CONTRIBUTIONS OF CEMENT MANUFACTURING COMPANIES IN NIGERIA

BY

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DECLARATION

I hereby declare that this Project is my work, and has to the best of my knowledge never been published before. All works consulted have been duly acknowledged by way of Footnotes and Bibliography.

.....	.....	.....
NAME OF STUDENT	SIGNATURE	DATE

The above declaration is confirmed.

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NAME OF SUPERVISOR	SIGNATURE	DATE

CERTIFICATION

This Project entitled "Contributions of Cement Manufacturing Companies in Nigeria" by Uhaa, Andrew Terngu meets the regulations governing the award of Degree of Master of Business Administration (MBA) of Ahmadu Bello University, Zaria and is approved for its Contributions to academic knowledge.

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PROJECT SUPERVISOR	SIGNATURE	DATE
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DEDICATION

This Project is dedicated to God the Father and my Lord Jesus Christ for His abundant love, provision and support, and to my parents who endured patiently with me during the work.

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I am most grateful to Mrs. Mary S. Akanet for her relentless efforts in instructing and supervising me throughout the work.

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Uhaa A.T. 1990

ABSTRACT

Cement is an indispensable raw material in the building of a nation, the importance of the cement industry is seen in the role it plays in building and construction, and its contributions to the general economic development of the country.

Although much emphasis is laid by the government on local manufacturing to substitute imports in order to improve the economic situation in Nigeria, Cement Companies which get 95% of their raw materials locally have not been given their deserved attention. This has led to scarcity of cement, with negative developments in the building and construction industry, and the general economic development of the country.

This study examined the activities of the Cement Manufacturing Companies in Nigeria during the period 1984 - 1989, their contributions made so far to the country, the factors which have contributed to the crisis in both building and construction industry and the economy at large and offered recommendations to improve the situation.

The study revealed that aggregate national demand for cement far outstripped domestic production and cement companies operated below their installed capacity (65-75% average). This short coming was due to problems associated with insufficient spare parts, inadequate power supply, lack of trained staff, scarcity of foreign

exchange, obsolete equipments, inadequate working capital, government policies and inefficient distribution channels.

Despite this problems it was found that cement companies contributed in the following ways: Provision of local cement to the building and construction industry, foreign exchange savings to the tune of ₦3,259 billion during the study period. Capital savings for investment in other areas of the economy, employment opportunities for Nigerians and some technological skills have been acquired by indigenes.

It is suggested that the current tariffs on cement inputs be cut down, preferential allocation of cement be eliminated, government should give financial assistance to the companies, efforts should be intensified to find local raw materials and spare parts industry be established in the country to serve cement companies and the rest of the manufacturing sector.

TABLE OF CONTENTS

		(PAGE(S)
	Title Page	i.
	Declaration	ii.
	Certification	iii.
	Acknowledgement	v.
	Abstract	vi-vii.
	Table of Contents	viii.
	List of Tables	ix.
	List of Figures	x.
CHAPTER ONE		
1.0	INTRODUCTION	
1.1	General Introduction	1- 4
1.2	Objectives of Cement Companies	4- 6
1.3	Statement of Problem	6- 7
1.4	The Purpose of Study	7- 8
1.5	Scope of the Study	8- 9
1.6	Limitation	9- 9
1.7	Research Methodology	10
1.8	Definition of Terms	10-12
1.9	The Plan of the Project	12-13
	Foot Notes	14
CHAPTER TWO		
2.0	HISTORICAL BACKGROUND AND LITERATURE REVIEW	
2.1	Historical Background	15-18
2.2	Literature Review	18-26
	Foot Notes	27
CHAPTER THREE		
3.0	THE STRUCTURE, ORGANISATION AND MANAGEMENT OF THE CEMENT COMPANIES IN NIGERIA	
3.1	Ownership Structure	28- 31
3.2	Installed Capacity	31- 32
3.3	Cement Production Process...	32- 37
3.4	Organization and Management	37- 53
	Foot Notes	54

CHAPTER FOUR

4.0 PRESENTATION AND ANALYSIS OF DATA

4.1 Capacity Utilization 55-60
4.2 Demand and Supply 61-64
4.3 Marketing and Distribution,... 64-67
4.4 Production Costs and Profitability 67-71

Foot Notes 72

CHAPTER FIVE

5.0 CONTRIBUTIONS OF CEMENT COMPANIES

5.1 Building and Construction 73-75
5.2 Economy 75-80
5.3 Social Responsibility 80-81
5.4 Transfer of Technology 81-83
5.5 Employment 83
5.6 Training and Development 83-85
5.7 Problems 85-88
5.8 Prospects 88-90

Foot Notes 91

CHAPTER SIX.

6.0 CONCLUSION AND RECOMMENDATION

6.1 Conclusion 92-93
6.2 Recommendations 94-95

Bibliography 96-97

LIST OF TABLES

			Page
Table 3.1	-	Equity Ownership in Nigeria's Cement Companies, May, 1989.	31
Table 3.2	-	Installed Capacities in the Nigerian Cement Industry.	32
Table 4.1	-	Proportion of Installed Capacity Utilised 1984-1989.	55
Table 4.2	-	Companies Market Share	55
Table 4.3	-	Supply and Demand Statistics On Nigerian Cement Industry.	56
Table 4.4	-	Channels of Distribution	57
Table 4.5	-	Cement Companies Ex-Factory Unit price per tonne 1984-1989.	57
Table 4.6	-	Sales Price Movement and Profit per bag 1984 - 1989.	58
Table 4.7	-	Total Cost of Production and Raw Materials in Cement Companies.	58
Table 4.8	-	Profits (losses) of Cement Companies 1984 - 1989.	59
Table 4.9	-	Profit Margin for Nigeria's Cement Companies 1984-1989.	59

LIST OF FIGURES

			Page
Figure	3.1	- WAPCCO Organisational Chart (Headquarters)	38
Figure	3.2	- WAPCCO Organisational Chart (Factory)	39
Figure	3.3	- CCNNL Organisational Chart	42
Figure	3.4	- BCC Organisational Chart	46
Figure	3.5	- Ashaka Cement Organisational Chart.	50

CHAPTER ONE

1.0 I N T R O D U C T I O N

1.1 General Introduction

Cement is a building material produced basically from limestone, gypsum and other additives such as clay, sand and shale. It is used in building of houses (residential and offices), hotels, and in the construction of roads, bridges, dams, airports, sea ports, and other construction works generally carried on in the construction industry.

The importance of the cement industry to Nigeria cannot be overemphasised. The average capacity utilization rates of the cement manufacturing companies have been consistently higher than the overall sectoral average for the manufacturing sector and thus contribute immensely to the Gross National Product of the country.

Nigeria is richly blessed with mineral resources which include petroleum, coal, tin, columbite, natural gas, limestone, lignite, lead and zinc.[1] With these vast resources, Nigeria has a great potential to become one of the most industrialized nations in the world. The cement industry therefore, serves as one of the means of tapping these mineral resources and using them to the benefit of the nation and its citizens.

The recent economic situation has made the country to look inwards to discover and utilise things that we can make ourselves in order to attain social and economic

self reliance. The cement industry sources 95% of its raw materials locally and with more research and development can source all its raw materials locally.

The industry saves the country a lot of foreign exchange through the provision of locally produced cement to the building and construction industry, and also contributes to the training and development of the country's work force in addition to the provision of employment opportunities.

The industry forms the bedrock for building and construction which are necessary for transportation and provision of social amenities to the majority of the country's population who are currently living in the ruler areas.

The cement industry thus, has a vital role to play in the economic growth of the country, especially with the recent emphasis on the diversification of the economy and ruler development.

The soaring prices of building materials particularly cement, have led to the abandonment of or delay in the execution of many construction projects to the detriment of output, growth and employment.

The situation deteriorated to the extent that the Government had to hold a meeting with Cement Manufacturers in December, 1988 and January, 1989 with a view to resolving the problem.

The experience so far is that the execution of numerous public sector projects is stalled by the high prices of building and construction materials especially cement. Considerably affected in this regard are the Ajaokuta Steel Plant, Itakpe Iron Ore Project, various housing and development projects, almost all airports, the Iwopian Paper Mill Project, States' Agricultural and Development Programmes and the building of political offices in all the State and Local Government Headquarters. Specifically, the offices for which the Federal Government earmarked N676.5 million remained uncompleted at the scheduled date of August, 1989 due mainly to costs over-run which resulted from soaring input prices.[2]

The building and construction of the national secretariat of the Manufacturers Association of Nigeria (MAN) could not be completed by 5th of May, 1989 as scheduled. Private sector property development is almost grounded to a halt with adverse repercussion on house rents in cities.

Even with the high prices of cement in the market, it is still not sufficient. Many consumers find it very difficult to obtain cement and distributors have to deposit their money with cement companies for over three months before obtaining their cement allocations.

With such a vital role in nation building, the absence of sufficient cement can hold up key social and economic projects thereby affecting the whole nation in

many aspects. Government therefore, as a matter of necessity have to give greater attention to cement companies to enable them fulfill their quota in the building and construction industry and to the economic development of the nation as a whole.

It is in the light of these that a study was carried out on the activities of Cement Manufacturing Companies in Nigeria for the past five years to find out their role and contributions to the building and construction industry in particular and the country at large, the major problems confronting the companies, their prospects and to give suggestions to improve their performance.

1.2 Objectives of Cement Companies

The objectives of the cement companies in Nigeria are clearly spelt out in the various charters of their establishment. The major objectives among others include the following:

i) Maximum and effective utilization of the abundant raw material (limestone) in the locality.

ii) To boast the supply of cement for the increasing infrastructural projects embarked upon by governments, corporations and individuals.

iii) Provision of gainful employment for Nigerians.

iv) To organise and implement phased training and manpower development programmes for indigenous personnel to the intent that by the end of the initial term of management period the operations of the company would be substantially manned and controlled by indigenous persons.

v) To erect construct, lay down, enlarge alter and maintain roads, railways, trainways, sidings, bridges, reservouirs, water courses, shops, stores, factories, buildings, works, plants and machines, if necessary or convenient for the company's business, and to contribute to or subsidise the erection, construction and maintenance of any of the above.

vi) To open and work upon the lands held by the company or wherin, it shall have acquired any interest or right, any mines quaories or pits, and extract smelt and manufacture or otherwise turn into account, any metals, minerals, stone, coal, earth, or other substances and things whatsoever, or anything capable of being produced therefrom.

vii) To borrow or raise or secure the payment of money for the purposes of or in connection with the company's business in such a manner as the company shall think fit.

viii) To carry out in any part of the world, all or any of the businesses of manufactures of of and dealers and workers in cements, limes, plasters, artificial stones, whiting, clay, gravel, sand, minerals, earth, bricks, tiles, pipes, paints and building materials of all kinds.

ix) To grant pensions, allowances, gratuities and bonuses to directors, officers, ex-officers, employees or ex-employees of the company or the dependants or connections of such persons, to establish and maintain or concur in establishing and maintaining trust funds or schemes (whether contributory or non-contributory) with a view to providing pensions or other benefits for any such persons aforesaid, their dependants or connections and to support or subscribe to any charitable funds or institutions, the support of which may in the opinion of the directors, be calculated directly or indirectly to benefit the company or its employees, and to institute and maintain any club or other establishments or profit-sharing scheme calculated to advance the interests of the company or its officers or employees.

x) To enter into partnership or any joint-purse arrangement or any arrangement for sharing profits, union of interests or cooperation with any company, firm or person carrying on or proposing to carry on any business within the objects of this company, and to acquire and hold, sell, deal or dispose of shares, stock or securities of any such company, and to guarantee the contract or liabilities of, or the payment of the dividend, interest or capital of any shares, stock or securities of and to subsidise or otherwise assist any such company etc.

1.3 Statement of Problem

Cement is an indispensable raw material in the building of a nation. The importance of the cement industry is seen in the role it plays in building and construction,

provision of employment opportunities and its contributions to the general economic development of the country.

Although the government has of recent, laid much emphasis on local manufacturing to substitute imports in order to improve the current economic situation in Nigeria, cement companies have not been given their deserved attention. The result is that, cement companies which get 95% of their raw materials locally are still operating below their installed capacities, scarcity of cement still prevails in the country with its demand far above supply and many of their prospects are still lying untapped.

This is having a serious effect on the country's development. It is hoped that the results of this project will be used by the Government and cement companies to improve their performance.

1.4 The Purpose of Study

The present economic depression in Nigeria has often been traced to mismangement and overdependence of the country on oil. As an effort to solve this problem, the Federal Government has taken positive steps towards diversification of the economy. Prominent among such steps are the Structural Adjustment Programme (SAP), Privatization and Commecialsation, Second-tier Foreign Exchange Market (SFEM), and others. With the cement industry occupying a very important position in the development of the country, it is apparent that an effective and efficient utilization of the Cement

Manufacturing Companies in Nigeria will go a long way in improving the current economic situation.

The purpose of this study therefore, is:

i) To know the size and the role of cement manufacturing companies in the Building nd Construction Industry.

ii) To find out the role that cement manufacturing companies play in the development of the Nation.

iii) To know as to what extent these companies have been able to go in achieving the desired objective of setting them.

iv) To discover the problems that inhibit their effectiveness and efficiency, towards achieving their goals or objectives.

v) To find ways of improving their performance in terms of quality and increase output. When this, is achieved it will further increase their contributions to the development of the Building and Construction Industry as well as creating employment opportunities, training and development and these will lead to a general economic development in Nigeria.

