
REVIEW OF OPERATIONAL CONSTRAINTS RESPONSIBLE FOR BENUE CEMENT COMPANY'S INABILITY TO ACHIEVE STRATEGIC BUSINESS MISSION AND OBJECTIVES

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ABSTRACT: *This study is a critical review to determine the operational constraints responsible for Benue Cement Company Plc's inability to achieve its strategic business mission/objectives, which led to its takeover by Dangote Cement Plc as its subsidiary plant. The research method adopted is an analytical, historical and descriptive survey analysis. Primary and secondary sources of data were used for the study. The instrument use for data collection was a five point Likert scale questionnaire designed to meet the research objectives for the study. 308 participants were used for the study. Analyses of data and result from literature and empirical reviews suggests that: BCC Plc had these operational constraints: low capacity utilization, weak liquidity, erratic public power supply, higher prices of petroleum products, re-capitalization, high operating and distribution cost; inability to meet customer demand ; production and distribution inefficiency, inadequate spare parts, raw materials scarcity, management inability to manage its business opportunities and threats, incessant plant breakdown, which resulted in occasional shift in brand preference . The research conclude that BCC Plc's management lacked good sense of urgency in managing the company's operations to survive, grow, remain competitive and profitable to achieve strategic business mission and objectives in its business operations.*

KEYWORDS: Operations, theory of Constraints, Benue Cement Company Plc, Strategic Business Mission, Capacity Utilization, Technology.

INTRODUCTION

Three economic goals guide the strategic directions of almost every business organization. Whether or not the mission statement explicitly states these goals, as Peace & Robinson (2013, p. 26) said it reflects the firm's intention to secure survival, growth and profitability. The case of BCC Plc was significantly difficult to understand and manage successfully as it grapples with series of operational constraints for many years of the company's existence and operations. In general terms, some of the major operational constraints that militated against optimal performance of Cement companies in Nigeria were similar, but with particular reference to Benue Cement Company Plc between 1980 and 2002. Agema (2002) listed low capacity utilization, weak liquidity, erratic public power supply, higher prices of petroleum products, recapitalization problems, high operating and distribution costs etc. in a survey conducted.

Recent study by Muwakiyesi (2011) also confirmed that given Nigeria's heavy cement supply deficit and historically low local production capacity. He noted that Nigeria's cement consumption level is significantly lower at about 105 kg per capital. In addition, Report from Nigerian Bureau of statistics states that Nigeria's average utilization rate for the cement

manufacturing sector stood at 53.39% between 2002 and 2007. In the case of BCC Plc, owing to gradual the ramp up of the Abajana and Gboko (Former Benue Cement Company Plc), which were commissioned in 2007 and 2008, capacity utilization dropped to 47% in 2007, but rose to 59 in 2009. The Gboko Plant (Benue Cement Company Plc) has not been able to ramp up capacity utilization as fast as Obajama due to use of Low Pour Fuel Oil (LPFO) *ibid*.

The key risk facing cement industry players in Nigeria relate to energy cost and supply, with the major fuel types use to power cement kilns being low pour fuel oils (LPFO) and coal with coal being the newest fuel substitute in Nigeria cement industry. According to Okigbo (2013) the available seven cement factories in Nigeria were producing at different capacities and were hardly able to produce up to 2 million metric tons all together. This low level continued until in 2000 when the government started to think of ways of improving Local Cement production. The reasons adduced for low productivity include: insufficient fuel oil to sustain production lines, incessant plant closure, poor power supply, and cement haulage, poor capital base, obsolete machines and high cost of running the plants. Consequently, Pearce & Robinson (2003. p. 26) states that a firm that is unable to survive will be unable of satisfying the aims of any of its stakeholders. This situation affected BCC Plc for many years of its operations as stated in the Company's Annual Reports of Accounts. The issues are examined in the study with specific reference to what was Benue Cement Company Plc before the company's takeover by Dangote Cement Plc. Some of the constraints still persist as a subsidiary plant under Dangote Cement Plc as conceptual, theoretical and empirical review suggests.

REVIEW OF RELATED LITERATURE/THEORETICAL UNDERPINING

The Profile of Benue Cement Company Plc, Gboko

The history of Benue Cement Company Plc which has been described as the pride of Nigeria in the cement manufacturing sector dates back to 1960 when traces of limestone deposits were discovered in Mbayion in Gboko Local Government Area of what is now Benue State. This discovery by the Geological Survey Department of Ministry of Mines and Power aroused the interest of the defunct Benue Plateau State Government in 1972. Feasibility studies for establishing a cement plant in the area were initiated by the State Government.

Considering the shortage of cement which was seriously affecting the nations building and construction projects at that time, the Federal Military Government directed its Ministry of Industries to participate positively in the State Government's laudable cement project. Consequently, negotiations were held and arrangements eventually concluded with the universally renowned Cementia Holding AG of Zurich by the Federal Government.

These negotiations and arrangements led to the presentation of a confirmative study report to the Federal Government for the construction of a cement plant at Mbayion with a projected production capacity of 600,000 tones of Portland Cement annually. However, on the advice of the Federal Ministry of Industries in 1981, the projected capacity was increased to 900,000 tones with two production lines, which was also capable of being expanded to 1.2 million tones per annum in the long run period of the company's operation.

Feasibility Study

Limestone was discovered few kilometres North of Yandev during prospecting operations for lead and zinc in 1950. Further investigations were carried out in 1956 and 1962 by trenching and limestone was traced along a strike for more than eight kilometres. The direction of the strike was determined to be south-west, starting from a point North of Yandev and crossing the Makurdi Yandev Road near kilometer 72. The proper position of the main limestone bed was confirmed by the Geological Survey Department of the Federal Ministry of Mines and Power in 1964. Investigations were also carried out for Henry Slevens of Ilesha, who was issued a Mining Lease for 1,500 x 805 metres of limestone North-East of the Makurdi-Yandev Road in 1967. This Mining Lease was canceled due to inactivity in accordance with mining regulations.

In 1973, a detailed field work was undertaken by Kloachner Industri-Anlagen of Western Germany to examine the raw material reserves over a strike length of 1.5 kilometres South-West of the Makurdi-Yandev Road. This survey confirmed the previous findings including the strata dipping angle of 5 – 20° towards North-West. Additional investigations were carried out by Cementia Engineering and Consulting Limited of Zurich Switzerland in November and December, 1974. This investigation was to check the chemical compositions and to examine the deposit of the raw material (limestone) in more detail within an initial reserve block over a length of one kilometer.

