THE IMPACT OF CURRENT ECONOMIC POLICIES ON THE PROFITABILITY OF COMMERCIALISED GOVERNMENT ENTERPRISES: A STUDY OF KADUNA REFINING AND PETROCHEMICAL COMPANY LIMITED (KRPC).

BY

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DEPARTMENT OF BUSINESS ADMINISTRATION;
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ZARIA.

DECEMBER, 1997.

DECLARATION

I, Musa Theophilus Makama Ayuba, hereby declare that this study is my original hand work which to the best of my knowledge and belief has not been presented to this or any University in Nigeria or abroad, by any person for award of any degree. All references have been appropriately acknowledged in the bibliography. I assume responsibility for any mistake, error, omission or commission in this study.

MUSA, T. M. A.

CERTIFICATION:

This project entitled: "**THE IMPACT OF CURRENT ECONOMIC POLICIES ON THE PROFITABILITY OF COMMERCIALISED GOVERNMENT ENTERPRISES: A STUDY OF KADUNA REFINING AND PETROCHEMICAL COMPANY LIMITED (KRPC)**" by **MUSA, THEOPHILUS MAKAMA AYUBA**, meets the regulations governing the award of the degree of the Master of Business Administration of Ahmadu Bello University Zaria, and is approved for its contribution to knowledge and literary presentation.

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In the course of writing this project, some of my departmental facilities e.g. Personal computer and Printer were used. The Head of department, Engr. B. Shehu, tolerated this. I am grateful to him for this.

My family willingly suffered various inconveniences during the course of this project. I am indebted to them.

Above all, honour and glory is given to God, my heavenly Father, for who He is and what He has made me to be.

MUSA, T.M.A.

DEDICATION:

To my Wife, Children and Friends.

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LIST OF ABBREVIATIONS:

ABU - Ahmadu Bello University

AFEM - Autonomous Foreign Exchange Market

AGO - Automotive Gas Oil

BOD - Board of Directors

BOFID - Banks and Other Financial Institutions Decree

BPE - Bureau for Public Enterprises

BPSD - Barrels Per Stream Day

CBN - Central Bank of Nigeria

CEO - Chief Executive Officer

CGS - Chief of General Staff

DTA - Double Taxation Agreement

EBIT - Earnings Before Interest and Tax

ED - Executive Director

FBIR - Federal Bureau of Internal Revenue

FMGN - Federal Military Government of Nigeria

GDP - Gross Domestic Product

GNP - Gross National Product

HHK - House Hold Kerosene

IDR - Import Duty Report

IFEM - Interbank Foreign Exchange Market

IMF - International Monetary Fund

JTB - Joint Tax Board

KRPC - Kaduna Refining and Petrochemical Company Ltd

LPFO - Low Pour Fuel Oil

LPG - Liquified Petroleum Gas

MD - Managing Director

MT - Metric Tonne

MU - Memorandum of Understanding

NDIC - Nigeria Deposit Insurance Company

NEXIM - Nigerian Import Export bank

NNPC - Nigerian National Petroleum Corporation

OMO - Open Market Operations

PHRC - Port-Harcourt Refining Company Ltd

PPMC - Products Pipelines and Marketing Company

PPT - Petroleum Profit Tax

PVI - Products Value Index

ROI - Return On Investment

SAP - Structural Adjustment Programme

SFEM - Second-Tier Foreign Exchange Market

SOE - State Owned Enterprise

TCPC - Technical Committee for Privatisation and Commercialisation

US $ - United States of America Dollar

VAT - Value Added Tax

WRPC - Warri Refining and Petrochemical Company Ltd

% - Percentage

₦ - Nigerian Naira.

ABSTRACT

This project involved the study of Kaduna Refining and Petrochemical Company Limited (KRPC) with respect to the impact of current economic policies on the profitabilitx of Government commercialised enterprises.

The study is aimed at providing useful information on KRPC to its Management and Bureau for Public Enterprises (BPE) as well as lid government in "carefidly managing the privatisation exercise being contemplated in order to ensure that the country obtains its maximum benefits.

Secondary data from primary sources on the past performances of the KRPC plants as well as the macroeconomic indicators of the nation for the recent past years were sourced and relied upon for analysis.

Wide the Fuels plants maintained a fairly stead) capacity utilisation of about 65% with a slight improvement in 1995 to 71.04%, the Lubes plant showed a downward movement with its highest value of 35.19% in 1992 and recording its lowest value of 7.29% in 1995. That of the Petrochemical plant, with the exception of 1993, consistently declined also.

The Products Value Index (PVI), being an efficiency performance index for both the Refining and the Petrochemical plants, increased steadily from its lowest value of41.93% in 1993 to its highest value of 71. 77%) in 1996. This showed a steady improvement in the overall efficiency in the running of the KRPC Rt fining <%f Petrochemical plants, based on the available resources.

The Manufacturing plant capacity utilisations only ranged between 1.287c and 26.22 %! Only in 1991 and 1992 did the ROIs achieved by this outfit meet the NNPC Corporate acceptable value of 20% on its investments.

The general impact of the economic policies on commercialised enterprises therefore had been a resultant high cost of borrowing and sourcing of required inputs (especially imported ones), leading to high cost of products or services rendered and the subsequent decrease in plants capacity utilisations. Tlie bottom line is that profirabilirx is decreased or hindered as advantage could no longer be taken on economies of scale. Also, in the case ofKRPC, the enabling commercial environment is yet to be fully put in place. This has hindered overall competitive performance.

CHAPTER ONE : INTRODUCTION

1.1 AN OVERVIEW:

The Nigerian economy is characterised by a number of socio-economic problems. These problems include: import dependence, dependence on a single economic sector i.e. Oil, weak industrial base, a low level of agricultural production, a weak private sector, dependence on foreign loans, regional inequalities and rural urban migration, sluggish growth, unemployment and underemployment, and absence of a vibrant middle class.[1] What led to this situation can be viewed as follows:

1.1.1 A MIXED ECONOMY:

The country operates a mixed economy. Both government and private sector are actively involved in developmental effort. In the past, government has invested enormously for the provision of Utilities, in the Petroleum, Mining, Petrochemical, Transportation sectors and other basic industries. Whereas the private sector has focussed investment in the areas of Manufacturing, rural agriculture and urban agro-allied industries, commerce and construction. Both the government and private sector jointly own and operate banking, insurance and other service industries. This cooperative approach has led to enormous social and economic investments in roads construction, airlines and shipping services, housing, industrial infrastructure, medical services, education, etc.[2]

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Usman (1994) further observed that unfortunately, these investments were depended on imported inputs. This led to the deterioration of the Nigerian balance of payment position. The general global recession and the drastic fall in Oil prices in early 1980s worsened the situation.[2]

1.1.2 INTRODUCTION OF SAP:

Past successive Nigerian Governments since the 1980s, in realisation of the above, have introduced varied economic policies in an attempt to address the above mentined and to bring the economy on a sound footing. Broad economic recovery strategies were adopted. These were:

- Immediate pruning down of public expenditure
- Reduction of budget deficit
- Encouragement and Boosting agriculture for food production and industrial raw material sourcing
- Creation of special import incentives, etc.

This led to the introduction of the Structural Adjustment Programme (SAP) by the Babangida Administration in 1986. This was a bold step towards achieving the desired economic potential in the shortest possible time. The cardinal aspects of SAP were:

- The rescheduling of national debts
- Correction of the observed over-valuation of the Naira
- Removal of subsidies particularly from agricultural and petroleum products
- Deregulation of interest rate and
- Rationalisation of public Enterprises.

1.1.3 RATIONALISATION OF PUBLIC ENTERPRISES:

In implementing the rationalisation of public enterprises, the government constituted the "Technical Committee for Privatisation and Commercialisation" (TCPC), now known as the Bureau for Public Enterprises (BPE).

Amongst the many public enterprises that eventually were either fully or partially commercialised was the Nigerian National Petroleum Corporation (NNPC) in 1987. Arising from the commercialisation exercise was the restructuring of NNPC. This led to the creation and incorporation of eleven (11 Nos.) subsidiaries under a parent corporate Headquarters. The Kaduna Refining and Petrochemical Company Limited (KRPC) is one of these subsidiaries.

The main objective of the commercialisation exercise was to encourage the profitable operations of these public enterprises. No longer were they to receive grants from the state in order to maintain their operations. They were to operate more efficiently and generate atleast enough revenue to cover their cost of operations.

1.1.4 GUIDED DEREGULATION:

Since the advent of the Abacha Administration, SAP is being gradually modified and replaced with "Guided deregulation". The shift in this has led to either the modification, or determined pursuit of already introduced, or outright abrogation of some economic policies. New policies are being introduced.

For instance, the Federal Military Government of Nigeria (FMGN), in its 1995 budget proposal came out with a new policy on "contract Management and/or leasing of Public Enterprises".[3] Government justification for this new policy is that most of the Public Enterprises, even those declared commercialised, are being poorly managed. Government is of the opinion that these enterprises could be better and profitably managed by the private investors or Entrepreneurs.

Ani (1997), stated "The year's budget stressed sustainable growth and development. Growth and development which would be achieved through private led investments. The strategies designed to achieve sustainable growth and development include stimulating agricultural and food production, ..., restoring competition through **PRIVATISATION/LIBERALISATION** of key growth including ventures such as Power generation, Transmission and Distribution, Telecommunications, Hotels, **OIL**, **GAS**, amongst others. Government will carefully manage the privatisation exercise in order to ensure that the country obtains its maximum benefits".[1]

All the Refineries in the country including KRPC, are being earmarked for either leasing or privatisation, going by the budget speeches of the past three years. The question is, "has KRPC really not been operating profitably since commercialisation"? This project will attempt to answer the above question drawing on the information obtained from this study.

1.2 THE STATEMENT OF THE PROBLEM:

The Nigerian National Petroleum Corporation (NNPC) and indeed Kaduna Refining and Petrochemical Company Limited (KRPC) were declared commercialised by Government in 1987. Government objective for the commercialisation policy is to allow for profitable operations. However, between then and now, government has introduced various economic policies. These policies have impacted on the profitability of all businesses in the country including KRPC. There is the need therefore to find out the extent of this impact and whether or not the commercialisation objective is being achieved.