1.5 Scope of the Study

The project attempts to bring out the historical development of the cement industry in Nigeria since independence and the major functions performed by Cement Manufacturing Companies. The study of the activities of the various firms (seven) was concentrated mostly within the last five years; 1984 -1988, and the first quarter of 1989.

This period represented the time which the country depended almost entirely on the indeginous companies for her cement needs for building and construction. Although much of the building and construction work was done during the oil boom period of 1970's to early 1980's, majority of the cement used was imported.

The impact of the local firms was felt more during the period under study. Furthermore, this period represents the time when all the cement firms in the country were in operation.

1.6 Limitation

It is of no doubt that a study like this one needs detailed and accurate information, for an indepth analysis. However, due to certain constraints some of the information, even though obtained are not in detailed.

Firstly there was not enough time available for the research.

Secondly, the high cost of transportation and poor communication means within the country.

Thirdly, the inability to reach some of the people concerned for personal interviews.

Lastly, lack of appropriate facilities for research.

Nevertheless, most of the information contained here is reliable and valid.

1.7 Research Methodology

The information used for this project was obtained through two main sources which are a) primary sources b) secondary sources.

(a) Primary Sources: The only means used here was personal interviews. Interviews were carried out with some of the Managers of Cement Companies where useful information was obtained. Some retailers and consumers of cement were also interviewed as well as dealers and distributors.

(b) Secondary Sources: Most of the data obtained for this project was from secondary sources for the obvious reason that it was easier and more realistic to get valid information from these sources within the time available.

These sources included Central Bank of Nigeria's Publications, Trade Journals, Annual Reports of Cement Companies, Seminar Papers, Speeches by Executives of Cement Companies, Government Publications and Newspapers.

1.8 Definition of Terms

1.8.1 Economic Development

The reduction or elimination of poverty, inequality and unemployment within the context of a growing economy.[3]

1.8.2 Company

An association of individuals, organisation or government coming together for business, trade or commerce. It is usually incorporated under the ordinary company law of a country.

1.8.3 Public Company

This is a business, commercial or economic undertakings especially industrial, agricultural or commercial concerns which are owned (wholly or in part) and are controlled by the State. It can be jointly owned by the State and Private persons as well as joint bodies. Its shares can be sold to any one, the minimum number of members is seven and the minimum number of directors is two.

1.8.4 Private Company

This is a business, commercial or economic undertakings which are privately owned and privately controlled. It restricts the right of transfer of itss shares to its members and limits its members to fifty.

Technology

Technology denotes the sum of knowledge - Scientific, emperical, artistic or in general, experience, skills necessary for manufacturing a product(s) and for establishing an enterprise for this purpose.

Transfer of Technology

Technology flow through embodiment of knowledge in capital equipment and intermediate goods, techniques or process, skilled manpower and through the flow of proprietory and non proprietory information.[5]

1.8.5 Social Responsibility

The intelligence and objective concern for the welfare of society that restrain individuals and corporate behaviour from ultimately destructive activities no matter how immediately profitable and leasts in the direction of positive contribution to human betterment. Variously as the matter may be defined.[6]

1.8.6 Training and Development

Any process by which attitudes, skills and abilities of employees to perform specific jobs are increased. With respect to development it is concerned with the acquisation of managerial skills. Training on the other hand is acquiring basically technical or non managerial skills or knowledge.

1.9 The Plan of the Project

The first Chapter introduced the subject of the study bringing out the problem, purpose, scope, limitation and research methodology. The key terms used in this project are also defined.

Chapter two is a review of background literature and historical development.

Chapter three covers the structure of the Cement Industry in Nigeria, ownership structure, installed capacity, the Cement Production Process, Organisation and Management.

Chapter four presents data and its analysis under the following headings: Capacity Utilization, Demand and Supply, Marketing and Distribution, Production costs and Profitability.

Chapter five brings out the contributions of the Cement Manufacturing Companies in the areas of Building and Construction, the economy, social responsibility, Employment, Training and Development, and their Problems and Prospects.

Chapter six is the Conclusion of the Project and the Recommendations.

FOOT NOTES

1. Lagos Chamber of Commerce and Industry, National Trade Exhibition 18th - 30th September, 1984, Exhibition Catalogue P.7.

2. "Situation Report on the Nigerian Cement Industry", Central Bank of Nigeria (CBN) Economic and Financial Review. Vol. 27 No.3 September 1989 P.75.

3. Micheal P. Todara, Economic For a Developing World. Longman 1982, P.95.

4. G.O. Onosode, Report of the Presidential Commission on Parastatals, P.15.

5. United Nations Industrial Development Organisation Guidelines for The Acquisation of Foreign Technology in Developing Countries (New York: United Nations 1973) P.1.

6. Andrews Kenneth R., The Concept of Corporate Strategy. Honwood Ill. Dow Jones Irwim 1971.

CHAPTER TWO

2.0 HISTORICAL BACKGROUND AND LITERATURE REVIEW

2.1 Historical Background

The history of the Cement Industry in Nigeria can be traced right before independence in 1960. Prior to this time, as a result of geological surveys by the British Colonial Masters, two Cement Producing Companies were established in Nigeria. The first was the NIGERCEM at Nkalagu in the then Eastern Region which was established in 1956. The limestone deposits in that area are estimated to last for about one hundred years. The West African Portland Cement Company was established in 1958. Its factory at Ewekoro, Western Region was commissioned in 1960 and the first bag of cement from this company was put to the market on December 3rd, 1960.

The aim was to complement the imported cement and boast the Nation's efforts in industrialization. These companies were established on the basis of national comparative advantage.

On attaining independence, three additional cement companies were established in the first half of the 1960's in recognition of the crucial role of this industry in the development process. The Cement Company of Northen Nigeria Limited, Sokoto was established in August 1962 and initially commissioned in 1967. After the commissioning the cement plant could not operate effectively because it was wrongly designed. Initially it was designed as a wet process plant, but had to be

converted to dry process after it was found that the raw materials was not suitable for the wet process. The management agreement with the then managing agents was terminated, and in 1979, a contract for resuscitation and expansion of the plant was signed between the company and a German Consortium of firms. The resuscitation and expansion was completed early in 1982. Calabar Cement Company and Bendel Cement Company were both established in 1964 and their plants were cited at Calabar and Ukpilla respectively.

In another development, further investigations by a team of surveyors from the Geological Survey Department into the commercial viability of limestone deposits in the country led to the establishmnt of more cement companies in the 1970's. Benue Cement Company was incorporated as a limited liability company in 1975 but production of cement was to start five years later. The factory was located at the limestone deposits in Yandev near Gboko in Benue State (estimated to last for one hundred years). August 15, 1980 was the day when the first bag of cement produced from the plant was despatched.

In 1976 West African Portland Cement Company established its second plant in Shagamu, while the Federal Government with other investors established the latest cement company at Ashaka Bauchi State in 1978.

The policy of even development and nearness to the source of raw materials influenced the spatial distribution of cement plants in different patts of the country.

Being a resource-locked industry, the availability of raw materials such as limestone, clay, silica sand, coal and shale which are bulky, played a key role in the location of these plants. Cement itself being bulky, requires effective transportation for it to reach consumers at reasonable prices. Consequently, its marketability over long distances is restricted because of high transportation costs.

Characteristically therefore, cement production and distribution is subject to geographic limitations among other things.

Today there are seven cement manufacturing companies with eight plants. These are as follows:

1. West Afridan Portland Cement Company (WAPCO) with two plants at Ewekwo and Shagamu, both in Ogun State.
2. Nigeria Cement Company Limited (NIGERCEM) at Nkalagu in Anambra State.
3. The Cement Company of Northern Nigeria Limited (CCNNL), Sokoto in Sokoto State.
4. Benue Cement Company Limited (BCC) in Yandev Benue State.
5. Bendel Cement Company Limited, Ukpilla Bendel State.
6. Ashaka Cement Company Limited, Ashaka, Bauchi State.
7. Calabar Cement Company Limited (CALCEMCO), Calabar, Cross River State.

Plans have also reached advanced stage for a ₦700 million Cement Company in Dukal, Gongola State.

2.2 Literature Review

Not much literary work has been done on the cement industry in Nigeria, both in the past or in recent times. This part of the Chapter contains a review of the available literature on the cement industry in Nigeria.

According to Umar R. Mohammed, the problems facing the Cement Company of Northern Nigeria have made it difficult for the company to contribute much to the economic development of Sokoto State. In his research in 1985 he identified the following problems.[1]

The Company was confronted with problems of importing spare parts because of the economic measures. It was no more easy to get import licence to import all the needed spare parts into the country. For example the company applied for a license to import spare parts and other consumables to the tune of ₦4.7 million in 1984 but the government only approved ₦1.09 million.

There was also the problem of establishing letters of credit for the licence obtained. All these hampered the company and it could not operate satisfactorily without continuous supply of spare parts and consumables.

The company did not have sufficient trained staff and hence got into contract agreement with the foreign managing agents to train the indigenes until they could effectively take over the operations of the plant.

Seventeen expertrait staff were employed to manage the plant and put the indigenes through on the job during the period of the agreement.

He also identified the problem of scarcity of cement ^ the company had problems on how to distribute cement to the teaming population of consumers. The company could not meet the demand of limited capacity.

Another problem was due to heavy rainfalls during the months of July to September which floads the quarry area making it muddy and inconvenient to the workers and heavy trucks. It also causes high moisture content in the raw materials.

Lack of sufficient power supply to the company was another major problem he identified. Since 1980, the company had pressurised NEPA for the provision of additional capacity of transformers to supplement the existing one in order to meet the ultimate demand of 16 MW by the company. Although, NEPA has installed one additional 24 MW transformer to its Sokoto Sub-Station, there is still the fear that the frequent power cuts may damage the electronic equipments very quickly if something was not done.

To arrest the situation the company after a series of technical discussions decided to purchase a plant consisting of six units of 3 MW Diesel generators from abroad. The cost was N9 million, out of which N6 million was off-shore. Financial offers from foreign banks were made but this financing could only be possible

if the off-shore part could be guaranteed by the Federal Government. The company approached the Federal Government but could not succeed because of the Federal Government policy not to guarantee any further loans from abroad.

Umar in his study, recommended the following measures to solve the problems:

According to him the role of finance in attaining the organisations goals cannot be over emphasised especially in trying to achieve the production target. For this reason, all share holders who have not paid their outstanding equity should be made to pay immediately. It is better to use this outstanding equity for operation costs rather than for the company to go for more borrowing. In view of the erratic power supply by NEPA, the company should make it one of its priority areas to acquire a complete power house, to sustain the project in order to avoid losses in production time and to protect the electronics and electrical gadgets.

To ensure adequate provision of spare parts the company should plan how to use its license and early orders should be placed for spare parts.

The company should explore areas for more limestone to increase its production so that the company can supply the demand of the people in Sokoto State and the neighbouring States. Furthermore, the gypsum deposits around Sokoto should be tapped. In this respect the Federal Government should come to the aid of the company to tap

this important raw material. If it is tapped it may be possible to supply other cement companies in the Federation thus saving huge amounts in foreign exchange.

As a means of motivation, staff should be given all necessary incentives such as provision for accommodation, recognition in their jobs as well as responsibility and above all attractive salaries should be paid. This will enable indigenous staff to work harder and be willing to learn faster from the expertraits they are understudying.

Tunde Otufowara (1985) in his own study recognised the following problems in cement companies:[2]

Noticable in the operation of the cement companies is the degree of government intervention. The government has invested a lot of money in the companies and by right it has to know what is going on, but this has to be limited in order to give the company some free hand to allow for efficient management.

Whereas the priority of the cement companies in the country is to produce cement, the sum total of cement produced locally is grossly inadequate for the Nigerian consumers.

The dignified middlemen called distributors in their own way contribute to high price and artificial scarcity of cement through hoarding. The problem posed by the location of the facilities which make them not easily and conviniently accessible to most of its consumers also created additional constraints.

He gave the following recommendations to help solve the problems:

Cement companies should embark on the distribution of its products through reputable supermarkets, stores, and open up more depots not only along the rail lines but in major cities in the states and eliminate the use of parasitic middlemen styled distributions, who contribute nothing but reap a huge profit.

The amount of cement allocations to construction and Engineering companies should be made commensurate to the level of the work they do in order to make more cement available to minor consumers and property developers. This will also put a stop to sales of excess cement received by these companies.

Political interference, though desirable because of the level of financial involvement by the government in the activities of the companies should be limited in the appointment of Board members to give room for continuity and efficiency.

The companies should be allowed to employ its staff and appoint Board members from the labour market, as this will give it the opportunity of engaging the best materials in business management.

There have been suggestions on Privatization and Commercialisation of government companies to enhance the management and operational efficiency.

"The measure serves as an effective mode of de-regulating the economy and thereby aiding the expansion of the production frontiers."[3]

The Federal Military Government adopted this policy and promulgated decree number 25 in 1988 on Privatization and Commercialisation. According to the Chairman of the Technical Committee on Privatization and Commercialisation (TCPC), Alhaji Hamza Zayyad, over 152 million shares from 20 companies had already been sold out, and shares of 35 others were in the pipeline as at August 1990.[4]

The Benue Cement offer was the 20th to be made by the TCPC in the exercise. It was also the second cement company to be privatised through public offer for sale of its shares by the Committee and the largest single offer that had so far been made since sales of shares commenced in January, 1989.

