms of payment could either

be through net bank, cash payment to bank or credit facilities from a bank or NBC itself.

**Stage 6: Confirmation of Order:** This is the stage where the order placed by a customer is being confirmed and processed. The order is received either via a designated email designed for this purpose or text message from a phone number.

**Stage 7: Confirmation of payment:** The moment the customer has made the payment to the NBC depending on the payment mode used. An evidence of payment is sent via email or text message to the Finance for confirmation of the payment. The moment confirmation of payment is done, an order issued to release goods to the customer via the delivery truck. The delivery truck obtains the details of the customer from Stage 3 where the data has been stored and moves the goods to the customer's location.

#### **4.5 Advantages of the newly designed process model over the old model**

An in-depth overview of the newly designed process model suggests the under listed advantages over the previously used model by the Nigeria Bottling Company.

- Eradicates the possibilities of theft as cash are paid directly into the bank.
- Quality time and resources are saved as goods are only delivered to customers whose cash payments have been confirmed as compared to where the hawking system is in operation.
- It also reduces the incidents of fraud as there are checks and balances from each of the departments.

- The customer information database gives the firm the opportunity to know at a glance customers with high volume of transactions and the number of customers in the firm's portfolio.
- The designing of the robust website could also give room for internet marketing as it is easier reaching the clients over the internet.
- Getting feedbacks from the customers is also easier as client's reports and complains can be reached via the internet and prompt response also given almost instantly.

## **5 DISCUSSION AND CONCLUSION**

### **5.1 Discussion**

As previously explained, it has been established that for business firm and also in personal life, expenses are always expected to catch up with income and always continue to increase if not properly checked. The old method employed by the Nigerian Bottling Company; in the course of the delivery process suggests one of the areas of income leakages and continuous increase in expenses as there are various flaws associated with this primitive method of goods delivery.

With this method, the customers are not giving value for money as the delivery time may be too long or even late. The demands of the customers are not tailored along with the delivery. The ‘‘Hawking’’ style of delivery suggest a possibility that a brand of the company’s product could have been exhausted before the truck gets to other clients location as a result of other customers demand that have been met along the way.

More so, there is also need for the Nigerian Bottling Company to also ensure that Depot are organized and equipped with sophisticated stock control and monitoring gadgets which will aid effective stock and production process. With an effective stock control process, production could be planned along the level of demands of each brands of the company’s product and also reduce cost incurred on warehousing those goods. This will also make it possible to determine the economic order quantity (EQO) of each of its product. The

manually used process defeats this advantage and creates the possibilities of inaccurate and poor method.

- The emergence of Internet Communication Technology (ICT) has brought an immense development in the business world. Consequently, it is paramount for the management of the Nigerian Bottling Company to embrace this development in order to deliver an optimum return on the shareholders' investment and also other stakeholders.

## **5.2 Conclusion**

In Conclusion, it has been an awesome task to be able to come up with a business model that is intended to take the delivery process of the Nigerian Bottling Company to another level. The old process model has been developed without having an in-depth understanding of the flaws that are eminent in the process.

This research work has been able to establish the various flaws and control lapses that are in the old delivery process and a more robust process model has been designed which is intended to replace the old and out-dated model.

The newly designed model involves the use of internet and other related facilities and is able to deliver immense economic benefits, both materially and otherwise to all stakeholders if adequately implemented as prescribed.

This research work has been carried out with the hope of arriving at the aforementioned benefits and as such it will be a great deal if the management of

the Nigerian Bottling Company considers the proffered model for its business delivery process.

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