1.3 THE OBJECTIVES OF THE STUDY

The objectives of this study are to:

i) review the effects of current economic policies on the nation's macro-economic indices

ii, examine the impact of these macro-economic indices on the profitability of commercialised enterprises

iii) examine the performance of KRPC plants after commercialisation.

iv) ascertain whether or not the plants have operated at improved efficiency.

v) determine the profitability of one of KRPC's plants that is fully commercialised, the Manufacturing (Tin & Drum) Plant.

vi) examine whether KRPC is commercialised only in principle or also in practice.

vii) make recommendations based on the above findings.

1.4 SIGNIFICANCE OF THE STUDY

This study will be useful to the Management of KRPC as it could be used as a search light as to the profitability of its plants. Management would be in a position to take further necessary action on the performance of the plant based on the findings contained in this report.

This study also will be useful to the "Bureau for public Enterprises (BPE), the organ vested with the responsibility of implementing the Federal Military Government of Nigeria new policy on contract Management and/or leasing of Public Enterprises.

The content of the report may also aid government in "carefully managing the privatisation exercise in order to ensure that the country obtains its maximum benefits".

1.5 THE SCOPE OF THE STUDY:

This study in consideration of the availability of data, shall be restricted to within the recent past five years (i.e. 1992-1996).

Data covering all the KRPC plants operations shall be sourced and analysed. The study will not cover the operations of the other Nigerian Refineries.

The study on the Oil Refining & Petrochemical Plants will be carried out only by examining the trend in the plants operational performance in terms of the annual total crude oils processed, capacity utilisations and the Product Value

Indices (PVIs) achieved.

The profitability of the Manufacturing (Tin & Drum) plant shall be examined by drawing up its "profit and loss statements" for the years under consideration, from which the return on investment (ROI) will be calculated. The projected "profit and loss statements" at commercialisation for the same period shall be compared.

1.6 RESEARCH QUESTIONS:

The researcher has drawn out the following research questions based on the issues being studied. It is hoped that at the end of the research, it would be possible to find suitable answers/solutions to the research questions:

(i) What macro-economic indices have resulted from the current economic policies?

(ii) How have the macro-economic indices affected the profitability of commercialised enterprises?

(iii) Since commercialisation, has KRPC achieved a steady improvement in its plant utilisations?

(iv) Has KRPC's plant utilisation been efficient?

(v) To what extent has the Manufacturing (Tin & Drum) plant of KRPC, a fully commercialised outfit, been profitable?

(vi) Is KRPC commercialised in practice?

1.7 DEFINITION OF TERMS

1. **LEASING:** This is offering a facility to a second party for use for an agreed rate and conditions for a period of time.

The ownership of the facility may or may not ultimately change at expiration of the lease, depending on the terms contained in the agreement.

2. **COMMERCIALISATION:** *This means operating a going concern* for the purpose of making profit.

3. **FULL COMMERCIALISATION:** This means the enterprise is allowed to operate profitably on commercial basis. It is expected to raise funds from the capital market without government guarantee. Such an enterprise is expected to use private sector procedure in running its business and is subjected to the general regulatory power of the Federal government such as:

(i) Fixed rates: prices and charges for goods and services
(ii) Capitalisation of assets
(iii) Sue and be sued in its corporate name

4. **PARTIAL COMMERCIALISATION:** This means an enterprise operating in such a way as to generate enough revenue to cover operating cost. The government may consider giving the enterprise capital grants to finance its capital intensive projects[2].

In both full and partial commercialisation, no divestiture of government holding is involved.

5. **PRIVATISATION:** This is a process of divesting government holding of an enterprise to private investors (local and/or

foreign). Ownership and management of such an enterprise thus changes. Government objective for this process is for making funds available for injection into other sectors and also promoting efficient management.

6. **RETURN ON INVESTMENT (ROI):** This is one of the indices used for measuring the profitability of an enterprise. It is defined thus:

ROI = profit margin * assets turnover

$$= \frac{EBIT}{Sales} * \frac{Sales}{Assets}$$

$$= \frac{EBIT}{Assets}$$

where EBIT = Earnings before interest and tax.

The higher the ROI, the better because it indicates the efficiency of the firm in using its assets. It matches operating profits with assets available.

7. **PRODUCT VALUE INDEX (PVI):** This is an important performance index in the Refinery industry. It is the ratio of the total revenue realisable from actual products produced to the total revenue realisable from the products planned to be produced. It could also be expressed in percentage by multiplying the ratio by 100. PVI is an important efficiency index in that it considers the quantity of raw material processed as well as the product yield pattern compared to the planned figures. Where the products components and their respective quantities produced are as planned, a PVI of 1

(100%) is obtained. This is an optimal performance. Where less than planned total quantities of products are produced or same total quantities of products as planned but with less valuable components, a PVI value of less than 1 (100%) would result. It is possible to have a PVI of more than 1 (100%). This is when more than planned quantities of products are produced with the yield pattern same as planned or different but in favour of the more valuable components. The PVI values thus could send wrong signals of plant performance when the planned production figures are not realistic. To be realistic in planning the quantities of the products to be produced, the availability of all the required resources (Personnel, Plants status, Funds Material, etc) must be thoroughly considered. This therefore makes the PVI a critical performance index.

1.8 PLAN OF THE STUDY:

Chapter one of this study is the introductory chapter. This gives an overview of the topic as well as the statement of the problem. The objectives, significance and scope of the study are also stated while the research questions are outlined.

The Literature review is contained in Chapter two. In this chapter, current government policies, their relationship with commercialised government enterprises and the place of profitability in these enterprises, are discussed.

Research Methodology is treated in Chapter three. In this chapter, the methods used in data collection as well as analysis are discussed.

Chapter four is the "Data presentation and analysis". The historical background as well as the organisational structure of KRPC are briefly discussed in this chapter. Specific problems faced by KRPC are outlined. The research questions are stated and analysed which are finally followed by the findings of the study.

The Summary, Conclusion, Recommendations and Limitations of this study are contained in Chapter five, being the last chapter. Bibliography and Appendices are given immediately after this chapter.

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CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION:

In the past few years, the Nigerian economic environment has witnessed several transformations. This has been as a result of several economic policies changes in a bit to bring the economic situation of the nation on a sound footing. The country has had to go through the Pre-SAP, SAP and now, the Post-SAP (or guided deregulation) periods.

The various economic policies formulated and implemented during these periods, especially the fiscal, monetary and credit policies, shall be highlighted in this literature review.

2.2 ECONOMIC POLICIES AND GOVERNMENT COMMERCIALISED ENTERPRISES DEFINED.

Oxford Advanced Learner's Dictionary of Current English defines "Economy" as control and management of the money, goods and other resources of a community, society or household; a system for the management and use of resources. It also defines "Policy" as a plan of action, statement of aims and ideals, especially one made by a government, political party, business company, etc. Drawing from above therefore and for the purpose of this study, "Economic Policies" can be defined as plans of action or statements of aims and ideals made by the government of a nation for the control and management of its money, goods and other resources.

Thus, economic policies are about allocation of resources. The allocation process involves the careful management and use of money, people and materials. The process can occur at various levels namely; Worldwide, National, Industry-wide, Business firm and even Personal. These levels are usually classified into two basic categories - **MACROECONOMICS** and **MICROECONOMICS.**

Macroeconomics deals with broad questions at the Worldwide, National and, often, Industry-wide levels. It discusses things like inflation, supply and demand, employment, value of the national or foreign currency and Gross National Product (GNP).

Microeconomics, on the other hand, deals with narrower questions of resource allocation, usually at the business firm level. It discusses questions like which projects to invest in, how much money should be spent, how much to keep on hand and how much to borrow, etc.

Chief Olu Falae, the then Secretary to the Federal Military Government, during a dialogue on "Privatisation and Commercialisation", had this to say when defining government commercialised enterprises and I quote "If government does not want to sell and part of its existing holding, but has decided to give the entity adequate capital requirements, redefines and sharpens its mandate to include commercial efficiency, and allows that enterprise to borrow from the market place, and within reason, adjusts its own tariff, the prices it charges for its products or services, then we say it is commercialised, completely commercialised.

There is "partial commercialisation". It means that the organisation is expected to operate within its own resources, but that it can come to government sometimes for capital funds, because it has not completed its own development" *unquote*[1].

Phoenix Investment Services Ltd, in their report on the Commercialisation of Tin and Drum plant of KRPC, defined "commercialisation" as "the restructuring of an organisation from one pattern of legal or administrative status to another with the intention of generating a certain operating behaviour *and of obtaining a particular kind of result i.e.* the management of organisational environment, resources and end products for a specific purpose which fosters greater generation of wealth for the owners (in this case the state) and improved service or product for the consumer and the public predictability and standardisation of action and the quantification of results of one entity with that of another".

The official definition of Commercialisation by the Federal Authorities is that "the enterprise shall operate as profit making commercial venture without subvention". Those institutions that are only partially commercialised may not be expected to make profits[3].

2.3 THE RELATIONSHIP BETWEEN ECONOMIC POLICIES AND COMMERCIALISED GOVERNMENT ENTERPRISES.

Chief S. B. Falegan, in his article in the Business Times of Monday December 16, 1985, traced the genesis of Privatisation and Commercialisation of government Corporations thus[2]:

In the maiden and most comprehensive review of the state-of-the economy presented to media executives on Wednesday November 27, 1985, the Chief of General Staff (CGS), Commodore Ebitu Ukiwe, revealed, among other things, the following:

-Federal Government's investments in the various parastatals totalled ₦23.2 billion made up of:
 (a) ₦11.43 billion equity investment
 (b) ₦10.42 billion direct loan
 (c) ₦1.4 billion guaranteed loan in local currency.
-Federal Government's subvention to parastatals amounted to ₦11.6 billion. Federal Government's foreign guaranteed loans to the parastatals amounted to ₦802.1 million at the then current rate of exchange.
-Rate of returns in respect of both equity and loans amounted to ₦933.7 million. An amount of ₦67.96 million had been repaid on capital and ₦26.1 million as interest payment.