Chief E.A. Ogunlaye, Chairman of Cement Manufacturers Association of Nigeria, speaking about the economic hardships in the country said that the situation has led to the unviability of five out of seven cement companies, which blown production of cement to 1.1 million metric tonnes last year from the expected 3.1 million metric tonnes.

He further warned that the government may be forced to expend considerable proportion of her foreign exchange to import cement unless the government intervened urgently to arrest the situation.

The effect of this would be a negative development in the government objective of making life condusive for the populace "The Programmes of road development, harbour construction and the cost to provide houses for all by the year 2000 would beamirage."[5]

Using WAPCCO as a case study the Chief said Cement Comapanies now operate with aging in outdated instrument which cannot cope with the current demand for cement in the country. WAPCCO which wanted to replace its machinery five years ago at the cost of N340 million now required about N1.5 billion to carry it out. This is the situation most companies find themselves these days owing to SAP which is squeezing every body dry.

Meanwhile the outgoing governor of Anambra State Col. Mufu Rufai has enjoined the Board of Directors of the Nigercem to device new avenues for making the company more viable.

Minister of Industries, Air Vice Marshal Mahmud Yahaya,[6] said in Gboko, Benue State that factors which contributed to the high cost of cement production in Nigeria were being identified for a possible review in the next budget.

Speaking at the closing ceremony of the 10th Anniversely celebration of BCC Gboko, the Minister assured that the tariff review board of which he is Chairman would also continue to examine the tariff structure as it affected the cement industry and other sectors to ensure that local products were produced at reasonable costs and at affordable prices to the average consumer.

He said that the Federal Government was fully aware of the problems facing Manufacturers in the country, as a result of which a meeting recently held with the Chief of General Staff, looked into the issue with a view to facilitating higher capacity utilization.

According to him those measures clearly demonstrated the importance the Federal Government attached to the manufacturing sector, regarded as the bedrock of the nation's industrialisation.

Apart from the general problems, which applied to all cement companies in the country, the Minister said he was aware of the peculiar problems facing BCC, adding that these included low power supply from the national grid to the plant and most parts of the state and poor communication facilities.

He said the problems which had been on for some time were now receiving the attention of the relevant federal agencies.

The Minister noted with satisfaction that despite those difficulties, the company for the first time since its establishment ten years ago declared dividends for its 1989 operations.

It was significant he said, that the company was one of the cement companies being managed solely by Nigerians, without foreign technical partners.

This arrangement, though not without costs had been most useful, as it had shown that given the right atmosphere of industrial harmony and the necessary tools, Nigerians were capable of holding and managing large and complex organisations without external assistance, he added.

He said the company should make concerted efforts to increase its production capacity from the present 55% to a much higher capacity, to enable it justify its plan to expand its productive base.

FOOT NOTES

1. Umar R. Mohammed, The Cement Company of Northern Nigeria Limited: Its Role in the Economic Development of Sokoto State. Unpublished ADPA Project 1985.

2. Tunde Otufowura, An Evaluation and Analysis of the Contributions of the West African Portland Cement Company Limited (WAPCCO) To The Economic Development of Nigeria. Unpublished ADPA Project 1985.

3. "Privatization and Commercialisation", A Publication of the Guardian Newspaper, Tuesday, April 15, 1986 P.1

4. "It is Better to Own Shares in Companies" A Publication of New Nigeria, Thursday August 16,1990.

5. "WAPCCO Diversifies Its Operations to cope with SAP", Daily Times, Thursday July 19, 1990.

6. "Cement Price to Come Down Next Year" New Nigeria, Friday August 17, 1990.

CHAPTER THREE

3.0 THE STRUCTURE, ORGANISATION AND MANAGEMENT OF THE CEMENT COMPANIES IN NIGERIA

3.1 Ownership Structure

The Cement Industry is highly capital intensive as well as labour intensive. The huge investment outlay required has tended to be beyond the financial resources of most individuals or group in a developing country such as Nigeria. In addition the returns on invested capital have tended to be at best very modest, and as such, private entreprenuers are not very overly enthusiastic about wholly financing cement ventures. In many developing countries therefore, the government pioneered the establishment of Cement Industries.[1]

The ownership structure of the Cement Industry in Nigeria is largely government (See Table 3.1). Except in WAPCCO where the government owns 16.58 %, equity participation by the Federal and State Governments in six out of the seven cement companies exceeds 60% and is as high as 90% in Calcemco. The Federal Government owns shares in all the firms except Bendel Cement Company. Its equity participation in the remaining six firms range from 10.7% in Nigefcem to 73.5% in Ashaka Cement. The State Governments own additional shares in some cement companies directly in six out of seven companies, with equity participation ranging from 8.15% in Ashaka Cement to 78.9% in Bendel Cement. The state governments also own additional shares in some cement companies indirectly

through investment companies owned by then. For example, Odu'a investment company owned by Ogun, Ondo and Oyo States has 26.82% equity participation in WAPOCO while the New Nigerian Development Corporation (NNDC) which is owned by the eleven Northern States has equity holdings in CCNN (25.4%), Benue Cement (5%) and Ashaka Cement (2.04%).

Direct foreign investment is generally low in the Nigerian Cement Industry. Apart from WAPCCO where foreign investors own up to 40% of the equity capital, foreign equity in three of the companies range between 1.1% and 12.3% while it is non-existent in the remaining three companies.

Equity investment in the cement industry by the Nigerian Public is relatively low. On the average, the Nigerian public owns a little under 10% of total equity of the seven cement companies.

With the on going Privatization and Commercialisation, however, the Federal Government has already offered its shares in two of the cement companies to the public for sale. These are Ashaka Cement and Benue Cement Company.

TABLE 3.1 EQUITY OWNERSHIP IN NIGERIA'S CEMENT COMPANIES MAY 1989.

Company	(a) Federal Govt.	(b) State Govts	(c) Total Govts (a-b)	(d) Institutional	(e) Foreign Investors	(f) Nigerian Public
WAPCCO	16.58	-	16.58	26.82	40.00	16.60
CCNNL	31.50	43.10	74.60	25.40	-	-
Ashaka	73.47	10.19	83.66	4.08	12.25	-
Nigercem	10.70	51.40	62.10	11.40	-	26.5
Calabar	40.00	50.00	90.00	10.00	-	-
Bendel	-	78.90	78.90	-	1.10	20.0
BCC	39.00	35.00	74.00	15.00	11.00	-

Source: Central Bank of Nigeria Survey.

3.2 Installed Capacity

The current overall plant capacity in the cement industry is 5.2 million metric tonnes compared with 4.7 million in 1985. The increase in installed capacity since 1986 was accounted for by CCNNL's 400,000 metric tonnes and WAPCCO's 100,000 metric tonnes.

The table below shows the installed capacities for the seven cement companies in Nigeria.

TABLE 3.2 INSTALLED CAPACITIES IN THE NIGERIAN CEMENT INDUSTRY 1989.

Company	Capacity (Metric Tonnes)	% of Total Capacity
WAPCCO	1,500,000	31.1
BCC	900,000	17.1
Ashaka	700,000	31.1
Nigercem	600,000	11.6
CCNNL	500,000	9.6
Bendel	450,000	8.7
Calcemco	400,000	7.7

3.3 Cement Production Process

The first stage in cement production is the winning of the raw materials which are limestone, shale, clay and sharp sand. Limestone, shale and clay are mostly found on the same site and are obtained by blasting in the quarry. The stone is further broken into smaller pieces for easy handling by means of crushers. Sand can be obtained wherever it is easily available. Because of the bulky nature of the raw materials, cement plants are normally located on the site of raw materials to avoid high transportation costs.

There are three conventional methods of cement production, these are the 'wet', the 'semi-dry' and the 'dry' process. All these methods in the final analysis involve the same fundamental stages aimed at producing the same end product.

The choice of process depends on the contribution of different factors all of which must be balanced in making a choice of methods to be used, but because of increase in the price of fuels, the wet process is being replaced by the dry process or semi-wet process wherever the raw materials are suitable.

3.3.1 Process Details

The raw materials are reduced to give particles for easy mixing and blending to produce raw feed mix of uniform chemical composition containing calcium carbonate, silica, alumina, iron oxide and other components in adequate proportions depending on the process used.

3.3.2 Blending and Quality Control

In the wet process, the raw materials are reduced to the required finess in water, blended and stored in slurry tanks and fed to the kiln as fluid slurry. Prepared raw materials are sampled and analysed at frequent intervals during the milling and blending process. The proportion of materials is controlled to give the optimum chemical composition of the slurry. Water in the slurry - typically 30 - 40% by weight is expelled in the initial stage of kiln processing. This process is highly fuel intensive, but can use all types of materials (limestone and clay) with high natural moisture content and can be reduced easily to raw feed finess and blended as slurry. Ewekoro, Calabar and Nkalagu cement factories use this wet process.

In the dry process moisture in the raw materials is expelled by heating in the initial processing stage and in case of hard materials, during the grinding stage. The dry 'meal' when blended is normally passed through pre heater system which completes the drying and brings the meal up to a temperature where it is partially coloured.

In the semi-dry process the raw feed prepared either by the wet or dry methods according to the nature of the raw material is formed into pellets or nodules (ball-shaped) with a medium moisture content. In both processes, samples are analysed at the mixing and blending stage to give a correct composition.

3.3.3 Firing

Kilns for wet process are longer than those for other processes and the water in the slurry has to be expelled before the raw materials can be raised to decarbonation temperature.

The kiln is inclined at about 2 degrees to the horizontal and the material being processed travels down the kiln at a rate of about 30 metres per hour, taking three to six hours depending on its length. The upper drying zone of the kiln is normally fitted with a system of chains hung from the shell. As the kiln revolves, the chains are coated with moist slurry and hanging, in the path of hot gases passing through the kiln, significantly aid the process of heat exchange between the gases and the raw mix.

The wet slurry coating the chains helps to control pollution by trapping it in the kiln. The chains help the passage of materials through the kiln by screening the slurry forward as it dries. As it approaches a low moisture content in the drying zone, the materials form into modules due to tumbling action of the revolving kiln.

The dried material passing through the kiln is heated to decarbonation temperature of approximately 80°C at about the mid-point of the kiln. At this temperature the calcium carborate in the mix is dissociated into calcium oxide (free line) which is retained in the mix and carbon dioxide expelled. The mix is heated further to produce calcium silicates, aluminate and alumino ferrites which are the principal active compounds of Portland cement. Portland clinker is the product derived from continued heating of the kiln to a temperature of 1500°C.

The chinker is cooled to 60-150°C when it can be handled without any danger. The chinker may be sent to the grinding mill but it is usually stockpiled and may be stored for relatively long periods without loosing any value.

3.3.4 Clinker Grinding

The production of finished cement from clinker must be monitored fairly closely, the seasonal and short term fluctuations in the transportation of cement from the plant.

Cement clinker is ground into finished cement in tube mills which are common to all processes - dry, wet and semi-dry. The grinding mills are usually larger and longer than those for the raw materials and the grinding time is longer. The grinding tube is a revolving cylinder divided into two or three chambers containing size-graded steel grinding media which reduce the hard clinker to the required finess by combination of import and friction.

The clinker and gypsum to be grounded enter the mill through one revolving trunion and leave the mill through the trunion at the opposite end. A small proportion of gypsum is added to the clinker-usually 4% before it is grounded into cement to control the setting time of the finished product.

3.3.5 Cement Handling and Storage

The finished product is taken to storage silos before being despatched or packed into bags for transportation. Cement silos are of reinforced concrete construction, weather proof and as nearly airtight as possible. Storage time is short and silos storage capacity is normally equal to about two weeks production. Cement in storage settles and air is therefore used to fluidize it for extraction from the silos into hoppers from which it is either loaded for bulk delivery or packed for despatch in bags.

3.3.6 Quality Control

Quality control is at every stage of production from the quarry to the finished product. The laboratory analysis at every stage is relayed back to those controlling the production process, which governs the quarrying of raw materials, their blending, the firing regime of the kiln, the grinding of the clinker and in the end, the quality of cement produced. Samples are collected at regular intervals from each of the manufacturing stages and tested chemically and physically in the laboratory. Much of the routine testing carried out provides a rapid analysis that shortens the time lag between sampling and any necessary adjustments to the manufacturing process.[3]

3.4 Organisation and Management

To organise is to put into working order or to arrange in a system. Organisation may be regarded as the establishment, with necessary authority, and provision for coordination of relationship between persons assigned in the performance of specialised tasks for the achievement of an enterprise's objectives. It is a structural relationship by which an enterprise is brought together and the frame which individual workers are coordinated.

Management organisation is therefore the process of identifying and grouping the work to be performed, defining and delegating responsibility or authority and establishing relationship for the purpose of enabling people to work effectively together in accomplishing objectives.

In order to accomplish their objectives, each of the cement companies have a defined organisational structure for effective management of the companies.