Construction and Erection

According to Omale (1985:20) tenders for the construction of Benue Cement Company Plc which was expected to start production of Ordinary Portland Cement in 1979 was invited by the Technical Partners – Cementia Engineering and Consulting Limited of Zurich from reputable construction companies in 1976. Many reputable construction companies registered in Nigeria tendered but, a Swiss Consortium – Swiss General Contractors (SGC) won the contract for the civil work. By January 1977, the Swiss General Contractors fully mobilised and commenced construction work. Despite financial constraints, the civil construction of the factory buildings progresses well and by 1978 about 80% of the civil works was completed.

By 1978 all machinery and equipment were on site and contract for the erection and installation of plant and machinery was awarded to Taymech Nigeria Limited. Taymech Nigeria Limited, unlike the civil contractors had initial problems of mobilizing their personnel and equipment. They had problems in recruiting skilled and supervisory staff and some erection equipment were below the standard required for the effective carrying out of work on a large and sophisticated factory like the Yandev Cement Factory. For example, only 21% of mechanical and 34% of electrical erection was achieved instead of 50% by the end of 1978.

This progress was appalling and Benue Cement Company Engineering staff were deployed to help Taymech Nigeria Limited in the erection of the factory in view of the pressure from the Federal Government that the factory must be completed and commissioned by the end of 1979. The management of Benue Cement Company in agreement with Taymech Nigeria Limited, appointed a sub-contractor – Soimi Nigeria Limited – towards the end of 1979 to speed up erection to meet up the dateline. Despite the appointment of a sub-contractor and the mobilizing of Benue Cement Company Engineering staff to complete the erection, commissioning was not possible until the 15th of August, 1980 when the first cement rolled out of the factory.

Technical and Management Agreement

The Technical Agreement signed between the Federal Ministry of Commerce and Industry and Cementia Holding AG, of Zurich, Switzerland in 1975 was based on some of the following, that –

- (i) The Federal Government of Nigeria is desirous of establishing a Cement Works at Yandev with a production capacity of 900,000 tones per annum, has requested Cementia Holding AG, a company that possesses extensive experience in the manufacture of cement and in the construction of cement works and also provides consulting engineering and management services to cement industries as Technical Partners and Cementia has agreed.
- (ii) Immediately on signing the Agreement, the Federal Government and Cementia Holding AG shall establish and incorporate a company and upon such incorporation all rights and obligations as they related to the company shall ipso facto be vested in the company.
- (iii) The scope of the Project shall include:

Pre-investment studies on the technical and economic aspects of the project including but not limited to raw material deposits, production costs, prices, transport costs and supply of electric power and water to the factory.

All necessary design instructions, drawings, specifications, labour, materials and other items and services as required to procure, fabricate, erect and install ready for use of operation, all plant and equipment to provide the facilities and processes for the cement works and supervise.
- (iv) Apart from other services, which include the engagement of specialist advisers and the recruitment of suitably qualified personnel for the project, Cementia will ensure that the suppliers of machinery equipment and all auxiliary facilities will guarantee the production specified by Cementia, so as to allow that the complete works shall be capable of producing under normal running conditions a daily output of twice 1,450 tones of clinker cement in accordance with British Standard (BS 12).

Incorporation

In fulfilment of the Management/Technical Agreement and in accordance with the Companies Act of 1968, Benue Cement Company Plc was registered to carry out the business of manufacturers of and dealers and workers in cement, lime, plasters, whiting, clay, gravel, sand, artificial stone, quarrying/quarry owners, etc under the Certificate of Incorporation No. 15,575 dated the 15th of July, 1975. The company made history when in July 1980 one of its two production lines was commissioned and on August 15, 1980, the first bag of its highly needed Lion Brand of Portland Cement left the factory into the Nigerian market. It was officially opened on the 18th of February 1981 by the former President of the Federal Republic of Nigeria, Alhaji Usman Shehu Shagari.

The company's staff strength was put at 1,236 out of which only 326 are senior staff and 910 are junior staff. All raw materials required by the company were locally sourced, with the exception of one item which was imported and this was less than 40% of the total inputs. That

was, limestone, sand and clay were locally sourced raw materials, while only gypsum was imported. According to Igba (1992:27) the Federal Government of Nigeria in July 1988 promulgated the privatization and commercialization Decree No. 252 of 1988 as a legal framework for the implementation of its decision to privatize some of the enterprises in order to pave way for a new horizon of performance improvement, viability and overall efficiency. In pursuant of the decree's objective, the shares of the enterprises to be privatized were offered for sale by means of public offers through the Nigerian Stock Exchange, in 1989. Among those that have already achieved appreciable level of success in the sector after being fully privatized was the Benue Cement Company Plc.

As at the date of commencement of the privatization exercise, the company had a staff strength of 1,400 with a share capital of 1,000,000,000 at N1.00 each. Operating at full capacity, the company was making an after tax profit of N61 million yearly despite its indebtedness. As at 6th August, 1990, the company had an outstanding indebtedness of N56,331,270 to the Federal and N5 million to the Federal Capital Development Authority (p.29). The Federal Government of Nigeria decided to convert the indebtedness due to her as mentioned above to five year debenture loan. The gesture arose from the Federal Government of Nigeria's determination to encourage the restructuring exercise, and to ensure a good reception for the company, in the stock exchange market since it was a major shareholder.

The company's shares just before the privatization exercise commenced were mainly in Federal Government control with 53.91% and all others had 46.09%. After privatization a greater part of the Federal Government's shareholding were transferred to the Nigerian public. The company was offered for sale in accordance with the Federal Government's programme of privatization and commercialization as set out in Decree No. 25 of 1988. Under normal circumstances, a company to be privatized was expected to undergo the necessary restructuring to give it a good reception in the stock market. The restructuring is done through the engagement of the services of consultants whose work entails the diagnosing all the problems and necessary schemes of privatization.