Commodore ukiwe went further to express government's concern at this dismal picture in the following words; "This administration is reviewing the situation with a view to formulating a **POLICY** of **PRIVATISATION OR COMMERCIALISATION** of some of these parastatals". He went further "If a close look was taken at the returns on government investment in

parastatals and companies in respect of both equity and loans, the results are not satisfactory".

As a policy follow-up, the CGS announced that "Governments will take steps to divest themselves of major equity participation in economic ventures which are better left to private sector".

From the above, it was therefore obvious that there has been over reliance on government funding by parastatals coupled with poor performance and lack of accountability, all of which have not endeared these government owned corporations to public confidence.

For example, the rate of return on capital averaged only four percent. It was on account of this lack of performance either functionally or in terms of service delivery, or commercially in terms of returns that led the Federal Government in 1981 to appoint a number of consulting firms to undertake a detailed study to determine the basis and modality of a new scheme for funding government Corporations and state-owned Companies.

The terms of reference cover thirty-three parastatals, straddling four broad functional sectors namely:

- Transport and Communications
- Public Utilities and Mining
- Agricultural and Agro-allied activities, and
- Commerce and Finance.

The study was undertaken by six Consulting firms as follows:

(1) Arthur Anderson & Co: Five parastatals including NNPC
(2) Co-opers & Lybrand Associates: Four parastatals
(3) Milestone Investment Services Limited: Five parastatals
(4) New Decade Consultants: Six parastatals
(5) PAI Associates International: Eight parastatals
(6) Paul Taiwo & Co.: Five parastatals

The reports of the consulting firms contained a tale of woes. The summary was that much resources had been poured into the parastatals over the years with the results that scarcely justified the large national resources input. Some, which by their functions have derived or generated a great deal of income, failed to show profitability. Some, if not most, did not just operate at any credible level of cost effectiveness and efficiency. In some cases, the government that sets up these parastatals refused to patronise (infact discriminated against) the products of such parastatals.

Table 1 (**APPENDIX 1**) further summarises the astounding findings of the various consulting firms. Except in few cases, most of the parastatals were being run at a loss. In conclusion, it can be stated that:

(1) The Privatisation and Commercialisation of government corporations was and is purely an economic policy that resulted from the dismal performances of the corporations in question. The Technical Committee on Privatisation and Commercialisation (TCPC), now Bureau for public Enterprises (BPE) was set up to implement this economic

policy.

(2) The commercialised Government Enterprises are, just like any other business firm, not operating in a vacuum. They are operating in a dynamic economic environment. The economic policies being fashioned out by government have direct impact on their operations and hence their profitability. Some of these economic policies shall be discussed under 2.4.

2.4 THE PLACE OF PROFITABILITY IN GOVERNMENT COMMERCIALISED ENTERPRISES:

In order to install proper or complete commercialisation, that is, transform a non-profit making enterprise to operate as a profit making commercial venture without subvention, it is maintained that two basic issues must be addressed. These are Structural and Operational reforms[3]. Other issues that need be considered include Training; Condition of Service; Political dimension; etc.

2.4.1 STRUCTURAL REFORMS:

These will require a thorough and careful examination of the enterprise's decree, edict, act or law. Where even they ignore the presence of a "competent management and board" and refer to the ministry or the governor or the president for what is clearly a non major policy issue for approval, such need be expunged. In addition to these, the following will need to be carefully observed:

(i) Mission: A definitive mission statement must be established.

(ii) Relationship with Ministry or Parent Body: This must be defined. A long term frame must be established permitting the State Owned Enterprise (SOE) to operate without reference to or interference from the Ministry. Where government or the ministry fixes prices, it must do so within a broad range with adequate powers for the SOE to alter its prices in relation to its economic circumstances.

(iii) Control: Structure should be redesigned so that the greatest and most pervasive control is exercised not by the ministry but by the Board of Directors. The Board should however, recognised the need to confine itself only to policy issues and to leave routine or day to day operations to the management.

(iv) Financial structuring: This should be reviewed and modified to suit the profit motive. Adequate capitalisation must be arranged. Powers to borrow for especially, working capital, must be adequately specified. Government should however provide adequate grants where necessary. Only operating surpluses or profits built over a number of years should go back to the government. Sales proceeds and other revenues must never be channelled directly to the government as this would immediately deplete the organisation's working capital.

Within the organisation itself, financial management need be restructured. The traditional one line vote operated on a single ledger should be replaced with a series of ledgers designed to support cost/profit centre operations.

It is important to classify the enterprises financial resources (grants, subventions, surpluses, reserves) into owners/shareholders equity, working capital and reserves.

2.4.2 OPERATIONAL REFORMS:

In operating, the enterprise will need to take into account its new found status. Of special interest is:.

- the treatment of depreciation
- treatment of excise duty
- treatment of taxation

Each of these is a burden on the company's operation and reduce profitability. Yet private sector firms suffer them.

2.4.3 OTHER ISSUES:

Training and retraining create the necessary skills to carry out tasks. It can be both for skills (professional) and attitudinal. For any enterprise to succeed, it must regard training as a vital and urgent process of acquiring new skills, renewing existing skills and the generation of an awareness of prospects and problems facing the industry and getting ready to exploit or overcome them.

A comprehensive and good condition of service for staff motivates and generates loyalties for the enterprise from the staff. The condition of service must show clearly that the organisation cares for the staff and recognises effort and dedication as a vital ingredient of the individuals' contribution to the well being of the organisation.

2.5 GOVERNMENT ECONOMIC POLICIES:

In discussing the government current economic policies, attempt shall be made to do so under three eras namely; Pre-SAP, SAP and Post-SAP eras.

2.5.1 PRE-SAP ERA:

2.5.1.1 In his lecture at a seminar on the theme "The Nigerian economy since the Structural Adjustment Programme: Consolidation of gains", V. A. Odozi, Deputy Governor, Central Bank Of Nigeria (CBN), gave a brief and vivid account of the pre-SAP economy and economic policies thus[4]:

2.5.1.2 The Oil-boom of the 1970s brought with it massive oil revenue which the country could not prudently manage. Flushed with more money than they could efficient manage, successive governments both at the Federal and state levels, embarked on huge and expensive projects, many of which were of doubtful utility and viability. Moreover, there were a proliferation of public and private sector firms largely dependent on imported inputs.

2.5.1.3 Another feature of the Oil-boom era was that it witnessed the emergence of widespread imbalances and distortions in the Nigerian economy. For instance, the country was transformed from one dependent on agriculture to one heavily dependent on Oil; Fiscal and external deficits prevailed. Both the heavy dependence on oil and on import rendered the economy vulnerable to external shocks. Therefore, with the collapse of world oil prices in the mid-1981, an economic crises emerged

in Nigeria.

2.5.1.4 The policy environment during the pre-SAP era was said to have had a number of vital missing links and that the policy-mix was far from being optimal. Even worse was the divergence between policy and practice, between stated objectives and actual performance. The observed policy lapses are summarised as follows:

(i) The pursuit of unduly restrictive trade and exchange control policies and measures which, in retrospect, were counterproductive;

(ii) Gross over-valuation of the Naira exchange rate through deliberate administrative action; and

(iii) The lack of the political will to embark upon and resolutely implement warranted economic reform measures.

2.5.1.5 The combination of the above policies lapses resulted in gross mis-allocation of resources, stagnation of non-oil exports, increased reliance on imported items (including food), high incidence of capital flight, etc. These undermined government fiscal integrity, management of the economy and also impoverished the country.

2.5.1.6 The policy response to the emergent economic crisis included:

-Imposition of stringent and comprehensive trade and exchange controls under the Economic Stabilisation Measures of 1982.

-Intensification of the above controls in 1984.

-Proclamation of a state of economic emergency for a period of 15 months effective from October 1985 (i.e. austerity

measures).

- Rejection of the International Monetary Fund (IMF) loan and the subsequent adoption of the traditional (typical) structural adjustment package, designed and implemented by Nigerians.

2.5.2 SAP ERA (1986-1993):

2.5.2.1 Structural Adjustment Programme (SAP) was introduced in July, 1986. As earlier enumerated, its key were:

(i) The achievement of fiscal and balance of payment viability over the short and medium terms;

(ii) Laying the basis for sustainable non-inflationary or minimal inflationary growth; and

(iii) Improving the efficiency of the public and private sectors.

2.5.2.2 The broad strategy of the SAP as an operational concept had the following basic elements:

(i) The setting up of a second-Tier Foreign Exchange Market (SFEM) as a mechanism for achieving a realistic exchange rate for the Naira and ensuring a more efficient allocation of scarce foreign exchange resources;

(ii) Dismantling of price, trade and centralised exchange controls i.e. trade and exchange liberalisation;

(iii) The adoption of tight fiscal and monetary policies;

(iv) Rationalisation of Custom Tariff and Excise Duty regimes;

(v) Rationalisation and selective Commercialisation and Privatisation of public enterprises; and

(vi) Overhaul of the administrative structure.

SAP as a two- year programme, was terminated on 30th June, 1988. The changes fostered by it however continued as a way of life.

2.5.2.3 The economic deregulation ushered in by the SAP in 1986 brought profound changes in the Nigerian Banking System. Phenomenal increase in the licensed banks from 43 in 1986 to 120 in 1991 was witnessed[5].

2.5.2.4 In order to supervise and regulate these bank, the Federal Government promulgated the following decrees:

1, Bank of Nigeria (CBN) Decree No. 24 of 1991 and

2, Banks and Other Financial Institutions (BOFID) Decree No. 25 of 1991.

The provisions of the CBN decree No. 24 of 1991 among other things include:

* Monetary policy
* Determination of Naira exchange rate
* Management of the country external debt, etc: while the provisions of the Banks and Other Financial institutions Decree (BOFID) NO. 25 of 1991 include:
* Granting of banking license
* Determination or setting of minimum capital requirement
* Who should be a bank director
* Control and management of a failing bank or its liquidation.

2.5.2.5 The changes that accompanied the deregulation of the Nigerian economy and the Banking system had both positive and negative effects. In order to contain the negative trends such

as poor productivity, high cost of consumer products, increase in bank frauds both in size and sophistication, etc, Government put in place the following:

(i) Establishment of Nigerian Deposit Insurance Company (NDIC) in 1988 as an insurance agency against bank failures and to ensure more sound and safer banks.