The organisational structure for the various Cement Companies are as follows:

3.4.1 West African Portland Cement Company Organisational Structure.

The overall general administration is carried out at the Elephant House in Lagos, the Company's administrative headquarters. The structure is as follows:

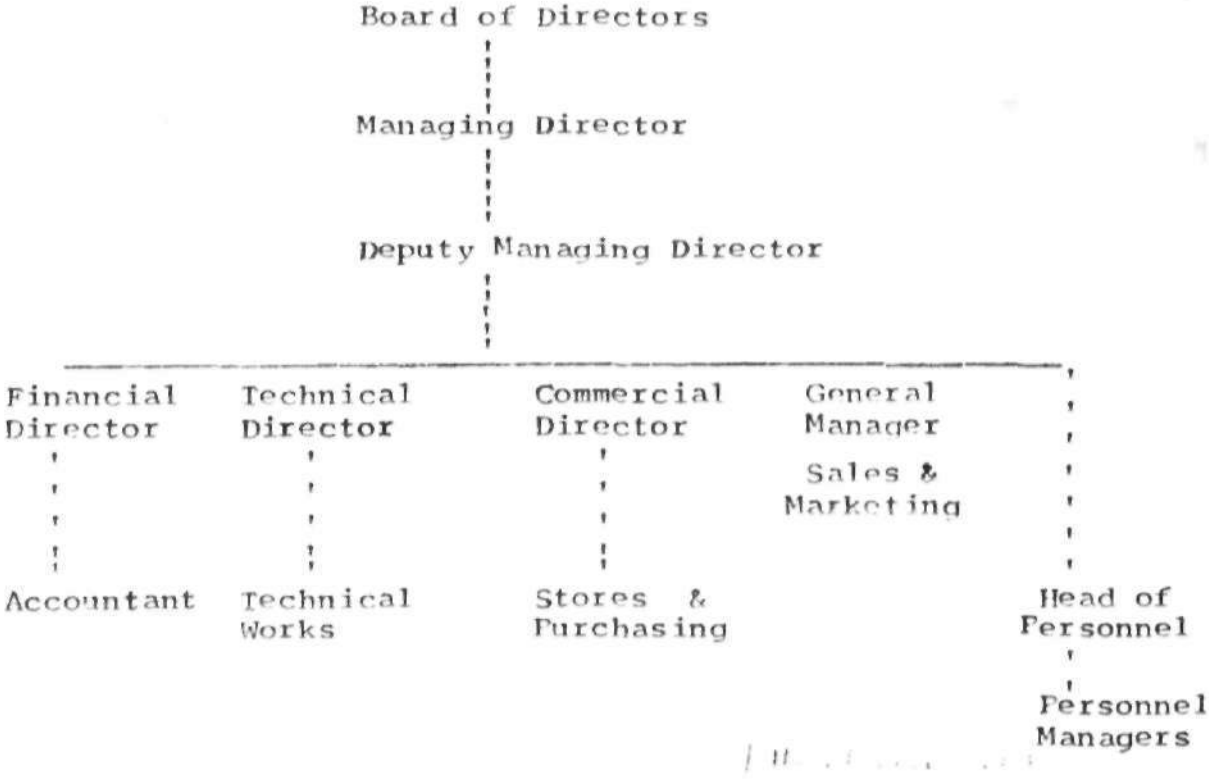


Fig 3.1: WAPCCO Organisational Chart (Headquarters)

The Managing Director who is the Chief Executive is responsible for the overall administrative control of the company. The Deputy Managing Director reports directly to him and coordinates the activities of the Financial Director, Technical Director, Commercial Director, General Manager Sales and Marketing. He takes control in the absence of the Managing Director. The head of Personnel has direct assess to the Managing Director.

The structure of administration at the factory site is as follows:

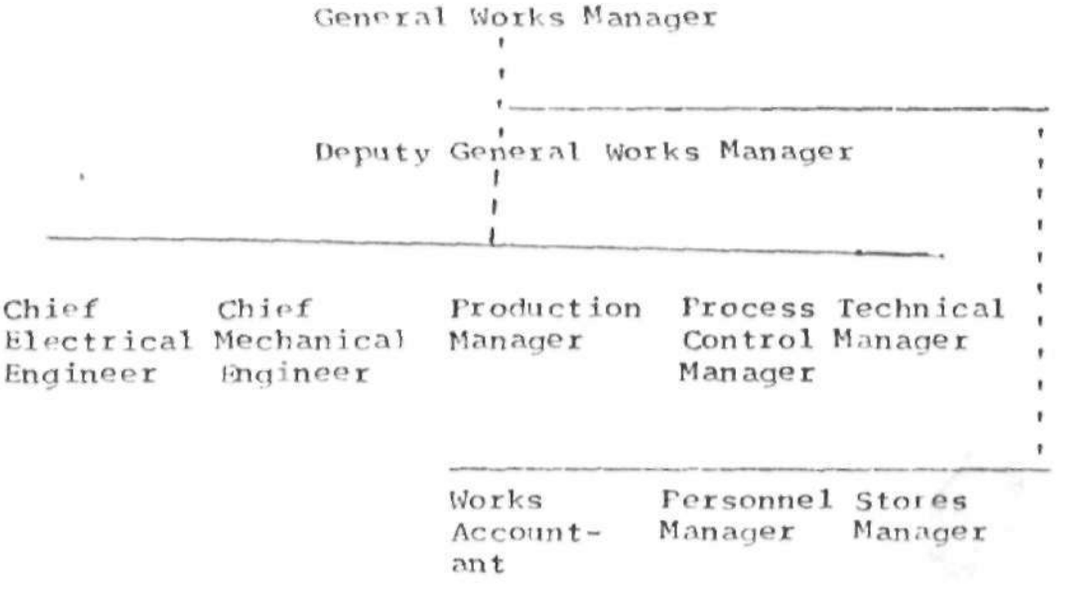


Fig 3.2: WAFCCO Organisational Chart (Factory).).

The administration at the plant site is carried out by the General Works Manager assisted by the Deputy General Works Manager. The operation is divided into functional departments which are headed by a Senior Manager and assisted by other Managers and Supervisors. The General Works Manager reports directly to the Technical Director at the headquarters.

Finance Department

The department is responsible for the accounting duties of the company i.e. payment of salaries and wages, preparation of works budget, control expenditure, calculation of production cost, material labour and energy as well as secretarial duties.

Personnel Department

This department is headed by a Personnel Manager and assisted by Industrial Relations Manager. There are four sections under this department, namely estates, transport, welfare, security, Dispensary and Canteen. It is responsible for recruitment of Junior/Casual Workers, looking after the company's assets both at work and in the estates.

Production Department

This is headed by a Production Manager who is assisted by two process and four shift managers. This department is directly responsible for the production of cement i.e. obtaining raw materials, preparation of raw meals, clinker formation and grinding. It also works with other departments i.e. Engineering process control and production control in order to ensure smooth production.

The Engineering Department

This is the back bone of the company. It is made up of electrical, mechanical and process control units. Mechanical Engineering is responsible for repairing, maintaining and servicing of all machinery and equipments

including automobiles and generators. It is headed by the Chief Mechanical Engineer and assisted by Sectional Engineers.

Electrical Engineering is headed by the Chief Electrical Engineer. The section generates, maintains electrical power supply, protects all electrical equipments.

The Process Control Department

This is headed by a Process Control Engineer assisted by Sectional Engineers. It liaises with both Production and Chemical Department in the control of the Chemistry of cement, monitoring and control of flow water indicators, temperature and analysis of gases in the kiln.

Production Control Department

This is a Chemical Department headed by a Chief Chemist and Quality Controller. It analyses the chemistry of raw materials, helps to blend the raw meal by analysing samples, determines the quality and strength of cement.

Commercial Department

This department takes care of all purchases for the company and keeps stock of such purchases. It is divided into stores and purchasing units.

Sales and Marketing Department

The department receives orders for the company's products, promotes and advertises for the products and arranges for distribution of the products.

3.4.2 The Cement Company of Northern Nigeria Organisational Structure

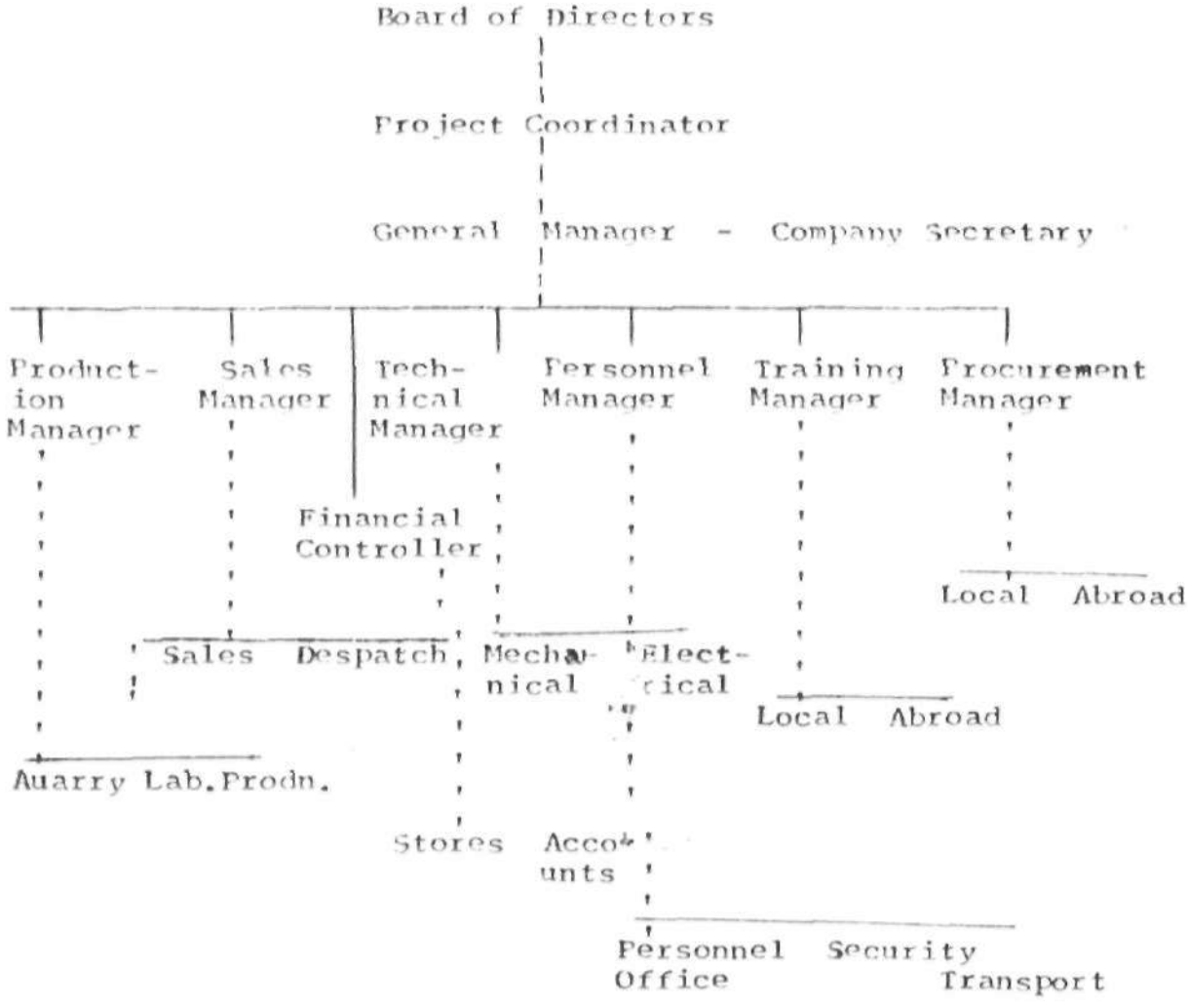


Fig 3.3 CCNNL Organisational Chart.

The Board of Directors

The board is directly responsible to the Federal Ministry of Commerce and Industries. It makes policies for the company, reviews the progress of the company from time to time and evaluates its performance of the management.

The Principal Officers of the Company are as follows:

Project Coordinator

He is the Chief Executive and the eyes of the Board of Directors. He helps in interpreting policies of the Board to the Management. He sees to the overall running of the Company. He is fully responsible for all the operations of the company and reports directly to the Board.

The General Manager

He is directly responsible for the total organisation of the cement plant and he reports to the Board through the Project Coordinator. He supervises all Personnel of the company and the departmental heads report to him directly.

Company Secretary

The Company Secretary helps in the day to day running of the Organisation administratively. He reports to the Project Coordinator. Other functions performed by the Secretary include Recruitment, appointments, coordination of study leave. He is the Secretary of the Board, implimentation Committee and all committees of the Board. He makes and files all returns to the registral of companies.

Production Manager

He is responsible for optimal use of the machinery of production, thus providing an efficient service of all departments concerned to ensure a continuous running time. He reports to the General Manager. He is responsible for planning and coordination of production in respect to

technical and economic resources.

Technical Manager

He is responsible for general maintenance of all fixed assets of the company for new installations within the premises and for essential services such as water, electric power supply, thus providing efficient services to the production area in order to ensure that the running time over a long period is kept to an uptimum. He reports directly to the General Manager.

Financial Controller

He directs the management of accounts department and everall supervision and administration of the department. He is responsible for all taxation matters, handles relation with banks, negotiate financial requirements, loans, deposits etc.

Personnel Manager

He is responsible for the running of the Personnel Departm nt which includes recruitment, conditions of service and all matters that affect the welfare of the company staff. He reports directly to the General Manager.

Sales Manager

The Sales Manager is in charge for establishing a system of marketing, distribution and advisory service to the clients. He reports to the General Manager.

Procurement Manager

He is responsible for procurement of all supplies required by the company including spare parts, and equipments. He reports to the General Manager.