The consultants will then submit their final report to a subcommittees for appropriate action, to get the enterprise ready for the stock exchange market. In accordance with the foregoing, the Benue Cement Company Plc was offered for sale on the 20th of August 1990. The offer lasted about three week and closed on the 14th September 1990, at the end allotment was made, which resulted into the transfer of the Federal Government's share to private hands. (p.31)

Shareholding Ownership and Control

The funding of Benue Cement Company Plc was through equity shares, debentures and loans. The initial shareholders were the Federal Government, Benue State Government, Plateau Investment Company, New Nigeria Development Company, Nigeria Bank for Commerce and Industry and Cementia Holding of Switzerland. The initial Share Capital of the company was N47 million which was later increased to 100 million in 1981 by the creation of additional 53 million ordinary shares of N1.00 each, part of which was issued by the conversion of N47.5 million being part of the existing debentures into ordinary shares. Before privatization and commercialization of July 1988 the company was jointly owned by the following shareholders who were agents of the Federal and State Governments.

(i)	Federal Government of Nigeria	-	39% or N39m
(ii)	Benue State Government	-	21% or N21m
(iii)	Plateau State Government	-	14% or N14m
(iv)	Cementia Holding AG, Zurich	-	11% or N11m
(v)	Nigerian Bank for Commerce and Industry	-	7% or N7m
(vi)	New Nigeria Development Company Ltd.	-	5% or N5m
(vii)	Nigerian Industrial Development Bank Ltd.	-	<u>3% or N3m</u>
			<u>100% N100m</u>

Benue Cement Company Plc with a total of over 35,000 shareholders made phenomenal policy of privatization of companies, hitherto virtually controlled by the Government. Following the privatization exercise, the Federal Government equity holding in the company dropped from 39% to 30% and the Nigerian public now have about 23% holding in the company. Benue Cement Company Plc therefore stood as one of the four members of Cement Manufacturers Association of Nigeria (CMAN) to be publicly quoted on the stock exchange (BCC Diary 1996). By 1990 the Federal Government privatized part of its shareholding coupled with capital restructuring of the company.

Ownership

The shareholding, ownership and control from the Annual Report of Accounts of BCC Plc. (2000, P.10) states that “according to the Register of Members, the following is a representations of the shareholding of the company as at 31st December 2000.

	Shareholder	Shareholding (No. of Shares)	Percent
1.	FGN	146,191,141	29.53
2.	BNSG	102,620,630	23.74
3.	NBCI	26,435,224	5.34
4.	PLSG	17,779,251	3.60
5.	NASG	09,383,494	1.90
6.	Cementia AG	19,800,000	4.00
7.	BCC Plc Staff	07,773,819	1.32
8.	FCDA	08,067,147	4.35
9.	NIDB	07,522,012	1.52
10.	NNDC	09,331,500	1.89
11.	Nigeria Public	<u>140,095,782</u>	<u>22.81</u>
		<u>495,000,000</u>	<u>100.00</u>

Mission Statement

To examine the mission statement of a company, Pearce & Robinson (2003, p. 12) said it is the unique purpose that sets it apart from other companies of its type and identifies the scope of its operations. It describes the company's product, market, and technological areas of emphasis in a way that reflects the values and priorities of the strategic decision makers (i.e. management). On the other hand, in terms of long term objectives, the results that an organization seeks over a multiyear period are its long-term objectives. Such objectives typically involve some or all of the following objectives: profitability, return on investment, competitive position, technological leadership, productivity, employee relations, public responsibility and employee development. (ibid, p.13). Some of these long term objectives such as profitability, return on investment, competitive composition and technological leadership etc., were envisaged constraints by BCC Plc.

Basic company missions should be stated both in product and market terms. Deciding upon a basic mission is a fundamental step in planning. Boseman and Phatax (1989:7) stated that, "all organizations' have mission". They explained further that, "the mission is the reason for the organization's existence. It answers the question what business are we in?" Defining the mission is very important, because it sets the boundaries for its operations and prevents the organization from overlooking any related fields of endeavor.

It is the ultimate guiding force that governs where the firm's critical resources be written in very broad or very narrow terms. How it is written has a profound effect on the future development of the organization. A narrow definition of a mission statement limits the activities of the organization and prevents it from entering into new avenues of opportunities for growth and expansion. In the light of the above theoretical framework the foregoing is Benue Cement Company Plc mission statement:

To produce and market high quality Lion Brand Portland Cement, to attain the rated capacity of 900,000 tones through effective and efficient application and harmonisation of men, money, machines, materials and other resources" BCC Plc (1996) Calender.

The question is to what extent was the company's management team able to achieve the above mission and objectives? The study examines the company's operations over the years to determine if the management was able to achieve the operational objectives of the company before its takeover by Dangote Cement Plc. Conceptually, we begin with operational function in an organization.

All business organizations are concerned with how they will survive and prosper in the future. In pursuant of these objectives, an organization's operation's function is concerned with getting things done, and producing goods and services for customers. The objective of the operations function is to produce the goods and services required by customers whilst managing resources as efficiently as possible. An organization's operations are strategically important precisely because most organizational activity composes the day to day activities within the operations function. It is the myriad of daily actions of operations function. When considered in their totality that constitute the organization's long term strategic direction. Thus, the relationship between an organization's strategy and its operations is a key determinant of its ability to achieve long-term success and even survival.

The way in which an organization secures, deploys and utilizes its resources which determine the extent to which it can successfully pursue specific performance objective. In this direction Slack et al (2004) argued that, there are five operational performance objectives: first, cost i.e. the ability to produce at low cost. This was a constraint faced by BCC Plc in its operations. Second, quality i.e. the ability to produce in accordance with specifications and without error. In the case of BCC Plc, in attempts to achieve this objective, the company incurred high cost of production and distribution. Third, speed, i.e. the ability to do things quickly in response to customer demand and thereby offer short lead time between when a customer orders a product or service and when they receive it. This is also the area the company found very difficult to manage as it grapples with incessant power supply to operate the plants and financial constraints, etc. made it difficult for the management to respond timely to customers demand for their product, which led to their shift in preference to competing cement brands.