(ii) Introduction of prudential guidelines in 1990 for good management and classification off credit portfolio.

(iii) Several modifications in the foreign exchange market to shove up the rate of devaluation of the Naira.

(iv) Issuance of Stabilisation Securities by the CBN in 1990 on behalf of Banks with excess liquidity

(v) Setting up of Nigerian Export Import bank (NEXIM) in 1991 to provide support to Export of Agricultural and Manufacturing base of the economy.

(vi) Introduction of Open Market Operations (OMO) in 1993.

2.5.3 POST-SAP ERA (1994 TO DATE):

Government policy direction changed from a deregulated economy to a re-regulated economy in 1994.

2.5.3.2 1994 BUDGET: Highlights of the Monetary, Credit and Fiscal policies for 1994 were:

2.5.3.2(i) Monetary & Credit Policy Measures:

-Open Market Operation (OMO) continued to be the major instrument of Monetary management and was conducted largely in government Securities, a large proportion of which was being held by the CBN. Transaction in the instrument was to be conducted mainly with discount houses.

-Cash Reserve Requirement (i.e. ratio of commercial and merchant banks cash deposits with CBN to total demand, savings and time deposit liabilities), a complimentary measure to OMO, continued to be prescribed in 1994.

-A minimum liquidity ratio for both commercial and merchant banks was fixed at 30 percent. The component of treasury bills and treasury certificates in each bank's liquid assets was fixed at a minimum of 10 percent of each bank's deposit liabilities.

-Stabilisation Securities instrument was retained only as a "fall- back position" to augment the other instruments should the need arose. The phased payment of Securities outstanding was considered in the light of developments during the year.

-The Interest Rates were fixed at a range of 12-15 percent for savings-deposit while a maximum lending rate of 21 percent, inclusive of all administrative and other charges, was fixed.

-Only banks which meet the requirement on the following criteria were permitted to extend new credit in 1994:

(a) Specified cash reserves
(b) Specified liquidity ratio
(c) Prudential guidelines
(d) Statutory minimum paid-up capital requirement
(e) Capital adequacy ratio
(f) Sound management.

-Sectoral allocation of credit guideline for both the Commercial and Merchant banks was spelt out.

2.5.3.2(ii) Fiscal Policy Measures:

-Excise duties on some products were introduced[6].

-Tax policy was aimed at encouraging genuine enterprenuers

while improving the enforcement of existing tax laws and the machinery for tax collection.

-A new tax on consumption known as Value Added Tax (VAT) came into effect. States were to benefit from the yield of VAT up to 80 percent of total collection.

-With holding tax on rents, interests, dividends, among others was raised from 5 percent to 10 percent.

2.5.3.3 1995 BUDGET: The policy thrust of the 1995 budget focussed on[7]:

(a) - Intensive revenue collection drive;

(b) - Substantial reduction in the fiscal deficit through curtailment of wasteful expenditure;

(c) - Elimination or drastic curtailment of extra-budgetary spending;

(d) - Reduction in the inflation rate;

(e) - Tight monetary policy stance;

(f) - Adoption of the guided de-regulation of the interest rate regime;

(g) - Adoption of the guided de-regulation of the foreign exchange market through deliberate intervention by the Central Bank of Nigeria (CBN) in order to narrow the gap between official and parallel market exchange rates;

(h) - Expansion of the economy's production base and improvement in the manufacturing sector by the grant concessions and incentives;

(i) - Funding of non- Oil prime movers of the economy and encouragement of agricultural production towards eventual replacement of Oil as the nation's prime foreign exchange earner.

(j) - Transfer of more resources from wasteful recurrent avenues to capital development through generous funding of the productive sectors;

(k) - Consolidation of all Government revenue and expenditure globally in the budget in order to enhance accountability and transparency;

(l) - Formulation of appropriate policy and programme framework for efficient resource allocation; and

(m) - Creation of more jobs and employment and making life more abundant for all Nigerians.

Highlights of the Monetary, Credit and Fiscal policies included:

2.5.3.3(i) 1995 Monetary and Credit Policy Measures:

-Open Market Operations (OMO) continued to be the major instrument of monetary management in 1995 and was conducted largely in government Securities, a large proportion of which was being held by the CBN.

-Cash Reserve Requirement (i.e. ratio of commercial and merchant banks cash deposits with CBN to total demand, savings, time and deposit liabilities)' a complimentary measure to OMO, continued to be used in 1995. The ratio of 6% was retained;

-Liquidity Ratio of 30% for both commercial and merchant banks was retained in 1995. The requirement that the component of Treasury bills and certificates in each bank's deposit liabilities was retained;

-Banks and other financial institutions were required to maintain a maximum spread of 7.5% between their deposit and

lending rates subject to maximum lending rate of 21%;

-Concerted efforts continued o be made in 1995 by the regulatory authorities to deal with defaults and distress in the financial sector. Take overs, restructuring and outright liquidation of terminally distressed banks were promptly applied;

-Merchant banks wishing to undertake commercial banking were free to seek necessary approval from the CBN subject to the stipulated guidelines. The reduced level of ₦10,000 minimum deposit for merchant banks continued to apply;

-The CBN continued also to use moral suasion by holding regular dialogues with banks and other financial institutions and agencies, on monetary policy measures and developments in order to enhance macro-economic performance;

-All the existing prudential guidelines on early recognition of losses and adequate provisions for bad and doubtful debts by commercial and merchant banks were retained in 1995;

-Guided deregulation of foreign exchange market was adopted. The official exchange rate of the country continued to be ₦22 to US $1. However, with effect from 1st January, 1995, the following applied:

* Every company, individual or organisation shall source foreign exchange requirements in the autonomous market;
* The Central Bank of Nigeria shall hold the official foreign exchange, and from time to time, intervene in the autonomous market;
* All Government Parastatals, Government Companies, Agencies and Government majority owned Companies and Organisations, exploration and production Oil Companies and Oil Service Companies, recipients of foreign loans and grants must

continue to maintain these foreign exchange currency domiciliary accounts with the Central Bank of Nigeria which shall purchase such funds as and necessary at the prevailing autonomous rates;

-Operation of domiciliary accounts shall be authorised and export proceeds and other repatriations inflows shall be held in domiciliary accounts maintained with any authorised bank in Nigeria. The domiciliary accounts owners shall have unfettered use of the funds contained therein;

-Interbank autonomous markets were to operate freely and no Oil prospecting company was allowed to operate a foreign exchange market in Nigeria. The actors in the IFEM were the banks and Bureau De Change, with CBN intervening from time to time;

-Bureau de change were allowed to buy notes and coins and travellers cheques freely but only to sell notes and coins up to a maximum of US $2,500 per transaction. The transactions were to be at the autonomous market rate subject to a margin of 2%;

-All Government transactions with the CBN were to be at official exchange rate. Except with the approval of the Head of State, commercial companies were to source their funds in the autonomous market;

-Only bonafide transaction by the Federal and the State Government were to be sourced at the official rate. It therefore followed that for Government awarded contracts, for whatever purpose, the contractors were to source their foreign exchange requirements in the autonomous market;

-As from January 1995, a new policy of contract leasing was to be introduced by government. The contract leasing would

involve both local and foreign entrepreneurs with proven track records and possess the managerial and technical skills peculiar to the enterprises as well as the financial resources needed to manage the enterprises. The enterprises slated for leasing contract management include:

* All Sugar companies
* All Steel mills
* All paper and newsprint manufacturing companies
* All Refineries
* All Petrochemicals enterprises
* All Fertilizer manufacturing companies
* Nigeria Airways
* Any other enterprise as the government may from time to time decide.

-Government was to pursue its full commercialisation policy in respect to designated enterprises.

-As has been the case since September 1992, only banks which met stipulated requirements (see 1994 requirements in 2.5.3.2(i) were permitted to extend new credit in 1995;

-Selected allocation of both commercial and merchant banks were specified;

-In 1995 the structure of Merchant Banks portfolio of financial assets in 1994, continued to be as follows:

* A minimum of 20% of the total credit outstanding was to be of medium and long-term nature with a maturity of less than three years; and
* A maximum of 20% of total credit outstanding was to be of short-term nature, i.e. maturing within 12 months.

-The ratio of rural lending to deposits mobilised in rural communities remained at a minimum of 50% in view of the need

to accelerate rural development;

-The share of commercial and merchant banks total credit outstanding allocated to small-scale enterprises, excluding activities in general commerce, remained at a minimum of 20%. Small-scale enterprises are currently defined as those which total cost, excluding cost of land but including working capital, is above ₦1.0 million but does not exceed ₦10.0 million. These include credit worthy cottage industries;

2.5.3.3(ii) 1995 Fiscal Policy:

The 1995 fiscal policy included the following measures:

-The Petroleum Profit Tax (PPT) Memorandum of Understanding (MU) with the Oil Companies was to be reduced to a simple tax law that can be operated by all tax practitioners. The existing Memorandum of Understanding and joint Operating Agreement with the Joint Venture Operations was reviewed;

-The deduction and collection of tax at source through the withholding tax system continued to be an effective machinery of tax administration. This instrument was also reviewed to guide against tax evasion;

-With the successful implementation of VAT and in order to alleviate the burden of multiple taxes on individuals, particularly the low income group, the personal income tax was reviewed to allowed for higher allowances;

-Failure to pay tax as from 1995 was to attract interest at the prevailing commercial rate in addition to the prescribed penalty for late payment;

-With effect from 1st January, 1995, every party to the Production Sharing Contract (PSC), i. e. NNPC with some Oil producers and Contractors, shall render returns and its tax

direct to the Federal Board of Inland Revenue (FBIR);

-Distribution of VAT was reviewed in favour of the Federal Government. More VAT offices, from 35 to 50 were to be opened. In order to widen the VAT base, all Government Parastatals, Ministries, Agencies and all their Contractors were to register as VAT agents;

-Levies collected from vehicles owners carrying goods from one state to another were to stop henceforth;

-Various tax incentives for the Manufacturing companies, Export promotion, Mining and Agricultural production and Self Assessment Filers were introduced;

-The outgoing 1988-94 Custom and Excise Tariff was comprehensively reviewed, and with effect from February 1, 1995, a new Tariff Structure covering the period 1995-2001 came into effect. Some of the features of the new tariff regime are:

* A narrower range of the custom duty rates;
* Practically no exemption from the rate structure;
* A smaller number of rates;
* More uniform rates;
* Fewer import prohibitions

The 1995 budget was therefore tagged "Budget of Renewal". It was a budget of hope, incentives and liberalisation. It freed the economy from the constraints which inhibited progress.