Training Engineer

He is responsible for the planning, Implimentation and follow up training activities. He advises management on matters concerning training and reports directly to the General Manager.

3.4.3 Benue Cement Company Limited
Organisational Structure

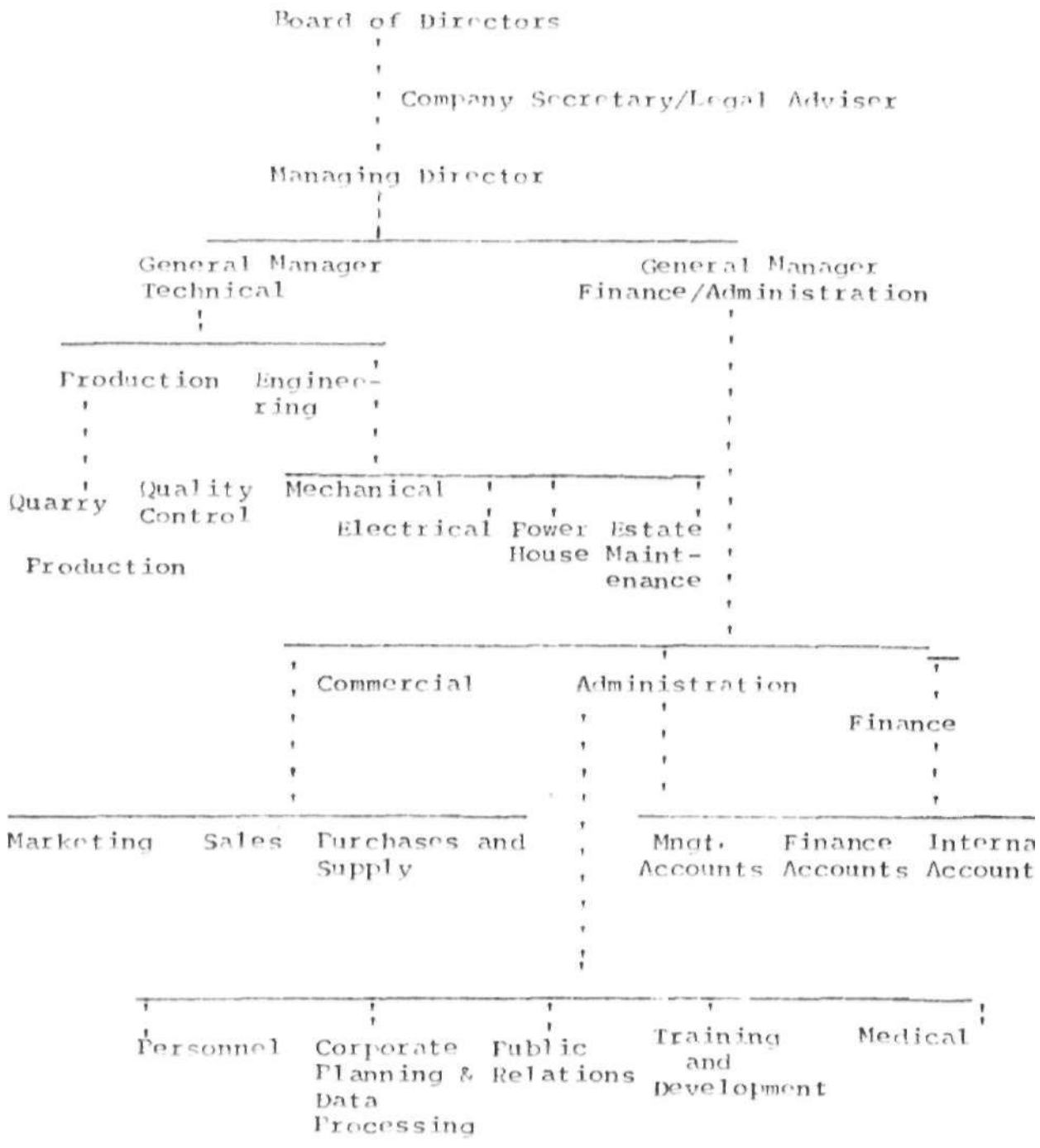


Fig 3.4: B Organisational Chart.

The Board of Directors

The Board is made up of representatives from the Government and other share holders. It evaluates the performance of the whole company and reports to the Federal Ministry of Commerce and Industry through the Chairman. It approves the annual budgets of the company, appoints top management staff. It also make policies for the company.

Managing Director

He is the representative of the Board and oversees all the activities of the company. He is the Chief Executive Officer of the Company and the General Managers for Technical, Administration/Finance, Company Secretary and Lagos Liasion Officer report directly to him.

Company Secretary

He is the Secretary to the Board. He assists the Managing Director in the day to day running of the activities of the company. He advises the Company on all Legal Matters.

General Manager (Technical)

He co-ordinates the activities of production and Engineering departments and reports directly to the Managing Director. He is responsible for the planning, installation and maintenance of all machinery, equipments and instruments of the company.

General Manager(Finance/Administration)

He co-ordinates the activities of Finance, Administration and Commercial Departments and reports directly to the Managing Director. He is responsible for the planning, budgeting and co-ordination of all administrative matters of the company.

A.G.M. Production

He is responsible for the production of cement in the company from the winning of raw materials in the quarry, processing the cement up to the packing plant. He plans production and controls the quality of cement produced by the company and reports to the GM Technical.

A.G.M. Engineering

He heads the Engineering Department and co-ordinates the activities of Mechanical, Electrical Engineering and the Power House units. He is responsible for the maintenance of equipments and machinery.

A.G.M. Commercial.

He controls marketing, sales, purchasing and supply in the company and is responsible for planning and implimentation of all distribution, promotion, advertising activities. He also takes care of purchasing or procurement of spare parts, raw materials, fuels and other products needed by the company. He advises consumers of the company.

A.G.M. Administration

He is the Senior Administrative Manager and controls Personnel, Public Relations, Training and Development, Medical, Corporate Planning and Data Processing.

He is responsible for the day to day running of the organisation administratively and also for the running of the personnel department which include recruitment, conditions of service and all matters that affect the welfare of the company staff.

A.G.M. Finance

He controls the Internal Audit, Management Accounts and Finance Accounts Units of the Company. He is responsible for preparation of Annual Accounts for Audits, Preparation of Annual Budgets, Provision of Profit and Cash flow Statements and provides monthly and quarterly reports for Management.

3.4.4 Ashaka Cement Company
Organisational Structure

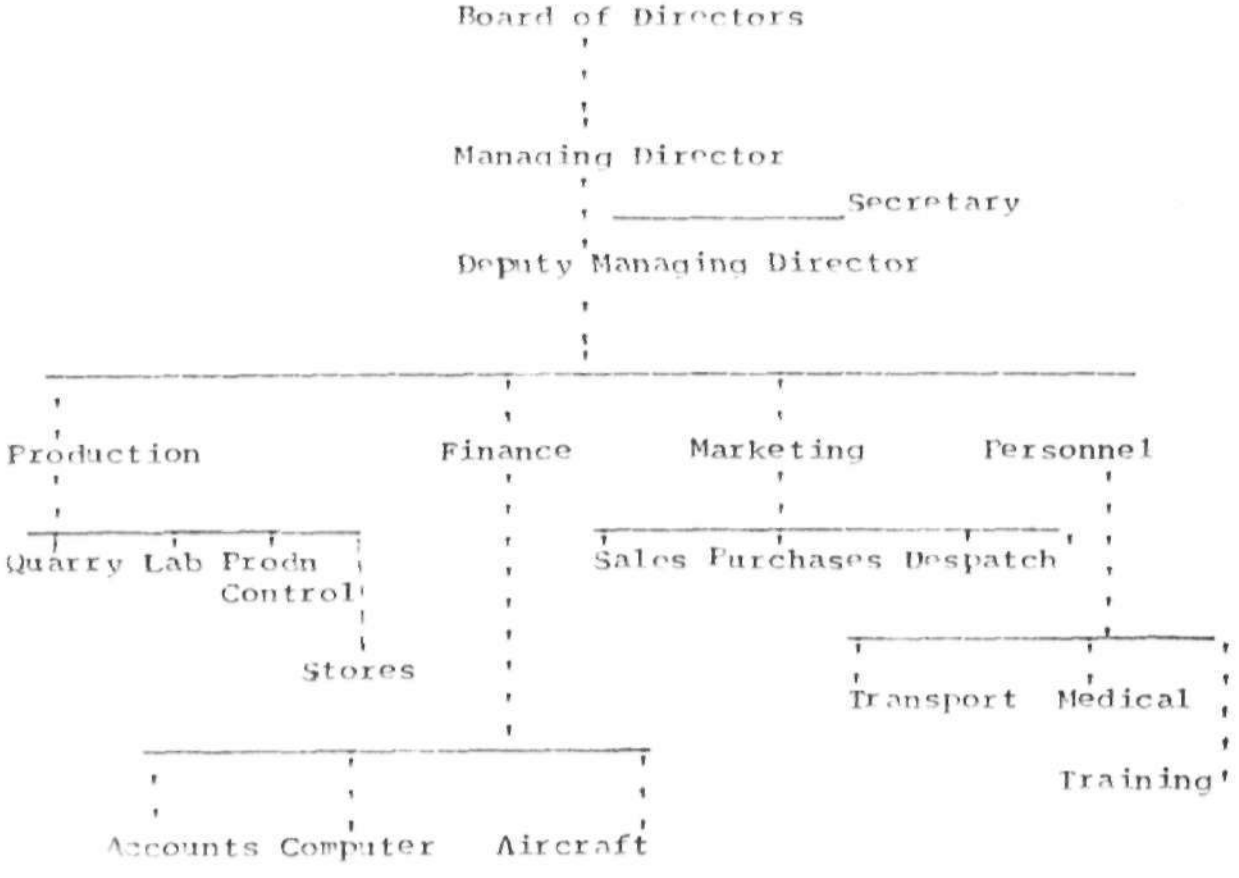


Fig 3.5: Ashaka Cement Organisational Chart.

The Board of Directors

The Board of Directors of the company are charged with the following responsibilities:

To make policies to the company within the frame work as laid down by the Federal Government, approve budget and major contracts of the company and evaluate, the pefformance of the Management.

The Managing Director

The Managing Director is the Chief Executive of the company and is responsible for the over all administrative control of the company and reports to the Board.

Deputy Managing Director

He reports directly to the Managing Director and takes charge of the whole company in absence of the Managing Director. He helps him in co-ordinating all the departmental heads of production, finance, marketing and personnel who reports to the Managing Director through him.

Production Manager

He is incharge of the production of cement in the company. He plans annual production budgets, supervises and controls all production activities. He co-ordinates Quarry, Laboratory, Production Control and Stores Units.

Financial Manager

He is the head of the Finance Department and has the units of Accounts, Computer and Aircraft under him. He manages the accounts of the company, and takes care of all the accounting duties.

Marketing Manager

He plans selling efforts and follows up the sales trends, plans and carries out training of sales representatives. He plans guidelines for policies regarding advertising and other sales promotion activities.

He also plans distribution systems. As the head of the Marketing Department, he controls sales, purchases and despatch units of the company.

Personnel Manager

He is the head of Personnel Department and controls Transport, Medical Training Units. He supervises and controls all personnel functions in the company including recruitment, salaries and wages and the general welfare of staff.

The Company Secretary

He is stationed at the Lagos Liaison Office and discharges the duties of a Legal Adviser to the Company and is also the Secretary to the Board.

The ownership of the Cement Companies is mostly government and in almost all the Board of Directors, the Federal or State government has the highest number of representatives. All the Chairmen of Boards are appointed by either the State or Federal Government. In CCNN Sokoto for example the composition of the Board of Directors is as follows:

4 representatives of Federal Government

2 representatives of NNDC Ltd, Kaduna

2 representatives of Sokoto State Government

1 representative of Kano State Government

1 representative of Kaduna State Government

The Chairman is appointed by the Federal Government among its representatives and the Board is directly responsible to the Federal Ministry of Commerce and Industries.

FOOT NOTES

1. "The Manufacture and Utilization of Portland Cement Report of the Interregional Seminar" held at Hoste Denmark, 7 - 20 May, 1972 and published by United Nations P.7.

2. The CCNNL Sokoto has set aside its old 100,000 tonnes plant capacity acquired in 1962, Until funds are available for its reactivation. Currently, the abandonmed capacity represents excess or idle capacity for the industry.

3. 'Twenty-Five Years of Nation Building' WAPCCO Silver Jubilee Special Publication

CHAPTER FOUR.