Fourth, dependability, i.e. the ability to deliver products and services in accordance with promises made to customers (e.g. in quotation or other published information). The highlighted problems above often made this factor difficult for the company's operations, Fifth, Flexibility, i.e. the ability to change operations. In this direction, Slacks, et al (ibid) explained that flexibility can comprise four aspects. First the ability to change the volume of production, (here we shall examine the company's production capacity). Second the ability to change the time taken to produce. Third, ability to change the mix of different products or services produced. Fourth, the ability to innovate, introduce new products and services. They noted that excelling at one or more of these operations performance objectives can enable organization to pursue a business strategy based on corresponding competitive factor. The company's operations will be examined within these viewpoints. Let's examine briefly the theory of constraint as its relate to the study.

Theory of constraints is a methodology for identifying the most important limiting factor (i.e. constraint) that stands in the way of achieving a goal and then systematically improving that constraint until it is no longer the limiting factor. In manufacturing it, is often referred to as bottleneck. Theory of constraints according to Institute of Management Accountants USA (1999) is a concept that emphasizes the role of constraints in limiting the performance of an organization. TOC drives managers to attack constraint in order to reach their primary goal to make money. That is why TOC focuses on management's attention on the factors that impede the system performance. Theory of constraints represents a tremendous change in management focus and direction. It is a transition shaped by several fundamental concepts that can be used to build a profitable foundation for an organization.

The concepts include, a new measuring system; a process of continuous improvement; a fundamental decision process focuses on Global rather than Local issues; a new method of analyzing the relationships between resources and processes and determining where to focus the Company's efforts; new methods for analyzing policy problems to arrive at simpler solution; and new management approach for providing strategic and tactical direction for the organization. IMA states that the fundamental thesis of TOC is that, constraints establish the limits of performance for any system and added that most organizations contain only a few core constraints. IMA stated also that advocates of TOC suggests that management should focus on effectively managing the capacity of these constraints if they are to improve the performance of their organization. IMA (ibid) listed behavioural, managerial, capacity, market and logistics. IMA described behavioural constraints as an action or reaction to the environment and specific situations as they are encountered; issues such as training, education, measurement

systems, experiences, attitudes and mental disposition all affects the behaviour of the people involved in production in an organization. Therefore, whenever behaviour is in conflict with reality and results in a negative impact on Global measures of organization, it is said to be behavioural constraints. This has collaboration with the attitude of employees of the company under review as it relate with their fulfilment of personal interest on the job against that of the company as you read further.

However, Bailey (2014) stated typical constraints to include time, capacity, materials, human resources, capital resources and financial resources. He remarked that the theory of constraints looks at the entire supply chain and synchronizes the chain to achieve ultimate performance. The theory is based on two assumptions. First, that, every organization has a set of process working together to achieve a common goal, second, that, every process has a (single) constraint that limit it from higher performance. On the contrary, the authors argue that more than six constraints were identified in the survey conducted on the operational constraints that affected effective operations of BCC Plc as examined in this study.

In implementing the theory of constraints, Bailey (ibid) listed five steps. The first step seeks to identify the bottleneck (constraint). Under this guideline, managers are advised to examine their production plan as a whole and determine which resource is preventing the management from achieving better performance. On the contrary Nieminen (2014) reasoned that not only in the first instance should managers analyze and define existing bottleneck, they should also rank other bottlenecks according to their importance i.e their effects on the 'goal' and seek to increase the difficulty for managers of BCC Plc not to achieve these throughput while reducing operational expenses and inventory. The question is why was it difficult for the management and managers of BCC PLC not to achieve these?

In addition, the management should inspect old machines, untrained employees, long set-up times, and as Goldratt stated an entire plant's throughput (productivity) is limited to the bottleneck's productivity. Second, step two seeks to exploits the bottlenecks in such a manner that all the process efforts should focused primarily on the constraints to maximize throughput (productivity) of the organization. Third, step three aims at subordinating else to the bottleneck(s). In this direction; the theory suggests that other activities must be subordinated to the actions taken to fix the bottleneck at hand. Fourth, step four seeks to evaluate the bottleneck(s) with particular reference to management decision as to whether to purchase additional capacity (in terms of new machines or better trained employees) to achieve maximum result in the company's productivity.

Finally, step five is aimed at evaluating whether solving the current bottleneck(s) created other bottleneck as Bairley (ibid) warned managers not to allow inertia. In this direction, the production plant has to be monitored carefully as to whether other constraints new ones exist and to monitor the progress of old constraints. As part of the constraints survey, Dangote Cement Report (2013) stated that cement market was constrained in the first quarter by Gas disruption. This suggests that this constraint persists in the cement industry in Nigeria.

Strategy from strategic marketing perspective is fundamentally about two things, first the management decision as to where you want your business to go and to deciding how to get there. Indeed a strategic plan is often compared to planning a journey, you know where you want to go all from where you are starting, how you travel depend on the resources and time scales you have in which to complete the journey, This is what business is heading for (targets

goals), where it is in currently is and what resources intends to use, at what time, with what expected result to get there.

In this direction, a strategy is defined by Johnson et al (2005) as the direction and scope of an organization over long-term, which achieves advantages in a changing environment through its configuration of resources with the aim of fulfilling stakeholder expectations. They explained further that, in its determination of the Long-term direction of an organization, strategy involves the interplay of three elements: the organization's external environment, its resources and its objectives (in meeting the expectations of its stakeholders. these are also other areas of focus in this study as you read further.

Capacity utilization is a measure of the extent to which the productive capacity of a business is being used. It can be defined as the percentage of total capacity that is actually being achieved in a given period. Capacity utilization rate measures the proportion of potential economic output that is actually realizes. Displayed as percentage, capacity utilization series gives insight into the overall slack that is in the economy or firm at a given point in time. In basic terms, utilization it is a measure of the actual revenue earned by assets against the potential revenue they could have earned. On capacity constraints IMA (1999) stated that capacity constraints exist any time the demand place on resources exceeds its available capacity. Capacity constraints include machines, or people and can restrict the creation of throughput. Economic capacity is defined as the amount a company or an economy can produce using its current equipment, workers, capital and other resources at full tilt. In simple terms it is the financial limit of a business, economy or person.

Pan African capital industry report on Nigerian cement industry (2011) stated that cement manufacturing requires high cost of fuel from the first stage of production till the last stage. Each tone of cement produced requires 60 to 130 kilogrammes of fuel or oil or its equivalent depending on the cement variety and processed used and about 105 kwh of electricity may be used which also means high cost. Erratic Power Supply was also another constraints. According to Sambo (2008) electricity plays a very important role in the socio-economic and technological development of every nation. Unfortunately, the electricity demand in Nigeria far outstrips the supply and supply is epileptic in nature. The country is therefore faced with acute electricity problems, which is hindering development notwithstanding the availability of vast internal resources in the country.