5.3.4 <u>1996 BUDGET:</u>

The 1996 budget consolidated on gains achieved in 1995. It emphasised the stimulation of production as a basis for consolidating and sustaining the achievements of 1995. The 1996 budget insisted on developing local capabilities in

producing, process engineering and capability in managing the productive system. It laid the foundation for expanded production through the policy of guided deregulation.

Further more, policies and strategies were introduced by government to sanitise the economy. The Failed Bank Decree, the Custom Reforms and consistent official pronouncements on the economy re-echoed government's commitment to transparency and accountability.

In improving the investment climate, restrictive laws were either repealed or removed. The evidence of seriousness in the matter of accountability enunciated in 1995 continued in 1996. These included:

(a) The repeal of the Nigerian Enterprises Promotion Decree and Exchange Control Act of 1962.
(b) Promulgation of Nigerian Investment Promotion Commission Decree.
(c) Promulgation of the Foreign Exchange (Monitoring Miscellaneous Decree 1995).
(d) Establishment of the Autonomous Foreign Exchange Market (AFEM).
(e) Efforts to sanitise the banking system continued unabated.
(f) Reforms at the ports facilitated the clearance of goods and reduce cost of ports users.
(g) Panels set up to examine the operation of the capital market and the insurance industry submitted their reports to government;
(h) On the spot inspection of government projects continued.
(i) Stabilisation of the Exchange rate continued.

(j) Problems of extra-budgetary expenditure and budget deficit were substantially reduced, etc.

2.5.3.5 1997 BUDGET:

The 1997 budget is intended to continue with the main thrust and objectives of the 1996 budget. It stresses sustainable economic growth and development which will be private sector induced. Creation of enabling environment through appropriate monetary, fiscal and external policies continued[1].

The thrust of the economic policies of 1997 is the stimulation of private investment in the country so as to substantially raise the level of production. The injection of private (both local and foreign) investment will enable Government to apply available resources to social development.

Thus, specifically, the policy thrust are anchored on the following:

(a) Encouragement of private foreign investment for growth and development;
(b) Agricultural and food production;
(c) Family economic development;
(e) Privatisation and Liberalisation of key and growth induced ventures.

In order for the policy thrust to have positive impact on the economy, government will continue to focus on:

(1) Improvement of productive capacity and increased production in the country;
(2) Increased production and supply of food items;

(3) Promotion of the development of relevant technological capabilities in aspects of the economy;
(4) Job creation and promotion of industrial peace;
(5) Introduction of incentives to encourage private investment;
(6) Export promotion; and
(7) Continued improvement of conducive investment environment.

Some of the appropriate Monetary, Credit and Fiscal policies drawn up included:

2.5.3.5(i) Monetary and Credit Policy:

The objectives for this policy in 1997 include: reduction in the rate of inflation; higher rate of output growth and employment; strengthening the external sector and the Naira exchange rate. The targets are:

* growth in narrow money (M1) of not more than 13.5%;
* growth in broad money (M2) of not more than 15.7%;
* an increase in aggregate domestic credit (not) of not more than 20.0%; and
* reduced rate of inflation to not more than 15.0%.

The policy instruments are:

-Open Market Operation (OMO) shall continue to be the major instrument of monetary policy in 1997 and will be conducted mainly in government securities;

-Commercial banks shall continue to observe the Cash Reserve Requirements in 1997. Cash ratio shall remain at the 1996 level of 8.0%, the base to which it is to be applied is however expanded to include total deposit liabilities (i.e.

demand, savings and time deposits), certificates and promissory notes held by the non-bank public;

-Minimum liquidity ratio for both Commercial and Merchant banks will be maintained at 30%. However, consistent with the new basis for the computation of the Cash Reserve Requirement, the base on which the 30% liquidity ratio is to be applied shall include total deposit liabilities as well as certificates of deposit and promissory notes held by the non-bank public. The requirement that discount Houses invest a minimum of 70% of their total deposit liabilities in treasury bills to remain in force.

-The removal of administrative controls on interest rates which was effected as 1st October 1996 shall be maintained. However, CBN will continue to influence interest rates through its intervention with various market instruments. Meanwhile, the minimum rediscount rate will be maintained at 13.5% and the Treasury Bill Rate at 12.0% subject to adjustments in the light of prevailing monetary conditions.

-The policy of guided deregulation of the exchange rate system will continue and the two-tier exchange rate system would be maintained but with the ultimate aim of their subsequent merger.

-The abolition of mandatory credit allocation to certain sectors which came into effect on 1st October, 1996, shall remain in force in 1997. In addition, mandatory allocation of credit to rural borrowers and small-scale enterprises is abolished.

-The phased refund of outstanding stabilisation securities held by both commercial and merchant banks which started in 1996, will be sustained in 1997. The minimum paid up

capital requirements for banks which were last fixed in mid-1991, is increased for both commercial and merchant banks to a uniform level of ₦500 million. Existing banks shall meet this requirement over a transitional period of two years, expiring 31st December, 1998. Failure to meet this requirement shall lead to revocation of licences while new banks are to fully comply before being licensed.

2.5.3.5(ii) Fiscal Policy:

Government intends to continue with the fiscal policies of 1996 and consolidate the generous tax incentives in the area of personal income tax, companies income tax and petroleum profit tax. Emphasis is being given to welfare of the citizens as well as boosting investments in certain preferred sectors of Oil and gas.

The policy measures include:

-Enhanced welfare incentive package for tax officers which started at the Federal level in 1995, will continue and all state Tax authorities are enjoined to set defined performance targets and offer incentive bonuses where such targets are exceeded.

-State Governments are to apply the fees payable to tax contractors in improving the tax administration by acquiring the necessary tools for tax management in the states.

-In view of the negative efforts of multiplicity of taxes, government directs the Joint Tax Board (JTB) to publish the list of all approved taxes and levies which can legitimately be collected by each tier of government.

-Any interest receivable in respect of any loan granted by a bank; (a) for agricultural trade or business; (b) to

-Ports and Customs reforms will continue, steps are being taken to eliminate identified few bottlenecks. The "Ports Related Offenses ETC Decree 1996" has been promulgated and a task force for the clearance of undesirable elements at the ports has been set up.

-Efforts will be made to identify importers of non-Import Duty Report (non-IDR) goods still remaining at the ports and those who had cleared their goods without payment of duty.

-With effect from 1st January, 1997, the service charges at the ports of ₦5,000 in the case of all containers and ₦2,000 in the case of all palettes or service charge by whatever name called are suspended.

-Export incentive schemes have been developed and are being implemented vigorously. These include the Duty drawback Scheme, Export expansion grant and Manufacture in-bond Scheme. The export of Yam, Maize, Cassava, Beans and derivatives will be allowed in 1997. Also, the Scheme whereby manufacturers may enter into arrangements with foreign partners to process raw materials into finished goods which in turn will be re-exported to the beneficiary will continue in 1997.

2.6 THE DEVELOPMENT OF PETROLEUM/PETROCHEMICAL INDUSTRY IN NIGERIA:

2.6.1 INTRODUCTION:

Petroleum plays a dominant role in the Nigerian economy. It,s production and export is currently the mainstay of the Nigerian economy, providing almost 90% of is export earnings[9]. Agriculture which traditionally had been the mainstay of the

economy from early fifties and sixties has been pushed to the background.

2.6.2 CRUDE OIL PROSPECTING AND EXPLORATATION:

Crude Oil prospecting began in Nigeria in 1908. A German company, the Nigerian Bitumen Corporation, started exploration in the Arorami area of the present Ondo State. Their pioneering efforts, however, ended with the out-break of the first World War in 1914.

In 1937, Oil prospecting resumed in Nigeria. Shell D'Arcy (the fore-runner of the present Shell Petroleum Development Company of Nigeria) was awarded the sole concessionary rights covering the whole territory of Nigeria. Their activities were also interrupted by the Second World War but resumed in 1947.

In 1956, Oil was finally discovered in commercial quantities at Oloibiri in the Niger Delta. Shell started Oil production and export from its Oloibiri field in 1958.

Oil production and export from the Oloibiri field by Shell was at the rate of 5,100 barrels of Crude Oil per day. The quantity doubled the following year. Crude Oil exports from Nigeria rose to 2.0 million barrels per day in 1972 and reached a peak of 2.4 million barrels per day in 1979. Nigeria attained the status of a major Oil producer, ranking seventh in the world by 1972. Currently, Nigeria is the sixth largest Oil producing country in the world.

2.6.3 GOVERNMENT INVOLVEMENT IN THE OIL INDUSTRY AND THE BIRTH OF THE NNPC:

Initially, government interest in the Oil industry was only limited to the collection of royalties and other dues offered

it from Oil companies and making rudimentary laws to regulate the activities of the industry.

By 1971, a year after the Nigerian civil war, Oil had become very important to the economy. To strengthen and establish government control in the industry therefore, the Nigerian National Oil Corporation (NNOC) was established by decree in 1971, as an integrated Oil Company. It was also in that year that Nigeria joined the Organisation of Petroleum Exporting Countries (OPEC) as the 11th member country. The NNOC had responsibility for both upstream and downstream activities in the industry.

As a result of these developments, government decided on intensive participation in the industry's activities. It was believed that if government had more say in the running of the Oil industry, it could achieve its goals of rapid industrial and commercial development of the country. Today, government participation stands at 60% in Shell, Gulf, Agip, ELF, Taxaco and Pan Ocean, all being major foreign Oil Companies engaged in Nigeria's Crude Oil upstream (exploration and production) activities.

Meanwhile, the Ministry of Petroleum Resources whose functions were mainly regulatory was also running concurrently with the NNOC. On 1st April, 1977, a merger between the NNOC and the Ministry of Petroleum Resources created the Nigerian National Petroleum Corporation (NNPC). NNPC combined the commercial functions of the former NNOC (namely exploration, production, transportation, processing of Oil, refining, marketing of crude oil and its refined products) with the regulatory

functions of the former Ministry of Petroleum Resources.