4.0 PRESENTATION AND ANALYSIS OF DATA

TABLE 4:1 PROPORTION OF INSTALLED CAPACITY UTILISED 1984-1989

Company	1984	1985	1986	1987	1988	1ST QTR. 1989
	%	%	%	%	%	%
WAPCCO	97.0	91.0	84.0	88.0	84.0	77.0
CCNNL	45.0	86.0	61.0	46.0	40.0	45.0
AShaka	86.0	96.0	96.0	105.0	124.0	120.0
Nigercem	21.3	30.0	43.3	38.5	32.7	30.7
Calcemco	-	14.3	15.8	14.0	6.5	7.3
Bendel	10.0	26.0	21.0	29.0	26.0	13.0
BCC	74.7	89.6	76.6	61.6	65.8	65.8
TOTAL FOR INDUSTRY	65.7	71.8	66.9	64.6	64.2	61.3

Source: CBN Survey

TABLE 4:2 COMPANIES' MARKET SHARE (%)

	1984	1985	1986	1987	1988	1989
I LOCAL PRODUCTION(%)	69.8	81.0	81.4	82.9	80.9	99.99
1. WAPCCO	34.9	39.2	32.5	35.5	33.2	39.20
2. CCNNL	1.1	2.1	7.2	5.6	4.8	7.0
3. Ashaka	14.2	16.4	15.6	18.0	20.8	25.70
4. Nigercem	3.0	4.4	6.0	5.7	4.7	5.64
5. Calcemco	-	1.4	1.5	1.4	0.6	0.80
6. Bendel	1.0	2.9	2.3	3.2	2.7	3.53
7. BCC	15.6	19.6	16.3	13.5	14.1	18.13
II IMPORTS(%)	30.2	19.0	18.6	17.1	19.1	0.01
TOTAL	100	100	100	100	100	100

Source: Central Bank of Nigeria Survey

TABLE 4:3 SUPPLY AND DEMAND STATISTICS ON NIGERIA'S CEMENT INDUSTRY

ITEMS	UNITS OF MEASURE	1984	1985	1986	1987	1988	1ST QTR 1989
(A) Installed Capacity	Million Metric tonnes	4.7	4.7	5.2	5.2	5.2	1.3
(B) Capacity Utilization	%	65.7	71.8	66.9	64.6	64.9	61.6
(C) Prodn. Demand	Million Metric tonnes	3.0	6.6	6.6	5.5	7.5	1.9
(D) Market Supply							
(i) Sales (Local Prodn)	"	6.9	3.4	3.5	3.38	3.39	0.8
(ii) Sales Imports	"	1.3	0.8	0.7	0.8	0.8	0.08
Total	"	4.3	4.2	4.2	4.2	4.2	0.88
(F) Demand/Supply Gap	"	2.6	2.4	2.4	1.3	3.3	1.02
(G) Price per tonne (Average)	₦	88.3	102.8	165.6	204.8	294.6	370.6

Source: CBN Survey.

TABLE 4:4 CHANNELS OF DISTRIBUTION

NAME	Dealer Distribution	Construction firms, Govt., Institutions, Individual	Direct account, public Relations, Traditional Institutions	Sales to Staff	Bulk Purchase	For Management over ride for Debt servicing of contingency
	%	%	%	%	%	%
WAPCCO	33.0	67.0	-	-	-	-
CCNNL	70.0	30.0	-	-	-	-
Ashaka	49.5	8.1	27.0	5.4	10.0	-
Calcemco	50.0	30.0	10.0	-	-	10.0
Bendel	50.0	50.0	-	-	-	
BCC						

Source: CBN Survey

TABLE 4.5 CEMENT COMPANIES EX-FACTORY - UNIT PRICE PER TONNE 1984-1989

Company	1984	1985	1986	1987	1988	1ST QTR 1989
WAPCCO	78	90	140	180	276	320
CCNNL	-	-	-	-	300	400
Ashaka	169	113	154	225	251	315
Nigercem	78	102	169	199	283	358
Calcemco	-	96	150	220	320	400
Bendel	-	113	215	200	272	411
BCC	-	-	-	-	360	360
AVERAGE PRICE	88.33	102.80	165.60	204.80	294.57	366.28

Source: Central Bank of Nigeria Survey

TABLE 4.6: SALES PRICE MOVEMENT AND PROFIT PER BAG 1984 - 1989

Year	Average Unit cost of Production per Bag	Average Ex-Factory Price Per Bag	Industry's Average Profit Margin Per Bag	Average Market Price Per Bag	Profit shared by the appointed Distributor and Retailer per Bag
	N	N	N	N	N
1984	2.91	4.42	1.51	5.00	0.58
1985	3.04	5.14	2.10	6.00	0.86
1986	6.90	8.28	1.38	12.00	3.72
1987	8.95	10.24	1.29	25.00	14.76
1988	10.64	14.73	4.09	30.00	15.27
1ST QTR 1989	11.90	18.30	6.40	45.00	26.68

Source: CBN Survey

TABLE 4.7: TOTAL COST OF PRODUCTION AND RAW MATERIALS IN CEMENT COMPANIES

ITEMS	1984	1985	1986	1987	1988	1ST QTR 1989
Total Prodn costs(N'm)	175.1	201.8	478.0	605.4	721.2	194.0
Total Value of Raw Materials used (N'm)	99.6	100.2	190.5	279.2	325.4	81.2
Raw Materials as a % of Total Prodn costs (%)	56.9	49.6	39.8	46.1	45.1	41.9
Value of locally sourced raw materials (N'm)	90.9	91.2	179.6	255.7	295.5	72.2
Locally sourced raw Materials as a % of Total costs (%)	51.9	45.2	37.6	42.2	41.0	37.2
Value of imported raw materials (N'm)	8.7	9.0	10.9	23.5	29.9	9.0
Imported raw materials as a % of total cost(%)	4.9	4.5	2.3	3.9	4.1	4.6

Source: CBN Survey.

TABLE 4:8: PROFITS (LOSSES) OF CEMENT COMPANIES 1984-1989

N'000

Company	1984	1985	1986	1987	1988	1ST Q 1989
WAPCCO	28996.0	30019	35245	46988	67988	18643
CCNNL	(23840)	(16910)	(42370)	(37802)	37838	-
Ashaka	12713	13416	18503	34907	58832	24783
Nigercem	(54140)	(574)	5799	4919	8939	2134
Calcemco	N/A	(2952)	(5240)	(5506)	(68245)	1706.5
Bendel	-	(217)	1058	1330	2521	-
BCC	N/A	N/A	N/A	N/A	10104	-

Source: Central Bank of Nigeria Survey

TABLE 4.9: PROFIT MARGIN FOR NIGERIA'S CEMENT COMPANIES 1984 - 1989

ITEMS	1984	1985	1986	1987	1988	1ST QTR. 1989
Average Unit cost of Prodn per tonne	58.10	60.80	137.90	178.90	212.80	237.70
Average Unit (Ex-Factory) Selling price per tonne	88.30	102.80	165.60	204.80	294.60	366.30
Industry's average profit margin per tonne	30.20	41.20	27.70	25.90	81.80	128.60
Industry's average profit margin per Bag	1.51	2.10	1.38	1.29	4.09	6.40

Source: CBN Survey.

4.1 CAPACITY UTILIZATION

Even though the cement industry's sources of raw materials is about 95% locally, it operated less than its full capacity in the review period. Average capacity utilization rate increased from 65.7% in 1984 to 71.8% in 1985, but declined by 4.9 and 2.3% to 66.9 and 64.6% in 1986 and 1987 respectively. In 1988 capacity utilization rate increased marginally to 64.9: and as at the end of the first quarter of 1989, it was 61.6% (Table 4.1). However compared with the overall average for the manufacturing sector which fluctuated between 42% in 1984 and 44% in the first quarter of 1989, the average capacity utilization rates operated by the cement sub group were consistently higher than the overall sectoral average. Cement companies operated less than 30% of their installed capacities. The under-utilization of capacities was due to inherent constraints such as obsolete machineries, dearth of spare parts needed to refurbish the ageing machinery and inadequate local facilities for reconditioning worn out parts. With the inherent scarcity of foreign exchange, efforts are already made by the cement companies to seek for external loans from institutions such as the International Finance Corporations (IFC) the likely hope for improvements in the forseable future lies with the government providing the required guarantee to facilitate the loan procurement for the purpose of refurbishment of the machinery.

4.2.0 DEMAND AND SUPPLY

Prior to the establishment of the first cement plant in 1956, cement consumption was quite, substantial and was dependent wholly on importation up till 1961, when local consumption began to outstrip imports for the first time. The consumption of cement is subject to several variations, with relatively low demand during the third quarter of the year (rainy season when less building and construction works are undertaken) and higher consumption in the other quarters of the year, particularly the first and fourth quarter.[1] As cement consumption in Nigeria increased rapidly and steadily over the years, so also have additional plant capacities increased to meet growing demand. A bothersome aspect however has been the prohibitive increases in prices from time to time - a pointer to the disequilibrium in the demand and supply configuration and/or in the marketing and distribution network.

4.2.1 Domestic Production and Supply

Domestic production of cement was fairly stable during the period 1984 - 1988. It ranged between 3.0 and 3.5 million metric tonnes during this period. From the figures available on the first quarter of 1989, total production in 1989 is estimated to be about 3.4 million metric tonnes.

1986 respectively, and rose again to 0.8 million metric tonnes in 1987. Imports in 1988 stagnated at the 1987 level and available indications for 1989 are that total imports would remain at approximately 1987/88 level. The decline in the quantities of imported cement during the 1985-1989 is attributable to the depreciation in the value of the Naira, which made landing, cost (₦31.00 per bag early in 1989) relatively expensive. The closure of the nearby Onigbolo Cement Company in the Republic of Benin also constrained the supply of imported cement.

4.2.3 Total Domestic Supply

Owing to raising level of economic activities the demand for cement has maintained a steady monotonic climb from the 1950s to date except during the civil war when demand declined. Aggregate demand for cement in the country was estimated at 7.5 million metric tonnes in 1985.[3]

4.2.4 The Demand - Supply Gap

A growing demand-supply gap exist for cement in Nigeria, partly because of the astronomic rise in the derived demand for it, following the rapid expansion in the construction industry and partly due to the apparent stagnation in supply occassioned foreign exchange constraints. Netting out estimated demand of 7.5 million metric tonnes against current supply of 4.2 million metric tonnes, the supply gap was estimated at 3.3 million metric tonnes.

This gap is approximately the size of current domestic production. A substantial supply gap is not a new phenomenon, particularly since the oil boom period, when huge public expenditures necessitated heavy and large-scale construction activities. This gap which was 2.6 million metric tonnes in 1984 declined to 1.3 million metric tonnes in 1987, but increased again in 1988 and 1989, owing largely to a sudden surge in government construction activities, the latest of which are the political parties offices in state and local government capitals.

4.3.0 MARKETING AND DISTRIBUTION.

Owing to the bulky nature of cement and the consequent high cost of road haulage, the geographic dimension of marketing cement is primarily local or regional. Nigerian cement companies therefore service their immediate market areas first before other considerations. Cement is sold through quantity allocations to construction firms, appointed dealers and distributors, government and in some cases private individuals.

4.3.1 Channels of Distribution

Currently, cement companies allocate on the average of 43.1% of total production to construction firms, government institutions and a few private individuals.

The second major allocations averaging 42.3% goes to appointed dealers or distributors. The balance of 14.3% is distributed at the discretion of the Management of the cement companies such that 9.1% of the total production is allocated on public relations basis, 3.4% for traditional institutions and 1.8% for the staff and management of the cement companies. For instance in 1988, WAPCCO allocated 67% of its total output to construction firms, government agencies and individuals, leaving more than 33% for appointed distributors (See Table 4.4). CCNNL Sokoto allocated 30% of its 1988 output to construction firms, government institutions and private individuals, while Ashaka cement allocated only 8.1% to the same group. Appointed dealers and distributors of CCNNL and Ashaka cement obtained 70 and 49.5% of the respective output of their companies. Calabar and Bendel cement each allocated 50% of their output to appointed dealers and distributors.

The distribution channel is such that on the average, dealers and distributors control as much of the market as construction firms, government institutions and individuals. If the other categories (public relations, staff etc) are taken into account, the bulk of cement produced goes into the market through non-dealer/distributor channels.

4.3.2 Cement Price Movement

Ex-Factory Prices:

Increased production costs influenced greatly the price situation. The ex-factory price has thus risen consistently since 1984 (See Table 4.5).

It ranged from N78 per tonne in 1984 (WAPCCO and Nigercem) to as high as N411 per tonne (Bendel Cement) in the first quarter of 1989. Increases in cement firms average ex-factory prices were 16.4, 61.1, 23.7 and 43.8% in 1985, 1986, 1987 and 1988 respectively. The average ex-factory price increased further in the first quarter of 1989 by 24.3% to N316.28. The ex-factory price per tonne more than quadrupled between 1984 and the first quarter of 1989. The picture was identical in terms of changes in ex-factory price per bag at N18.32 also quadrupled its 1984 norminal value (See Table 4.6).

Retail Market Prices

The actual market prices of cement difference significantly from the ex-factory prices during the period under review. This margin widened substantially from 1986 (Table 4.6). From an average of N5.00 per bag in 1984, the retail price increased steeply by 20, 108.3 and 20% respectively to N6 in 1985, N12 in 1986, N25 in 1987 and N30 in 1988. It also increased substantially by 50% during the first quarter of 1989 to N45.

The 1989 market price of cement was therefore nine times its 1984 market price. This permitted an astronomical rise in the average profit margin (shared by the distributor and the retailer from 58k per bag in 1984 to N26.68 per bag in the first quarter of 1989.

A peculiar feature in the marketing and distribution channel is the sale of cement allocation papers bearing N18.32 ex-factory price per bag (for a specified number of bags) to a retailer for about N38.50 per bag.[4]

The retailer invariably bears the transportation cost from the cement plant site to the retail outlet, where he sells each bag for about ₦45. Based on the figures supplied by cement retailers on the unit cost of ₦1.70 per bag for transporting one bag of cement from plant site to market, the retailer obtains a margin of ₦4.80 on each bag, out of which other costs may be deduced while the distributor or dealer gives as much as ₦20.18 per bag for little or no domestic output.