For over twenty-years, prior to 1999, the power sector did not witness substantial investment in infrastructural development. During the period, new plants were not constructed and existing ones were not properly maintained this development led to or contributed to erratic power supply – bringing the power sector to a deplorable state. In 2001, generation went down from the initial installed capacity of about 5,600mw to in average of about 1,750mw as compared to a load demand of 6,000mw. Also, only nineteen (19) out of the seventy-nine (79) installed generating units were in operation (Ibid)

High Prices of Petroleum Products is also another constraints. Empirical evidence suggest that this problem persists as Edwin, D. V. G (2013) the Managing Director and Chief Executive of Dangote Cement Plc. stated that nevertheless, 2013 was a challenging quarter in which the problems with the national gas infrastructure affected our ability to supply the growing demand of cement across Nigeria. DANGCEM's Gboko Plant, according to Obilomo, (2013) is primarily run on the more expensive LPFO, hence it is riddled with increased costs resulting in lower margins.

Re-capitalization is a type of corporate reorganization involving substantial change in a company's capital structure. Or it can be defined as the act of changing a company's capital structure, for example a highly leverage company (are that is largely financed with debts) may repay most of its debts. According to Meristem Equity Report (2007) BCC PLC in its initial years of operation, the company performed favorably with high probability, however, the company succumbed to disenabling factors such as rising fuel cost, erratic power supply and competitively priced imported cement. All these coupled with the high cost of maintaining its plant led to steady decline in the company's fortunes, till the turn-around years of 2005.

In the area of High Operating and Distribution Cost; Dangote Cement Plc (2013) report on operations highlight stated that, the plants were affected by gas disruptions and shortages of back-up LPFO which affected plants operations. BCC Plc (Gboko) Plant experienced some shortages of LPFO as supplies were directed to the larger plants, ... the change in output mix in the First Quarter of 2013, which saw higher proportion of sales from LPFO – fueled Gboko Plant, also led to increase in production cost. Distribution costs increased because of the higher level of direct-to-customer deliveries and higher depreciation associated with the larger fleet needed to support them (ibid). This is a highlight of a recent phenomenon in BCC Gboko Plant which also suggest that some of the constraints persists currently.

METHODOLOGY

The research method adopted for the study is a historical, analytical and descriptive analysis. Primary and secondary sources of data were used to collect data for the study. The units of analysis for the study are Benue Cement Company Plc, its plant operations, employees performance, perceptions of cement dealers, distributors, retailers and the opinions of the end-users of Lion Brand Portland cement over competing brands. Data collection method used was a survey interview conducted with the use of questionnaire, as well as secondary sources via Literature and Empirical Reviews. The population designed for the study was 308 participants made up of top, middle and low level Managers, cement distributors, retailers and cement end-users purposely selected for the study. They were purposely selected for the study because they were considered more experienced, informed, and knowledgeable about the company's operations, to provide relevant answers to the questions provided in the questionnaire for the study. The towns selected for the study were Tse-Kucha where the plant located, Gboko, and Makurdi. A sample size of 169, (51.33%) of the population was designed for the study.

Purposeful sampling was designed for selected participants for the study. Employees selected for the study were served with questionnaire in their offices and they were advised to answer the questions in the questionnaire during brake periods within one hour. Cement dealers, distributors, and retailers were served with the questionnaire within BCC Plc Customer's Hall within the plant premises. Data analysis techniques use are Frequency distribution and percentages to describe participant's responses to the questions for the study. In addition, frequency and percentages was used to measure the responses of respondents to the question on operational constraints affecting the company's operations.

The instrument used for this study was a five point Likert scale structured questionnaire. The questionnaire was structured in two segments, one for employees of BCC Plc and the second for distributors, retailers, and end-users' of cement. The questionnaire was arranged into two sections A and B with 25 questions in both sections. Section A for each segment contained

Personal Data information while section B comprised five point Likert scale questions directed at providing relevant responses to the research questions to achieve the objective for the study.

Research Objective

The objective of this research to investigate to determine operational constraints that affected BCC Plc operations in achieving its business mission and objectives.

Research Question: *What constraints affected BCC Plc's operational performance in achieving strategic business mission and objectives?*

Discussion of Result

In a field research survey conducted by the Authors, results of processed data from the survey shows that there were 308 participants for the study made up of top, middle and lower level employees, cement distributors, retailers and cement end-users. Data collected from the respondents, provided the following results as presented in the tables and figure below indicates that:

The biographical data generated from field survey conducted as presented according to age, level of education, sex, marital status, years of service and job status categories is presented below with analysis in frequencies and percentages.

The data generated from field survey shows that, 77 respondents representing 25% of the population were between the ages of 20-35. In addition, there were 176 respondents constituting 57% of the population were between the ages of 36-50 years old. This segment of the company's staff strength could be regarded as a fairly active segment of the employees. There were 55 respondents representing 18% of the population were those within the age of 51-61 years old. This segment constitutes employees who could be regarded as less active segment of the staff population because they are approaching retirement age. Moreover, some of them are likely to go on voluntary retirement before the official retirement period (see Table 1.3, appendix).

Table 1.3 on level of education shows that no primary and secondary school level category of employees participated in the responses. There were 92 respondents at post-secondary school level representing 30% of the population. Also, there were 111 respondents representing 36% of the sample for Graduate level employees. In addition, there are 19 respondents representing 6% and 86 respondents representing 28% of the population were employees with Post-Graduate Diploma qualifications. The respondents' level of education has direct relationship with their ability to understand the questions designed in the questionnaire for this research investigations. Thus, their ability to understand the questions in the questionnaire has direct implications on the quality of their responses and the results of the survey conducted. In addition, another important factor is the fact that table 1.3 [i.e from item 4 to 6] shows that 60% of the population are highly qualified employees in the company. It is therefore expected that they should be able to execute job tasks more effectively and efficiently with or without minimum supervision.