2.6.4 ORGANIC DEVELOPMENT OF THE NNPC:

The NNPC has continued to evolve new organisational structure with a view to running its business much more effectively and efficiently. In 1985, the Corporation moved from a centralised structure and reorganised into five semi-autonomous sectors each headed by a sector Coordinator. The five Sectors were:

- Oil and Gas
- Refineries
- Petrochemicals
- Pipelines and Products Marketing and
- Petroleum inspectorate

In March 1988, the NNPC was declared a commercial, integrated, international Oil Company. It's current Mission is that **"IT IS A COMMERCIAL INTERNATIONAL OIL CORPORATION, ENGAGED IN OIL AND GAS ACTIVITIES, UTILISING SKILLED MANPOWER AND CURRENT TECHNOLOGY".**

The Petroleum Inspectorate, which had hitherto been an integral arm of the NNPC, was transferred to the Ministry of Petroleum Resources. It still performs its regulatory functions.

2.6.5 THE NEW STRUCTURE:

NNPC now comprises a corporate Head office with six functional Divisions and ten Subsidiary companies charged with the execution of the Corporation's business. It is headed by a

Group Managing Director and six Group Executive Directors directly responsible for:

- Services
- Upstream and Gas Development
- Refining and Petrochemicals
- Finance and Accounts
- Commercial Investments and
- National Petroleum Investment Management Services (NAPIMS).

The Subsidiaries are:

- Nigerian Petroleum Development Company Limited (NPDC)
- Integrated Data Services Limited (IDSL)
- Warri Refining and Petrochemical Company Limited (WRPC)
- Kaduna Refining and Petrochemical Company Limited (KRPC)
- Port Harcourt Refining Company Limited (PHRC)
- Pipelines and Products Marketing Company Limited (PPMC)
- Nigerian Gas Company Limited (NGC)
- National Engineering and Technology Company (NETCO)
- Nigerian Liquified Natural Gas Limited (NLNG) and
- HYSON (Nigeria) Limited in affiliation with CALSON (BERMUDA) Limited.

The eleventh subsidiary, the **ELEME PETROCHEMICALS COMPANY LIMITED (EPCL)**, was early this year, 1997, transferred to the Ministry of Petroleum Resources.

This new structure was designed to place the Corporation in a firm position to compete favourably in the international environment, in line with its commercial posture.

2.7 CONCLUSION:

In this chapter, an attempt has been made to define the subject matter or key words contained in the project topic. These include "Economic Policies" and "Government Commercialised Enterprises". The relationship between these phrases was examined. The place of profitability in government commercialised enterprises was discussed. Then the current government economic policies and the development of the Nigerian Petroleum/Petrochemical industry were outlined.

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CHAPTER THREE: RESEARCH METHODOLOGY.

3.1 INTRODUCTION:

Scientific problems can be solved only on the basis of data[1]. it is therefore necessary that a research design be capable of producing the data required for the solution of the identified problems. In this chapter therefore, the methods used in data collection and analysis shall be discussed.

3.2 METHODS USED IN DATA COLLECTION:

In discussing data collection methods, we need to know the kinds of data that exist. Data are classified into two namely: **PRIMARY** and **SECONDARY** data. There are also primary and secondary sources of data.

3.2.1 PRIMARY DATA:

These are data expressly collected for a specific purpose. The collection of facts and figures relating to the average age of students in a particular class or school provides primary data. The main advantage of obtaining such data is that the exact information wanted is obtained.

3.2.2 SECONDARY DATA:

These are data whose initial compilation was meant for some other purpose, say for instance, administrative reasons, but which are being used for a different purpose. For example, details of imports and exports are compiled by the importers and the Department of Local Customs and Excise officers. This material is obtained for administrative reasons. It is used

however, for compiling quite a large number of statistics relating to overseas trade, including for example, import and export price indices. Secondary data therefore need be used with caution as they may not give the exact kind of information needed and also may not be in the most suitable form.

3.2.3 **SOURCES OF DATA:**

Primary sources of data are those data provided by the person that generated the data. If this is not the case, the data becomes that of the Secondary source. For example, the data collected to determine the average age of students in a class if provided by the person that collected them, they are of primary source. If however they are provided by a middle man, the data are of Secondary source. Data that are of Secondary sources may be subject to some form of distortion.

3.2.4 **DATA COLLECTION METHODS:**

The following cover the most important methods of collecting data:

1. Personal Interviews
2. Questionnaire
3. Observation
4. Reports
5. Experimentation Results

3.2.4.1 **PERSONAL INTERVIEWS:**

This is a method of collecting data by asking questions and recording the response/answers to the questions. It could be through face to face contact or by Radio, Television or

Telephone. Face to face personal interview could be time consuming and costly. People interviewed are not likely to open up and offer sincere responses for fear of being associated to or identified for the views they hold. Facts or data arising from this method however can be easily cross checked and authenticated. Asking questions by Telephone is said not to be a very good method. This is because people who possess telephone already form a biased sample. Telephone interviews are, however useful for certain kinds of radio research.

3.2.4.2 **QUESTIONNAIRE:**

This takes the form of a list of questions prepared and administered. Questionnaires could be structured or unstructured. Structured questionnaires are those whose questions have a number of possible answers only one of which the respondent is to indicate agreement. That is, the respondent is guided as to his/her response, the questions are not open ended. The unstructured questionnaires are those whose questions are not followed by possible answers but the respondents are expected to fill in their answers.

Structured questionnaire is easy to fill and thus a high response is likely to be obtained once administered. Also, collation and analysis of data is easier. One major disadvantage however, is that the respondents true or exact views are not captured, unlike the unstructured questionnaire.

Questionnaires are administered either by post or to be filled

in by enumerators. For postal questionnaires, unless the respondent has an interest in answering it or is legally bound to do so, it is generally unsatisfactory. Few replies are obtained and are of a biased nature. Questionnaires to be filled in by Enumerators is a more satisfactory method. The Enumerators or field workers can be briefed so that they the "right" answers; and they will fill in the questionnaires more accurately than would the respondents themselves.

3.2.4.3 **OBSERVATIONS:**

This method of data collection entails sending observers to record what actually happens while it is happening.

3.2.4.4 **REPORTS:**

These may be based on observations or informal conversations. They are usually incompatible and biased. In certain cases however, they may be useful.

3.2.4.5 **EXPERIMENTATION RESULTS:**

This is a method of data gathering whereby certain variables are controlled while others are allowed to interact either in a natural or artificial environment and the results observed and recorded using the appropriate scale. This method is of greater interest to the production Engineer, the Agronomist and other applied scientists than the student researcher.

3.3 METHODS USED IN DATA ANALYSIS:

Data become more useful after they have been analysed. Analysed data is information. Data analysis involves

converting a series of recorded observations (data) into descriptive statements and/or inferences about relationships[2].

Data analysis involves editing, generating new variables, tabulating and calculating or summarising statistics. There are also many statistical methods for data analysis. Some of these include:

(i) Charts and Graphs
(ii) The measures of central terdency
(iii) Measures of variation
(iv) Measures of association/independence
(v) Tests of significance
(vi) Others (Frequency distributions, Cross breaks, Contingency tables, etc).

3.3.1 CHARTS AND GRAPHS:

Graphs are visual representation of data . Complex collection of data can be easily understood when presented in a graph. Relationships between variables can be demonstrated with the aid of a few well drawn graphs. Types of graphs commonly used are:

- Line graphs
- Column and Bar charts
- Histograms
- Pie Charts, etc.

3.3.1.1 LINE GRAPHS:

A line graph is normally used to present a picture of how a measurement changes over time. For example, the level of funding KRPC may be plotted against the respective years.

3.3.1.2 **COLUMN AND BAR GRAPHS:**

These are used to compare two or more measurements. They are basically the same except that bars run horizontally while columns, vertically.

3.3.1.3 **HISTOGRAMS:**

A Histogram is a special type of column graph. It shows how variables of a given object or process are. A histogram tells whether the distribution is normal, skewed to the left or to the right. It also helps to compare measurements with the "expected" distribution. The expected can be production standards or specification for a piece of machinery.

3.3.1.4 **PIE CHARTS:**

Pie Charts are used to show how "total" amounts are apportioned. They illustrate how any "whole" is divided up. For example, pie charts are often used to demonstrate the proportions of the various components of any budget, be it Local Government, State, National or any organisation.

3.3.2 **MEASURES OF CENTRAL TENDENCY:**

These include:

- Arithmetic mean
- Median and
- Mode.

3.3.2.1 **ARITHMETIC MEAN:**

This is also called simple average. It is obtained by summing up all the items to be averaged ard dividing their sum by the number of the items.

3.3.2.2 **MEAN:**

This is the value which is exactly midway between the lowest and the highest values when arranged in either ascending or descending order of magnitude. If the number of items is odd, then the median value is that which occupies the (n+1)/2 position.

3.3.2.3 **MODE:**

The mode is that item that is most frequent. For a manufacturer of certain wares like shoes, pants, trousers, etc, the modal value is more useful and informative than the mean or median. A mean size of a shoe in certain population may have no one at all to wear it whereas the median may have only one person that it will fit!

3.3.3 MEASURES OF VARIATION:

These include:

- Range
- Mean Deviation
- Standard deviation.

3.3.3.1 **RANGE:**

This measures the extent of dispersion of values in a given distribution. The higher the range, the more dispersed are the values. It is calculated as difference between the highest and the lowest.

3.3.3.2 **MEAN DEVIATION:**

The mean deviation is the arithmetic mean of the deviations of

all the values in the distribution from their mean. It is computed thus:

i) Compute the mean

ii) Subtract the mean from each value to get the deviations

iii) Sum up the deviations and

iv) Divide the sum by the number of items summed.

For example, 4,7 3, & 10.

Mean = (4+7+3+10)/4 = 6.