Distributors and dealers however, justify their excessive margins on the grounds that there are long lags in cement deliveries (3 to 4 months) during which their deposits with the cement companies are tied down. The latter are said to trade with customers' money, since deliveries are made several months after cement allocation papers would have been collected.

4.4.0 PRODUCTION COSTS AND PROFITABILITY

4.4.1 Production Costs

Total production costs in cement companies comprise of fixed and variable costs. The fixed costs which are generally constant include depreciation changes, rentals, general and administrative costs, salaries of executives and management staff, and some part of maintenance costs. Other costs such as those on raw materials, spare parts, factory labour, energy, repairs and maintenance costs vary with the level of output, age of machinery, and prevailing economic factors such as exchange rate and interest rate movements.

Production costs in the industry have risen sharply over the years particularly since the introduction of SAP and with it the SFEM whereby the value of the Naira is made to reflect market forces of supply and demand. Owing to the substantial depreciation of the Naira, imported inputs have become very expensive while working capital requirements have also grown.

Production costs moved up by 15.2% to N201.8 million in 1985. A sharp increase of 136.9% was recorded in 1986, when production costs move than doubled to N478 million. The steady rise in costs was maintained as increases of 26.6 and 19.1% were recorded in 1987 and 1988 respectively (See Table 4.7). Figures for the first quarter of 1989 indicate a continued rise in production costs.

Raw materials comprised on the average, 46.5% of total production costs during the period. Other costs particularly repairs and maintenance increased. The depreciation of the Naira was a major constraint in the importation of machinery, spare parts, high power fuel oil (HPFO) and gypsum, all of which are basic to cement production. Imported Kraft (for packaging) is also expensive, since most of the machinery at the cement plants were over twenty years old, their states of depreciation necessitated rehabilitation or replacement. Many of the cement companies owing to shortage of funds were unable to replace obsolete machinery with the consequent impact on production. Some ingenuity at cost saving was however demonstrated as three of the cement producer now use poly propylers materials for packaging instead of the more expensive Kraft paper.

It could be seen that over the five years period 1984 - 1988 production costs more than quadrupled from N175.1 million to N721.2 million, increasing by 311.9%, while volume of production increased by only 13.3% during the same period. It should be noted that production costs in the first quarter of 1989 exceeded total production costs in 1984 by 10.9%, while cement output in the first quarter of 1989 was slightly less than one quarter of its level in the comparable period of 1984. For cement companies therefore, high production costs appear to be inversely related to the production volume during the period reviewed. This was probably due to limited funds, particularly working capital. The phenomenon also explains why the cement companies tied down funds placed with them for cement allocation over relatively long periods of time before cement is actually delivered to customers.

4.4.2 Profitability

Table 4.9 shows that the profit margin for the cement industry increased by 36.4% from a level of N30.2 per tonne in 1984 to N41.2 per tonne in 1985. With the introduction of the SAP and SFEM, costs escalated such that profit margins shrank by 32.8 and 6.5% to N27.7 and N25.9 per tonne in 1986 and 1987 respectively. The profit margin however widened significantly in 1988 and in the first quarter of 1989 by 21.5 and 27.2% to N81.80 and N128.60 per tonne respectively in response to the steep rise in demand most of which arose from government related building and construction programmes.

Total profits in 1988 exceeded the 1987 level by 68%.

Three of the seven companies - WAPCCO, Ashaka cement and Niger cem maintained a rising trend in their respective profit levels from 1986 through 1988 (Table 4.8). Ashaka cement recorded the highest profit of N24.8 million in the first quarter of 1989 followed by WAPCCO with N18 million, Nigercem with N2.1 million. On the other hand, two of the cement companies CCNNL and Calcemco, recorded losses from 1984 to date, owing to low production levels by Calcemco because of difficulties in procurring imported inputs and due to huge indebtedness (on foreign capital) by CCNNL. Calcemco sustained losses ranging from N3.0 million in 1985 to N6.8 million in 1988, while CCNNL made huge losses of N42.4 million and N37.8 million in 1985 and 1988, respectively. CCNNL for example, has an annual loans loss provision of N33.1 million to offset its debt payments which comprise N19.4 million interest payments and finance charges and depreciation charges totalling N13.7 million in imported capital.

Given the capital-intensive nature of the industry, it was observed that the profit margin is relatively low. Profit as a percentage of sales turnover ranged on average between 20.9 and 22.6% during 1984 - 1988. Average profit margin per bag accruing to the cement companies ranged between N1.30 and N6.40 during the period 1984 through the first quarter of 1989 (see Table 4.9).

Compared with profit margins of ₦4.80 per bag for the retailers and as much as ₦20.18 per bag for dealers and distributors and other dubious distributors/Middlemen who obtained cement allocation papers.

In the cement industry therefore, the companies who bear the brunt of very high production costs make, at best only very moderate profits while middlemen with little and sometimes no capital outlay make impressive gains with little or no effort. The situation is such that the large capital required and the low returns expected constitute major disincentives to prospective entrants into the industry. Rather the prospects of being a dealer or distributor is more lucrative and attractive and many compete for this middleman role.

FOOT NOTES

1. A. Akinnusi, "A Note on Cement Production and Consumption in Nigeria." Proceedings of the 1974 Annual Conference of the Nigerian Economic Society.

2. Peter Kilby, Industrialisation in an Open Economy: Nigeria 1945 - 1946.
   Cambridge University Press 1969.

3. Source - Cement Manufacturers Association of Nigeria (with head office at WAPCCO).

4. These figures are based on interviews conducted with cement retailers in 1989.
   Source: CBN Survey.

CHAPTER FIVE

5.0 CONTRIBUTIONS OF CEMENT COMPANIES

In chapter four, the relevant data have been analysed to observe the possible trends over time of capacity utilisation rates, the cost structure, sales, profit margins as well as the supply and demand profile and other institutional constraints for cement industry.

In this chapter, the contributions of cement companies in Nigeria is covered undet the following areas.

i. Building and Construaction
ii. Economy
iii. Social Responsibility
iv. Transfer of Technology
v. Employment
vi. Training and Development and
vii. The problems and prospects of cement companies in Nigeria.

5.1 Building and Construction

Building and Construction covers activities such like building of houses of all categories and types, construction of roads, bridges, airports, seaports, dams, agricultural and other industrial projects.

A lot of building and construction companies (Block making industries, concrete industries, civil Engineering companies etc), foreign and indigenous, emerged during the oil boom era. This was due to increase in building and construction work during the period.

Examples included:

The building of houses (offices and residential) at the state capitals of the newly created states in 1976. The network of roads embarked upon by the Federal and State Governments in the late 1970s the Lagos Metripolis network of roads and flyover bridges. Most of the airports in the country were constructed during this period.

The Universal Free Primary Education (UPE) Programmes, the establishment of seven new Universities by the Federal Government in 1976, and the private sector projects.

Although much of the cement used in this period was imported, the cement produced by the Five Companies CCNNL, WAPCCO, Nigercem, Calcemco and Bendel Cement was all consumed by these projects.

During the Second Republic there was the prolification of schools, colleges and universities by the Federal and State governments. Many other housing and industrial projects like: the NPN low cost Housing Programme for each local government in the country, the river basin development authorities, the Federal Capital Territory Iron and Steel Companies, Construction of private industries and residential houses, hotels, schools also increased during this period.

The economic hardships which began from 1983 to date have caused the building and construction industry to depend mostly on the local cement companies, due to high prices and difficulty in obtaining foreign exchange for imported cement: Local Cement Production has been below the demand and at exhorbitant prices during the period under review in

this project. This has caused many of the projects to be abandoned or to continue at a very slow rate.

Today, construction work still continues but at a very slow rate and mostly by the government. For example: DFFRI activities, Minna International Airport, Federal Capital Territory, National Fertilizer Company of Nigeria (NAFCON), Petroleum Refinaries and Petrochemical plants, Iron and Steel Projects, Political Parties Offices all of which are using locally manufactured cement.

The building and construction firms involved in these activities are also contributing their quota to the country through taxes and employment they offer to Nigerians.

5.2.0 Economy

The cement companies have contributed to the economic development of the country in several ways. These include:

5.2.1 Revenue Generation

In his book, Mr. Halidu I. Abubakar pointed out that "Taxation is one of the oldest and commonest source of revenue to government world over. Taxation is not only a source of revenue, it also represents a potent instrument of public policy which serves a diverse role in modern society."[1]

Tax collected from many sources including cement companies in the country is used for the following purposes:

i) Running the local council: Tax in this respect is used to provide the local needs of the people, such as construction and maintenance of roads, drainages, water and electricity.

ii) Supply of social services wanted by the people. For example, education; the money collected is used to pay teachers salaries, build classrooms, offices, provide materials needed for teaching.

iii) Provision of hospitals, medical personnel, drugs and facilities.

iv) Tax is also used to develop agricultural services as well as industrialisation.

During the period under study, three of the seven cement companies, WAPCCO, Ashaka cement and Nigercem maintained rising trends in their respective profit levels (Table 4.8). These profits were obviously taxed by the government.

Personal Income Tax

At present the cement companies employ a total of about 9000 workers. All of these people pay personal income taxes to the government. The CCNNL for example paid on behalf of the staff personnel income taxes to the Sokoto State Government to the tune of ₦433,733 for 1984/1985.[2]

Sales Tax and With-Holding Tax

The cement companies cannot do without making purchases from other sources as well as renting houses. This area fetches a lot of money for the government. For example, sales tax of 2% of each sale is deducted by CCNNL for any purchase made from the unlimited companies as well as private

individuals. The company deducts on the spot 12.5% of rent on each house being rented by the company. In 1983/1984, the company paid sales tax and with-holding tax to Sokoto State government to the tune of N26031.07.

It was estimated that the company would purchase gypsum worth N3 million from the public and this would fetch the Sokoto State Government N66000 as sales tax.

Similar taxes are paid by the other six cement companies to the government.

5.2.2 Foreign Reserves

For the period of 1984 - 1988 and the first quarter of 1989, the cement companies recorded a total sales of N3.259 Billion. All this amount of cement would have been otherwise imported at the expense of the country's foreign reserves. The cement companies therefore saved the country's foreign exchange earnings.

5.2.3 Gross National Product (GNP)

The cement companies which form part of the manufacturing sector, and have operated at the average capacity higher than the national industry average capacity, contributed to the GNP of the country.

5.2.4 Emergence of other Businesses

The cement industry has triggered off the establishment of other business enterprises which either feed cement companies with their products/services or utilise the products/services of cement companies. Examples include:

Packaging companies, gypsum sellers, transporters who bring imported gypsum from the ports to the cement plants, contracting companies and individuals who supply fuels, and other consumables to cement plants, spare parts suppliers etc.

The fore-linkage effects are the emergence of the block industries, concrete industries, construction companies, All of which use cement. A road made by CCNNL helped the Sokoto State Government to site economic ventures along the road like SOKAFAN, a tenery company, Foan industry, Synthetic and Marble industry. Others are: Rice Processing Mills, Toilet tissue industry, public housing estate,

There are hundreds of appointed dealers, distributors and agents for marketing cement for all the seven cement companies. These form another area of business that has been provided by the cement industry.

Other businesses opened up in connection with the cement companies are: Food selling (i.e. provisions soft drinks, meat, foodstuffs etc.), and other essential commodities. Many of them are located near the cement plants to serve the workers and customers. A food seller who was interviewed said he made not less than N200 daily.

All these avenues help the people involved to accumulate capital which, could also be invested in other areas of business to the economic advantage of the country.

5.2.5 Diversification

To broaden their economic base, some of the cement companies have invested into other areas apart from manufacturing and selling of cement.

According to the Managing Director, BCC has diversified into Food Processing, Packaging, Banking and plans to go into concrete products.[4]

The west African Portland Cement has diversified into paints production and Electrical repair works. According to the managing director, Chief E.A Ogunlaye, the two subsidiaries were necessited by the company's import substituting Policy " which we believe will be of immense help to the Country given the current economic reality of Nigeria."[5]. He said WAPCCO had initiated the SAP of its operations long before the government introduction of SAP, expressing delight that the two subsidiaries are now helping to conserve tens of millions of dollars for the country.

The Portland points products subsidiary which produces paints under the brand name 'Santex' now manufactures products like: Santex fine brand, santer matt, Santex Textured, Santex Trowel, Vinyl Matt Emulsion.

Portland Electric Repairs subsidiary specialises in high quality motor rewinding, air conditioning and refrigerators repairs, reactivation of airconditioners, compressors and high tension repairs.

5.3 Social Responsibility

Although many people have argued against social responsibility by business enterprises saying that there is only one responsibility of business; to use its resources and engage in activities designed to increase its profits so long as its stays within the rules of the game i.e. engages in open and free competition, in recent times more and more pressure is being placed on business enterprises to respond to societal problems.

In Nigeria a decree was passed in 1986 to control wastes disposal by manufacturing industries and to control pollution of the environment.