Table 1.3 on sex of participants, shows that 203 respondents representing 66% of the population are males, while 105 representing 24% of the population are females. Thus, the above data shows that are 98 men more than women in the company, who participated in the survey

conducted. In Nigerian context, it has become traditional to find more men than women on the job in our public and private sector. However, increased level of education for females could change the trend. Comparatively, men could be said to be more stable on the job than women especially those that are married. Thus, married women are known to have more family responsibilities than men, because of nursing the children and other domestic responsibilities. This usually affects their stability on the job and can negatively affect the operational performance and their productivity as a result of frequent absenteeism to attend to one family problem or the other, at the detriment of their assigned responsibilities on the job. This may account for this disparity in the ratio of men to women in this survey conducted.

Processed data results on marital status of respondents as presented in table 1.3 shows that 225 respondents representing 73% of the population are married. While only 83 respondents representing 27% are single, there were no widow or divorced respondents.

The married segment of the respondents are regarded as very responsible segments of the company's employees. They are considered to be more likely to take their job serious. The reasons attribute to this is because married employees are usually more inclined to comply with rules and regulations of their organization to ensure their job stability and security. Thus, they are usually more careful in the discharge of their assigned job by avoiding sharp practices that may affect their job stability.

Table 1.3 on respondents' Years of Service indicates that 49 respondents representing 16% of the population are those who served the company between 1-5 years. There were 55 respondents representing 18% of the sample for those who served the company between 6-10 years. In addition, those who have served between 11-15 years were 71 representing 23% of the population. There were 77 respondents representing 25% who have served between 16 – 20 years. Furthermore, 55 respondents representing 18% served between 21-35 years.

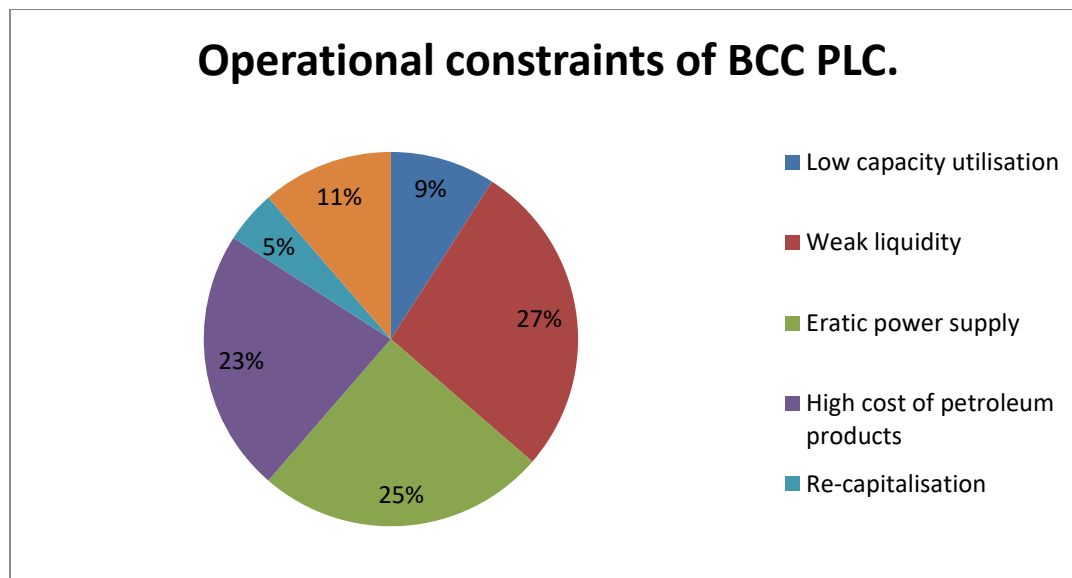
The implication of the above data presented is that: this is a valuable segment of the population that can be used as a yardstick for measuring the validity of information drawn from this category of respondents. Thus, the period of five years and above in service in an organization is significant to acquire adequate skills and experience on the job. This segment of the population is therefore considered relevant for providing useful information on the company's operations in terms of its success, problems, and prospects. Consequently, the success and failure of the company therefore depends to a large extent, on the quality of its employees.

Table 1.3 in appendix is presented on respondents by Job Status. The data shows that 55 respondents representing 18% were within the top management category and 142 respondents representing 46% are within the middle management category. The first two categories of respondents are within policy making and implementation in the organizational hierarchy. Thus, the opinions drawn from this category of respondents for this study are considered highly valuable as a yardstick for measuring the company's performance over the years. Their ranking in terms of status has direct and indirect implications on the opinions they hold. The decision making power and ability to influence management decision on policy issues such as staff welfare and the company's operational policies and strategies is of significance.

Results of processed data on the field survey conducted on the research question; what constraints affected BCC Plc's operational performance in achieving strategic business mission and objectives as presented below in Table 1.1 and Fig. 1.1 indicates that

Table 1.2. Operational Constraints of BCC PLC.

Operational Constraints	Population	%
Low capacity utilization	28	9.1
Weak liquidity	84	27.3
Erratic power supply	77	25.0
High cost of petroleum products	70	22.7
Re-capitalization	14	4.5
High operating and distribution cost	35	11.4
Total	308	100.0

**Figure 1.1 Pie chart illustrating operational constraints of BCC Plc.**

28 respondents, representing 9.1% of the population listed low capacity utilization; 84 respondents representing 27.3% of population listed weak liquidity; 77 respondents representing 25.0% of population listed erratic public power supply, 70 respondent representing 22.7% of population listed high prices of petroleum products; 14 respondents representing 4.5% of population listed Re-capitalization problems and 35 respondents representing 11.4% of population listed high operating and distribution cost.

Theoretical, conceptual and empirical review evidence suggests that; In developing a strategic vision and business mission as a framework to analyze the case of BCC Plc, Thompson & Strickland, (1996) stated that: “A mission statement defines a company’s business and provide a clear view of what the company is trying to accomplish for its customers”. The company’s strategic business mission was “*To produce and market high quality Lion Brand Portland cement and to attain a rated production capacity of 500,000 tones through effective and efficient application and harmonization of men, money, machines and other resources*”.

Reasoning from the above viewpoints, Thompson & Strickland, (Ibid) added that managers also have to think strategically about where they are trying to take the company...; and that by developing and communicating a business mission and strategic vision, management infuses

the workforce with a sense of purpose and persuasive rationale for the company's future direction.