Deviations are:

4-6 = -2

7-6 = 1

3-6 = -3

10-6 = 4

Sum(if signs are not ignored) = 0

Sum(if signs are ignored) = 10

Therefore Mean Deviation = 10/4 = 2.5

3.3.3.3 **STANDARD DEVIATION:**

The standard deviation measures the extent to which values are dispersed from the mean. In this case, the deviations from the mean are squared, the sum of which is divided by the number of items and the square root value of the resultant value is computed. The higher the standard deviation, the more dispersed the distribution.

3.3.3.4 **MEASURES OF ASSOCIATION/INDEPENDENCE:**

These include:

- Correlation Coefficient
- Regression analysis

- Chi- Square

As the general name indicates, these measure the degree or extent of association or dependability between two or more variables. These tools are often applied when the data generated or gathered give a scattered diagram when plotted. The degree of association has a value between zero and one. It is 1.0 when the variables have a complete or direct relationship with one another; and zero (0.0) when there is no dependence whatsoever.

3.4. CONCLUSION:

In this chapter, types and sources of data have been discussed. The methods used in data collection as well as analyses were also discussed.

The topic of this Research project necessitates the research methodology to be **HISTORICAL**. Secondary data obtained from primary sources shall be relied upon. In analysing the data, tabulating, calculating, generating new variables, charts and graphs shall be the tools that will be used.

REFERENCES:

1. Osuala, E. C. (1987): Introduction to Research Methodology; Africana-FEP Publishers Limited; pp. 61-89; 118-136.
2. Centre Piece Consultants (1996): TQM Orientation lectures notes for KRPC officers.

CHAPTER FOUR:

DATA PRESENTATION AND ANALYSIS.

4.1 INTRODUCTION:

The Kaduna Refining and Petrochemical plant being an integrated complex, the raw materials (Crude Oils) enter at the starting units (Crude Distillation Units 1&2 otherwise known as CDU-1&2, and flow through the other downstream units along which various products are made. The Manufacturing (Tin & Drum) outfit, however, is distinct, producing completely different type of products. Thus in presenting and analysing the data obtained for this study, these plants (Refining/Petrochemical and Manufacturing Plants) shall be treated separately.

4.2 HISTORICAL BACKGROUND OF KRPC:

Following the commercialisation of the Nigerian National Petroleum Corporation (NNPC) in 1987, the Kaduna Refining and Petrochemical Company Limited (KRPC) was incorporated in 1988 as a subsidiary of NNPC. Before then, it was known as the Kaduna Refinery, which was commissioned in 1980[1].

4.2.1 VISION, MISSION & OBJECTIVES:

KRPC as a commercialised entity, has the vision of being "THE PRIDE OF THE NATION". It's mission statement states thus:

"KRPC IS IN THE BUSINESS OF REFINING CRUDE OIL INTO HIGH VALUE PETROLEUM AND PETROCHEMICAL PRODUCTS AND ALSO MANUFACTURING PACKAGING PRODUCTS EFFICIENTLY".

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KRPC's major objectives as contained in its 1997-2001 strategic plan document, are:

1. ENSURING CONTINUOUS PRODUCTS AVAILABILITY;
2. ENSURING EFFICIENT PLANT OPERATIONS;
3. ENSURING HIGH SAFETY STANDARDS AND ENVIRONMENTAL PROTECTION;
4. DEVELOPING AND MAINTAINING A SKILLED. HIGHLY MOTIVATED AND DEDICATED WORKFORCE; AND
5. ENSURING A RESPONSIBLE, EFFECTIVE AND COMMERCIAL CORPORATE IMAGE.

4.2.2 KRPC PROCESS PLANTS:

KRPC's major process plants are three in number in addition to several other supportive facilities[2]. These process plants are:

i) Refining Plant;
ii) Petrochemical plant; and
iii) Manufacturing (Tins & Drums) plant.

The raw materials to products flow diagram of these plants is as provided in **APPENDIX 2.**

i) The Refining Plant:

This plant is made of two sections namely the **FUELS** and the **LUBES** sections.

The Fuels section was commissioned in 1980. It had an installed capacity of 50,000 barrels of Nigerian Crude Oil per stream day. The capacity was increased in 1986 to process 60,000 Barrels Per Stream Day (BPSD). This section uses

indigenous (Escravos) crude oil (54.55% of the total crude oil requirement) as its basic raw material to refine conventional white oil products. These products include:

- Liquified Petroleum Gas (LPG);
- Premium Motor Spirit (PMS);
- House-Hold Kerosene (HHK);
- Automotive Gas Oil (AGO);
- Low Pour Fuel Oil (LPFO); and
- Elemental Sulphur.

The Lubes section was commissioned in 1983 with an installed capacity of 50,000 BPSD of Lagomar Crude Oil (Venezuele), Kuwait Crude Oil and Arabian Light Crude oil (Saudi Arabian) as basic raw material. Lagomar crude was processed from commissioning up to 1989 when it was substituted with Arabian Light crude which is currently being processed. This crude constitute 45.45% of the total crude oil requirement of KRPC. The products from this include various grades of:

- Base oils;
- Waxes; and
- Asphalt.

ii) <u>The Petrochemical Plant:</u>

The Petrochemical plant was commissioned in March 1989. The plant is designed to produce 30,000 metric tonnes of Linear Alkyl Benzene (LAB) per year.

The basic raw materials for this plant are **REFORMATE, KEROSENE AND HYDROGEN.** These are all obtained from the Refining plants. This therefore ties the performance of the plant to those of

the Refining plants.

The products from this plant include:
-Linear Alkyl Benzene (LAB);
-Kerosolvent;
-Heavy Alkylate;
-Heavy/Light Reformate;
-Benzene;
-Toluene; and
-Toluene concentrates.

In addition, the plant has the capacity to produce **NITROGEN** which is supplied to the Refining plants and Research institutions.

ii) Manufacturing (Tins & Drums) Plant:

The Manufacturing plant was commissioned along with the Refining (Fuels) plant in 1980. It has a design capacity to produce 2,400 Tins and 840 Drums per hour concurrently. At commissioning, the plant products were meant only for filling of Kerosene (in Tins) and Asphalt (in Drums) for onward delivery to the final consumers of the contents.

In August, 1987 however, the plant was declared "**FULLY COMMERCIALISED**". This meant the plant was to be semi-autonomous, having its Board of Directors, Structure with a separate accounting arm, operating more efficiently to make profit, whose Chief Executive was to report directly to the KRPC Managing Director. It's products since then, are being

sold either filled or empty. The main objective of the commercialised Tins and Drums plant is to obtain an optimum Return On Investment (ROI). The proposed organogram for this plant at commercialisation is as provided in **APPENDIX 3.**

The basic raw materials used in the Manufacturing plant include **TIN PLATES, SOLDERING COILS, STEEL COILS, THINNER, PAINTS, PLUGS, FLANGES, ETC**, all of which except the last four are imported.

The products from this plant are:
- Tins (18-litre); and
- Drums (200-litre).

The plant also offers the following services:
- Wax moulding and packaging (5 Kg rectangular slabs packed in cartons); and
- Kerosene and Asphalt filling.

The Manufacturing (Tins & Drums) products are being marketed by KRPC. Their main outlets are for filling of petroleum and allied products and Vegetable Oils.

.3 **ORGANISATIONAL STRUCTURE OF KRPC:**

The company is 100% owned by the Nigerian National Petroleum Corporation (NNPC), a Federal Government of Nigeria parastatal.

KRPC is structured into two main divisions namely: Operations and Services, each headed by an Executive Director (ED) who

report to the Managing Director (MD) being the Chief Executive Officer (CEO). Under the Executive Directors are departments whose heads report directly to them. However, there are some departments reporting directly to the Managing Director. The details of KRPC immediate past and present structures are as provided in **APPENDICES 4A & 4B**.

4.4 SPECIFIC PROBLEMS FACED BY KRPC:

Some of the problems faced by KRPC in the recent past and currently include:

(1) **INADEQUATE SKILLED STAFF**. This has necessitated in the past few years, the hiring of expatriate staff services at outrageously higher cost which has impacted negatively, on the cost effective operations of the Company.

(2) **DECLINING STAFF MORALE**. This is partly tied to 1 above as staff training programmes are not adequate. Also, constant rationalisation exercises leading to staff retrenchment, inadequate remuneration as well as benefits, etc, contribute to this.

(3) **POOR STATE OF THE PROCESS PLANTS**. Inadequate metering facilities for plant and utilities monitoring is part of this problem. The poor state of the process plants has led to the inability to continuously provide sufficient utilities for plants operations resulting to some units' inability to run at planned throughput.

(4) **DELAYS IN IMPLEMENTATION OF CAPITAL PLANS** due to bureaucracy in approvals and limited implementation capacities. This, in whole, has led to problem 3 above

and contributed greatly, to problems 1 & 2 also.

(5) **DELAYS IN APPROVAL OF PLANS AS WELL AS RELEASE OF FUNDS** by both NNPC Corporate Headcuarters and Government for both Operational and Capital projects requirements to support efficient operations. Related to this is delay in obtaining foreign exchange to import essential spare parts and chemicals.

4.5 RESEARCH QUESTIONS, DISCUSSIONS & ANALYSES:

All together, six research questions have been outlined in this study. Each of these questions shall be stated, discussed and analysed based on the data or information obtained.

4.5.1a WHAT MACRO-ECONOMIC INDICES HAVE RESULTED FROM THE CURRENT ECONOMIC POLICIES?

4.5.1b Table 2 below contains selected macro-economic performance indicators resulting from the government current economic policies.

The introduction of Structural Adjustment Programme (SAP) in 1986 with economic deregulation as one of its cardinal objectives brought profound changes in the Nigerian Banking system. The increase in the number of licensed banks from 43 in 1986 to 120 in 1991 had both positive and negative effects. It created enormous job opportunities, a competitive environment and enhanced quality of service delivery. However, the banks benefitted from incidence of high interest rates at the expense of the economy as a result of high cost of borrowing. This contributed a lot to poor productivity and

cost of consumer products.