Cement companies have tried to contribute to societal needs apart from their products. Some examples are: The Benue Cement Company as part of its contribution to sports in the country runs a Football club, 'The BCC Lions' which has won many state and National Competitions. The company has continued to allow communities around it to enjoy services rendered in its staff school and clinic. A bore hole has been sunk by the company at Tse-Kucha and plans are underway to expand their water schemes as well as help in electricity supply to the village. A block of classroom would be built at the Primary School in Amua. Recreational facilities such as Club houses and sport facilities are provided for the staff

The West African Portland Cement donated a substantial amount to the Nigeria Olympic appeal fund in 1984. Another donation of N5000 to the Lagos State Government in connection with the State Education Endowment Fund.

The company donated N2000 at the official launching of the N50 million Kwara State Industrial Development Fund (Lagos Zone). It gave N1000 to the Ogun State Committee for disabled. It gave ten tonnes of cement to the Child Care and Treatment Home/School Yaba. A donation of Baby Foods and other essential materials was given to the motherless babies home, Ibadan during the National Independence Anniversly Celebrations in October, 1985. Another donation of beddings and Canned Foods to the Old Peoples Home Yaba. The company gave N1000 to Ijamido Children's Home in Otta during the National Celebration of Nigeria's 25th Anniversely and presented training materials to the Oshomosho Training Centre for the blind on the same day. A present of 200 bags of cement as a contribution to the Jaycees community development efforts for the construction of public toilets in Kaduna town.

Sports and other social amenities are provided for the staff and residents of the surrounding. Community are allowed to use these facilities.[6]

CCNNL Sokoto operates a scholarship scheme for Sokoto State indigenes in schools and colleges.

5.4 Transfer of Technology

Technology has continued to be a vital input in the economic development process. A widely recognised corollary of Direct Foreign Investment (DFI) flows to developing countries is the plan of technology; new production techniques and processes, as well as managerial and organisational know-how.

Technological transfer tends to be superficial. The acquisation process is constrained by the limited ability and capacity to descriminate and acquire what is desired based on limited available information. The services dilema emanating from this condition is that in exceptional cases, where the opportunity exists for complete acquisation, the indigenous scientific and technological manpower necessary for effecting choices for absorption and diffusion is generally in short supply.[7]

The cement companies were established as import substituting industries and the government's major aim was that the technological know how for cement production should be acquired by indigenes of this country. In almost all the companies there is an agreement between the government and the technical partners to handover the operations and management of the company to Nigerians after a specified period of time.

Most of the cement companies have been operating for the past twenty years, but are still dependent on the services of expertriates especially for technical operations: The Nigerianisation Policy of the government has only been implimented with respect to the chief executives of these companies.

Not withstanding the low pace of acquisation of technology at the cement companies, some positive efforts have been made in this directions two cement companies - Benue Cement Company and Nigercem are being run completely by Nigerians.

The managing Director of WAPCO observed that the company had made appreciable contribution to technology acquisation in the country since its establishment "because over company is transfering to Nigeria the expertise for rewinding and refurbishment of sophisficated equipments while our paints company competes favourably in its own line."[8]

Cement companies have always opened their doors to higher institutions for their students in Engineering and Technology for their industrial attachment.

5.5 Employment

Cement companies have contribited in no small measure to the country in respect to employment opportunities for the Nigerian population. The companies currently employ a total of about 9000 workers including managers and operatives.

The Benue Cement Company which employs about 1500 workers is the second largest employer of labour in Benue State after the State Government. The Financial Controller of CCNNL Sokoto in a personal interview disclosed that 500 workers can effectively manage the company but because of unemployment problem the company has been directed to increase the labour force with 350 workers.

5.6 Training and Development

Training and Development of employees by business organisations is not only beneficial to the employees themselves but also to the organisation itself and the society.

To the individual employee, it is a motivation devise and also prepared him for promotion. His attitudes are shelved positively and the knowledge acquired remains with him, it also increases his job prospects and gives him the feeling that the organisation is concerned about his welfare.

To the company, the training ensures greater productivity (all things being equal) and it provides the company with personnel to readily meet its manpower needs.

At the level of society, an enlightened workforce is a productive one which will improve the standard of living of the society.

Cement companies have realised the importance of training and developing their staff and management. All the companies have a training department or a training centre for this purpose. Such training have been effected locally on the job, by regular course work or attachments and planned to incorporate basic operational maintenance skills, supervisory and technical production control and management.

According to the Management report No.9 January, 1984, the Training Department of CCNNL Sokoto for example during the month of January trained a total of 380 man-hours on three courses consisting of brick laying, vulcanization of conveyor belts and practical course for electricians.[9] In view of the importance the company attaches to the training it spent in 9 months up to 31/12/84 the sum of N28,246.14 and also intended to spend in 9 months to 31/12/85 the

sum of N20,000[10] and in 1986 the company also intended to spend in 12 months N29,330.[11]

The various training programmes embarked upon by cement companies helped to increase the productivity of the work force in the country. Some employees who left the companies, or retired from them have started their own businesses and are doing fine.

5.7 Problems

It is apparent from the study of the operations of the cement companies during the review period that they have faced numerous problems that worked against their effective and efficient performance.

The major problems identified were:

i) Lack of spare parts:

Cement companies needed a lot of spare parts because of wear and tear of machineries and equipments owning to the nature of the plants.

For example, crushers, grinding media in the mills, refractory bricks in the kiln, and other spare parts of the machinery and earth moving equipments in the quarry needed to be replaced from time to time.

These spare parts are not produced in the country and have to be imported. There were cases whereby the whole plant had to be shut down due to lack of one spare part, causing heavy losses to the company.

ii) Inadequate power supply:

Cement production require high amount of electrical energy for their operations. There has been a common problem of irregular and short power supply by the National Electric Power Authority(NEPA), the only power source in the country.

iii) Insufficient trained staff:

The cement industry is specialised and the companies are few in numbers so they always employ new staff that require time and high costs for training, usually 2 to 3 years are used to train a staff before he can be allowed to handle certain equipments or processes. The cost of maintaining expertrait is also very high.

iv) Scarcity of Foreign Exchange:

Since the introduction of SFEM, it has been very difficult for the companies to get enough foreign exchange which they require to import spare parts, gypsum and other consumables needed for cement production. The cost of replacing the old and out-dated machinery has gone beyond the companies financial capacity.

v) Transportation Problem:

The high increase in transportation costs in the country within the last four years affected the distribution of cement. The cost of transporting gypsum, fuels and other imported inputs has increased, along with it there was increase in cost of transporting cement from plant site to the market. All these have reflected in the high prices of cement in the market.

vi) Government Policies:

Most of the government regulations and measures directed at revamping the nation's economy were hitting the companies very hard. They have added to their production problems rather than solve them. Government policies hurting the industry include:

(a) The prohibitive increase in royalty on limestone from 5k to N10 per tonne.

(b) Deregulation of cost of greases and oil.

(c) Increase in NEPA's tariff by 800%

(d) Sudden increase in freight charges

(e) Withdrawal of oil subsidy and high interest rates on loans.

The Chairman of Cement Manufacturers Association said their negative development had brought down the production capacity of the cement industry and increased production cost astronomically to the extent that Cement Companies now absorb up to N50 per tonne to cope with customer resistance which will follow higher prices.

vii) Distribution Problem:

The distribution network is insufficient and contains a long line of middlemen dealers/distributors, construction firms, government institutions, individuals, public relations people, traditional institutions and staff, some of who obtain cement allocation under false pretext and take advantage of the supply constraint to make huge profits.

Users of cement in Nigeria pay widely different prices for cement used, depending on whether they obtain directly from the company at ex-factory prices or whether they pay the prohibitive prices asked by retailers in the market. This phenomenon creates structural distortions and insulates the government and some construction firms from full impact of exhorbitant prices. It also tended to open up avenues for financial malfeasance as well as worsen the excess demand situation.

viii) Dust Control:

Dust Control is another problem which endangers the lives of the staff at work in the plants. Apart from environmental standards which are to be maintained, dust represents a loss of materials to the manufacturing process.

iv) Inadequate working capital has been the problem of most of the cement companies.

5.8 Prospects

The problems being encountered by cement companies not withstanding, there exist prospects in the cement industry, some of these prospects are as follows:

(i) Large Deposits of Limestone:

Lime-stone constitutes 95% of the total raw materials used for cement production. This raw material is a natural resource and is available in large quantities in Nigeria. Each of the seven cement companies is cited on limestone deposits that are estimated to last between 50-100 years if they operate at 100% installed capacity.

Gypsum, the imported stone which constitute 4% of the total raw materials is currently being imported by the other six cement companies apart from CCNNL Sokoto, which buys its gypsum locally from private individuals. Gypsum deposits have recently been discovered in Dukal, Gongola State in commercial quantity. These resources of gypsum can be explored using scientific means for mining instead of the local means and this can serve the cement companies.

(ii) The Growing Local Demand for Cement:

At present demand for cement is put at 7.5 million tonnes per annum. When matched with the current supply of 4.2 million tonnes gives the supply gap of 3.3 million tonnes. This supply gap is approximately equal to the

domestic production. There is a ready market for the cement companies to operate their full capacity of 5.2 million tonnes annually. The local demand is expected to grow as the market for cement grows with the level of economic development.

(iii) Foreign Markets:

There are opportunities for the export of cement into the neighbouring countries, especially with the closure of the nearby Onigbolo Cement Company in the Republic of Benin.

(iv) Expansion and Diversification:

The current level of demand for cement in the country can not be met by local companies even when operating at full capacity. Apart from the unutilised capacities, the cement companies can profitably expand to install additional capacities to meet both domestic and foreign markets to earn foreign exchange for the country.

Opportunities exist for both backward and forward integration by cement companies, such opportunities are mining of other minerals, line production from limestone, concrete industries all of which use similar technologies to cement production. Others are spare parts production, construction and agricultural projects.

Cement companies although faced with the problems of insufficient spare parts, inadequate power supply, lack of trained staff, scarcity of foreign exchange, inefficient distribution network, system and dust control,

they made appreciable contributions to the building and construction industry in particular and to the country's overall development in the following areas:

Building and Construction activities are still holding on to the local cement provided by the Nigerian Cement Industry.

Revenue is being generated to the government. There has been foreign exchange savings to the tune of N3,259 billion during the period 1984 - 1989 by cement companies.

Capital accumulated by individuals and business concerns in the cement industry is being profitably invested in diverse business activities to increase productivity in the country.

Employment opportunities have been created for thousands of Nigerians at the cement companies and some technological skills have been acquired by indigenes through experience at work and in training and development programmes of the companies.

Opportunities still exists for the cement industry and given the appropriate attention the cement companies will not only improve their performance but can also profitably source all their raw materials locally, utilise their full capacities to meet present excess local demand and even export their products. There are also potentials for both forward and backward integration by the cement companies.

FOOT NOTES

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CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSION

The following conclusions can be drawn from the study:

Cement Companies in Nigeria have operated below their installed capacity (65 - 75% average), while the total demand for cement estimated at 7.5 million tonnes annually for outstripped the annual supply of 4.2 million metric tonnes.

This short coming is due in part to operational difficulties and partly to inefficient marketing network. The operational difficulties arise from problems associated with insufficient spare parts, inadequate power supply, lack of trained staff, scarcity of foreign exchange for procurring needed inputs, transportation costs, obsolete equipments, inadequate working capital and government policies.

The marketing distribution network is inefficient in terms of long-line of middlemen in the guise of dealers, public relations men, government officials and others who merely purchase cement to sell to consumers.

Despite these problems cement companies made considerable contributions to the building and construction industry in particular and to the country's general development in the following areas:

Building and construction activities are still holding on to the local cement provided by the Nigerian Cement Industry.

Revenue is being generated to the government. There has been foreign exchange savings to the tune of ₦3,259 billion during the period 1984-1989 by cement companies.

Capital accumulated by individuals and business concerns in the cement industry is being profitably invested in diverse business activities to the economic advantage of the country.

Employment opportunities have been created for thousands of Nigerians at the cement companies and some technological skills have been acquired by indigenes through experience at work and in training and development programmes of the companies.

Opportunities still exists for thecement industry and given the appropriate attention, the cement companies will not only improve their performance but can also profitably source all their raw materials locally, utilise their full capacities to meet the present excess local demand and even export their products. These are also potentials for both forward and backward integration by the cement companies.

6.2 RECOMMENDATIONS

Realising the crucial role of cement companies in the building and construction, and in overall economic output, noting the huge demand situation and taking into considerations the present economic realities, the following suggestions are made:

i) The Federal Government should reduce the current tariff on cement inputs to allow cement companies to utilise their full capacities to meet up with the increasing local demand for cement.

ii) Preferential allocation of cement should be stopped with immediate effect because many of these who obtain preferential allocation re-sell at exhorbitant prices to those who really need cement.

iii) Reorganisation of the distribution channels should be employed to infuse some sanity into the marketing of cement. This will eliminate the long line of middlemen.

iv) The ongoing privitization of cement companies should go along with it the reorganisation of their management. Appointment of Board and Management should be done on merits rather than political reasons.

v) The Federal Government should provide technical and financial assistance to keep the plants on stream and thereby facilitate the process of economic recovery. Direct government financial support through provision of guarantees to the cement firms to source loans from internatonal agencies would help the ailing cement companies.

vi) The government and private sector in conjunction with the cement companies should set up a spare parts manufacturing industry to serve the companies and other manufacturing firms in the country.

vii) The training and development programmes of cement companies should be revised or evaluated from time to time to make sure that Nigerians are acquiring the needed technology at a faster rate than it is at present.

viii) Efforts already commenced should be intensified to find alternative local raw materials within the country to replace imported ones.

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