An analysis of the situation in BCC Plc for twenty-two years of its operation from the researchers' investigations suggests that, the management of the company partly lost effective operational control and direction for the company, as the company grapples with several operational constraints problems such as: fuel crises, erratic power supply, high interest rate, and high cost of foreign exchange needed to procure the much needed spare parts to effectively run the plant. The above constraints had also been well stated in the 1997 Annual Report and Accounts of the company. Consequently, for instance, the company recorded an after tax loss of N373,678 million in 1998 compared to a profit after tax of N72.48 million in 1997. BCC Plc (1996) Annual Report and Accounts.

In addition, in a similar survey conducted by Agema (202) on how motivated are employees to achieve the company's strategic business mission and objectives to give the company a sense of direction as reasoned by Thompson and Strickland (ibid). The respondents attributed some reasons to: low motivation and commitment to the company's partial withdrawal of some of the company's motivation schemes. Also, at the time of conducting the research, the researcher observed what can be described as "what broke the camel's back" was low staff motivation and commitment as employees' continued to work without pay, as the company owed staff salaries up to eight months". This negative trend is likely to give room for employees unethical business practices at all levels as they look for ways to meet their basic necessities of life for themselves and families.

Consequently, with such negative trends in the company's operational performance, coupled with other constraints as stated earlier, it can be deduced as reasoned by Thompson & Strickland (ibid) that, the management was not able to infuse the workforce with a sense of purpose and persuasive rationale that will have given the company a good sense of direction to meet its strategic business objectives.

One other most turbulent constraint, which also contributed to this development, includes the long stalemate between the Federal and State Government over the privatization problem of the company for many years. The Managing Director and Chief Executive of Benue Cement Company Plc (2000) noted that, this development denied the company of essential inputs such as recapitalization, technical support and the company's inability to procure essential worn-out machine parts. Therefore, the researchers no doubt concluded that this trend particularly retarded the company's Management effort to transform its technology to meet subsequent development in the industry as Cendona and Ray (2009) said for a mission to succeed, it demand a realistic approach based on urgency of a thorough knowledge of the market, people's abilities and the available technology to meet current and future challenges in the target market.

These operational problems had for many years sets back the wheel of progress in the company's management efforts to achieve its strategic business mission and objective. The chairmen Board of Directors and the Managing Directors of the Company over the years of the company's operations continued to reinstate some of the persistent problems of the company as presented in the Company's Annual Report and Account over the years. With this background, the researchers concluded that no sense of urgency was used by the management team of the company to solve these problems as the operational constraints persisted over the years of the company's operations.

Furthermore, for a company's operations strategies to achieve its mission and objectives, Thompson (1998) reasoned that: "Operations and marketing are directed to satisfy consumers' needs. Operations relate to the direct costs of running the business labour and materials used in producing the product or creating the service. These costs must be controlled as Thompson and Strickland (2001, p 258) prescribed a stronger focus on cost reduction for managers of Firms' with a stiffening price competition that gives Firms extra incentives to drive down unit costs. Therefore, company cost-reduction initiatives can cover pushing suppliers for better prices, implementing tighter supply chain management practices, cutting low-value activities out of value chain, developing more economical product designs, reengineering internal processes using e-commerce technology and shifting to more economical distribution arrangements.

The Company faced difficult financial, economic and environmental threats as the Managing Director/Chief Executive of Benue Cement Company Plc (1995) in a related development noted that; both interest rates and high cost of foreign exchange needed to procure the much needed spares to run the plants made the running of the company difficult and expensive. Therefore, the researchers reasoned that, moreover, the company's operating and distribution cost and expenses continued to erode away its efforts, thereby making it difficult for the company to make profit for some years of its operations. The company's (2000, 1999) published Annual Reports and Accounts suggested that the negative trend in BCC Plc was contrary to what Thompson (1998) suggests. In addition, Thompson (ibid) stated further that: "Operations Management is concerned with the design, planning and control of the production function, and the decisions, which relate to the use of materials, people and machines. It is also concerned with having the right product or service ready at the right time, produced in the right quality, but also at the right cost to ensure that profits are earned.

The company also had the problem of low capacity utilization as its (1999:9) Annual Report and Accounts stated an average industrial capacity utilization of about 30% compared to 33% in 1998. Consequently, this development often led to operational constraints. In a system manner Thompson (ibid) stated that: "There is an important link between marketing and operations, which cannot be ignored" as consumers' needs must be understood if quality and timing is to be right, and that cost should be added only where necessary and where differentiation is important to the market, manufacturing processes and technology must also be managed to achieve control of costs and differentiation. The company's increasing operation and distribution costs also confirmed the continued negative contribution to profit. These operational constraints also stated the company's. Annual Report & Account 1996, 1997, 1999).

Most importantly, achieving profitability is dependent on the successful application of the marketing strategies by the marketing department. Moreover, the company's marketing operations was not profitable for more than four years for instance e.g. BCC Plc (2000) Annual Reports and Accounts reported trading losses from ₦943,281,000 in 1999 to ₦528,154,000 in 2000, from ₦72,428,000 in 1997 to ₦373,578,000 in 1988 due largely to some of the operational constraints as buttressed by the pie chart provided in this survey. Furthermore, the company's (2000) Annual Reports and Accounts also confirms one of the major problems militating against the company's performance towards achievement of its strategic business mission and objective, to the fire incident of September 18, 2000, which completely destroyed the Rotary Kiln II Basement and electrical components of Rotary Kiln I, resulting in the Shutdown of the whole plant in the last Quarter of 2000.

Other problems stated from above source included: “inability of the company to meet its production capacity through low capacity utilization, as it affects production output, no growth and profitability; weak liquidity position of the company which made it difficult to source spare parts and other vital production input; erratic power supply from public source; shortage and higher prices of petroleum product; and the company’s inability to recapitalize”, all these operations constraints made effective and efficient management of Benue Cement Company Plc’s operations difficult for the management to take BCC Plc to its desired destination in the long run over other competitors. This consequently led to the company’s takeover by its competitor Dangote Cement Plc.

RESULTS/FINDINGS

1. The company experienced low capacity utilization.
2. The company suffered from weak liquidity.
3. There was erratic public power supply.
4. The company experienced higher prices of petroleum products.
5. The company suffered from re-capitalization problems
6. Benue Cement Company Plc suffered from high operating and distribution cost.
7. There was partial shift in customer’s patronage of Lion Brand Portland Cement to Dangote and Rock Cement due to its scarcity, poor packaging and the company’s inability to meet customers demand due to low capacity utilization and incessant plant short down.
8. The company operated production and product oriented strategies instead of marketing. The company paid more attention on attainment of production capacity oriented which it couldn’t attain, without adequate attention to customers, the market and competitor’s strategies.
9. There was low motivation and commitment of employees towards support to achieving the company’s strategic business objectives, as employees were owed salaries for many months.
10. The company’s management exhibited lack of “sense of urgency” in managing the plant as well as opportunities and threat in its business environment, which led to its closure and take-over by Dangote Cement Plc as its subsidiary plant.

RECOMMENDATIONS/IMPLICATION TO RESEARCH AND PRACTICE

1. The company’s management should adopt strategic management approach, particularly, with the use of sense of urgency in managing production operations of the Company.

2. The Board of Directors and the management of the Company should improve on professional ethics to enhance credibility in the service of employees.
3. The organizational structure of the company should be short and marketing oriented to achieve strategic marketing objectives.
4. Due to high cost of distribution the company should acquire its own fleet of trucks to transport its product to depots and customers at reduce costs.
5. Customer service unit should be introduced in the marketing department and manned with skilled – trained staff in the area of good customer service marketing.
6. All employees of the company should be guided towards achievement of the company mission and objective at the detriment of personal interest.
7. The management of the company should design marketing strategies towards effective managing of opportunities, threats and competition in the target market.
8. Management team should apply theory of constraints in managing the company's operations to achieve profit.

CONCLUSION

The research concludes that from conceptual, theoretical and empirical evidence suggests that, Benue Cement Company Plc Management was not able to achieve its strategic business mission and objectives in the short and long run periods of the Company's operations, due to some operational constraints, which evidently and consequently led to its closure and take-over by Dangote Cement Plc, her competitor in the cement business.

Future Research

There is room for future research into employees motivation to achieve organizational objective particularly in the Cement Industry in Nigeria. There is also this area of Professional Ethics and employees performance to achieve operational objective of Cement Companies in Nigeria.

REFERENCES

- Agema R. J. (2002) Strategies for Effective marketing of locally produced Portland Cement Brands in Nigeria: Case study of Lion brand Portland cement of BCC Plc Gboko 1980 – 2002. (An unpublished MBA Project), Makurdi: Postgraduate School, Benue State University Makurdi. Nigeria.
- Bailey (2014) Theory of constraint, Benue Cements Company's Annual Report & Account 1996, 1997, 1999, 2000. Jos: Trinity Graphic Ltd.
- Cendona & Ray (2009)
- Dangote Cement Report (2013)
- Edwin, D. V. G. (2013) The Managing Director and Chief Executive of Dangote Cement Plc.

- Folashade, Obilomo & Ojoh, Tosin (2013) *Nigerian Cement Sector Report: Emerging Prominence from a Deficit Past*. Cardinal Stone Partners; Equity Research.
<https://www.ratesupermarket.ca/blog/whatis-economiccapacity/2016>
- Institute of Management Accountants USA (1999) *Theory of constraints (TOC) Management system Fundamentals*. USA: Institute of Management Accountants.
- Johnson, S. K. & Whitting, R. (2005) *Exploring Corporate Strategy*. Seventh Edition. Harlow: Prentice Hall.
- Jorma Nieminen (2014)
- Obilomo, Folasade (2013) *Nigerian Cement Sector Report: Emerging Prominence from a Deficit Past*. Cardinal Stone Partners.
- Okigbo, N. (2013) Development of Nigeria Cement Industry. In *International Journal of Innovative Research in Engineering Science*. Vol 8 (2), P.1
- Olayinka et al (2013) In *Energy and Power Engineering* vol. 5, pp 537-550.
- Oluwakiyesi (2011) *Nigerian Cement Sector: Unbundling Potential*. Lagos: Vetiva Capital Management Ltd.
- Pablo Cardona and Carlos Rey (2009) *Management by Mission: How to make the mission a part of management*; Sapin: IESE Business School, University of Navarra. Occasional paper.
- Sambo, A. S. (2008) "Matching Electricity Supply with demand in Nigeria". Paper presented at the National Workshop on the Participation of State Governments on Power Sector, 29th July, 2008. Held at Ladi Kwali Hall Sheraton Hotel and Tower Abuja. In *International Association for Energy Economics, Fourth Quarter*.
- Slack, N & Lewos, M (2002) *Operations Strategy*. Harlow: Pearson Education.
- The Managing Director and Chief Executive of Benue Cement Company Plc (2000)
- Thompson & Strickland, (1996) *Strategic Management Concepts and Cases*. Ninth Edition. Boston: Irwin McGraw – Hill.
- Thompson, J. L. (1993) *Strategic Management Awareness and Change*. Second Edition. London: Chapman & Hall.
- wikipedia.org.utilization 2016
- www.investopedia.com/terms/c/capacityutilizationrate.asp2016.
- www.leanproduction.com/theory-of-constraint.html July 27, 2016.

APPENDIX

Table 1. Categories of Participants

Categories of Participants	Population	%
Top level employees	40	13.0
Middle level employees	30	9.7
Low level employees	38	12.3
Cement Distributors	60	19.5
Cement Retailers	70	22.7
Cement Consumers	70	22.7
Total	308	100.0

Source: Field survey, 2002

Table 2: Demographic Data of Respondents

s/no	Response category	Frequency	%
Age distribution			
1.	Under 20	00	00
2.	20-35	77	25
3.	36-50	176	57
4.	51-61	55	18
5.	Over 65	00	00
	Total	308	100
Level of Education			
1.	Primary School	00	00
2.	Secondary School	00	00
3.	Post Secondary	92	30
4.	B.Sc./ BA Degree	111	36
5.	PGDM	86	28
6.	Masters Degree	19	6
	Total	308	100
Sex			
1.	Male	203	66
2.	Female	105	27
	Total	308	100
Marital status of respondents			
1.	Married	225	73
2.	Single	83	27
3.	Widow	00	00
4.	Divorced	00	00
	Total	308	100
Job Status Distribution			
1.	Top management	55	18
2.	Middle management	142	46
3.	First level supervisor	62	20
4.	Clerical/stenographers	49	16%
	Total	308	100