Table 2 : Selected Economic Performance indicators (1992-1997):

S/ No	Economic Indicators	1992	1993	1994	1995	1996	1997 **
1.	Inflation rate (%)	44.6	57.2	70.0	72.8	28.0	15.0
2.	Agric Sec growth %	4.5	2.5	1.6	3.4	3.79	N/A
3.	Man. Sec. growth %	2.6	2.3	(5.0)	5.5	0.7	N/A
4.	Exch. Rate (1$= N)						
	-Official	17.3	22.18	22.0	22.0	22.0	22.0
	-Parallel Market	18.8	6.2	85.0	80.0	80.0	N/A
5.	Int. rate max. %						
	-Commercial banks	48.1	61.7	21	21	21	N/A
	-Merchant banks	31.2	39.7	21	21	21	N/A
6.	Fiscal Surp./(Def.) in Billion Naira	(44)	(101)	(81)	1	37	38
7.	Naira deprec. (%)	42.7	21.6	0.7	S	S	S
8.	GDP (%)	4.0	3.0	1.3	2.2	3.25	5.5

Source: Previous budgets briefings; ** Budget figures

S = Stable

During the SAP period up to 1993, the operations of the monetary, credit and fiscal policies left much to be desired. The ever increasing supply of money in the country led to persistent **INFLATIONARY TRENDS** as there was no corresponding increase in the production of goods and services. Government excess expenditure in non-productive areas of the economy increased money supply and inflation. Government also tended

to increase money supply to finance its deficit budgets. Persistent increase in the systems credit also allowed excess credit granted to various sectors, representing excess supply of funds in the hands of the banking sector. **ALL THESE LED TO INFLATIONARY TREND.**

An increase in the inflationary rate spread between the deposit and lending rates had an effect of wiping off bank profits. This therefore led to **INCREASE IN BANK COST OF CREDIT TO SURMOUNT THE INFLATIONARY TREND.**

Within 1994, basic domestic economic indicators could not respond positively to the policy change from a deregulated economy (1986-1993) to a re-regulated economy . For example, inflation rate hit 70% from 57.2% of 1993. Growth in Agricultural sector decreased from 2.5% of 1993 to 1.6%. **THE MANUFACTURING SECTOR RECORDED A NEGATIVE GROWTH OF 5% IN 1994 FROM THE 2.3% GROWTH IN 1993.**

The poor performance of the economy in 1994 was not unconnected with the influx of finished goods especially fairly used cars, imported food items as well as declining prices of Oil in the international markets. A major domestic influence was principally the increase in the pump price of petrol from ₦3.25 to ₦11.00 per litre. The Fiscal operations of government in 1994 showed some imbalances due mainly to dwindling government revenues/fiscal indiscipline (recorded fiscal deficit of ₦81 billion by end of 1994) and the depreciation of the Naira exchange rate in the parallel market.

In addition, the political situation estranged the interest of international community and made any form of investment unattractive. Also, the widely reported cases of distress and distrust in the banking sector continued to make the average Nigerian suspicious even of bankers. These aggravated the already deteriorating economic situation.

Government decision of adopting a guided deregulation as economic policy in 1995 which has continued up to 1997 has so far achieved a good measure of macroeconomic stability as reflected in the economic indices in table 2. Most indices have moved in the right direction

4.5.2a **HOW HAVE THE RESULTANT MACRO-ECONOMIC INDICES AFFECTED THE PROFITABILITY OF COMMERCIALISED ENTERPRISES?**

4.5.2b The introduction of Structural Adjustment Programme (SAP) in 1986 with economic deregulation as one of its cardinal objectives brought about incidence of high interest rates resulting to high cost of borrowing. This, together with the high exchange rates, contributed a lot to high cost of consumer products and poor productivity.

An increase in the inflationary rate spread between the deposit and lending rates had ar effect of wiping off bank profits. This therefore led to increase in bank cost of credit to surmount the inflationary trend. This increased cost of funds was passed on to manufacturers who in turn passed them on the consumers in the form of higher prices. Those

commercialised enterprises which could not easily change or adjust their tariffs for products or services rendered as dictated by the prevailing economic trend, had their profitability and infact, their survival, geopardised.

The economy in general, witnessed serious macroeconomic problems, leading to low capacity utilisation, growing unemployment, heavy debt burden, accelerated inflation, intensified exchange rate depreciation as well as high and perverted regime of interest rates. The net effect is that the profitability of the commercialised enterprises have been threatened.

The decision of government in 1995 however, to adopt a policy of guided deregulation of the economy with checks and balances has gone a long way in achieving a measure of macro-economic stability, creating a conducive environment for planning which is likely to improve the profitable operations of organised businesses.

4.5.3a **SINCE COMMERCIALISATION, HAS KRPC ACHIEVED A STEADY IMPROVEMENT IN ITS PLANTS UTILISATIONS?**

4.5.3b In discussing and analysing this question, total quantities (planned and actual) of Crude oils (Escravos Crude oil & Arabian Light Crude oil) processed for the years 1992 to 1996 were obtained[1]. These data are contained in Table 3 below.

The capacity utilisations of the Fuels plant, Lubes plant and

the Petrochemical plant, as given in the KRPC annual reports for the respective years are also contained in Table 3. The average Refining (Fuels & Lubes) capacity utilisations were calculated.

The average capacity utilisations for the Refining (Fuels & Lubes) plants were determined by dividing the respective years total crude oils processed by the total annual installed quantity and multiplying by 100.

Table 3: Selected indices on KRPC Plants (Refining & Petrochemical) performances:

S/NO	PERF. INDEX	1992	1993	1994	1995	1996
1.	Total crude processed ('000MT)	2767.16	2558.01	2506.50	2275.81	2670.79
2.	Capacity utilisation (%):					
	-Fuels Plant	63.80	66.27	65.07	71.04	65.50
	-Lubes Plant	35.19	25.18	21.74	7.29	9.98
	-Average Ref.(F&L)*	56.58	52.31	51.25	46.54	54.61
	-Petrochemical Plant	27.60	53.68	53.06	41.89	29.46
3.	Products Value Index (PVI)%	64.24	41.93	50.07	60.38	71.77

SOURCE: KRPC ANNUAL REPORTS.

* BASES:

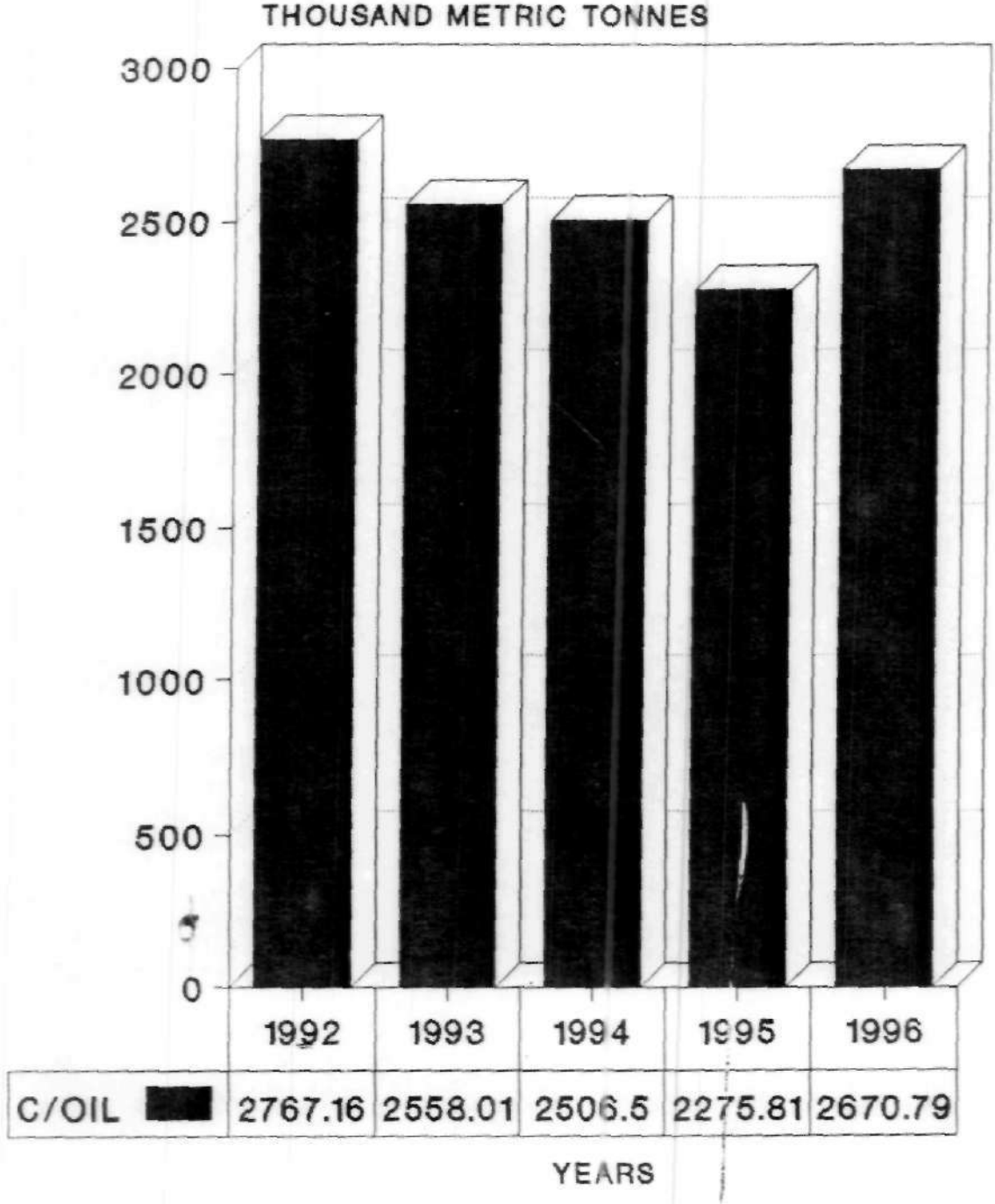
-Fuels (CDU-1) plant operates at 60,000 BPSD for 330 days = 2,636,555 MT of Escravos Crude Oil processed.

-Lubes (CDU-2) plant operates at 50,000 BPSD for 330 days = 2,253,954 MT of Escravos Crude Oil processed.

The total crude oils processed during the years under study are presented graphically in Figure 1a. The Capacity utilisations achieved during the same period for the Fuels plant, Lubes plant and average Refining (Fuels & Lubes) plants are also presented in Figure 1b, while that of the petrochemical plant is presented in Figure 2.

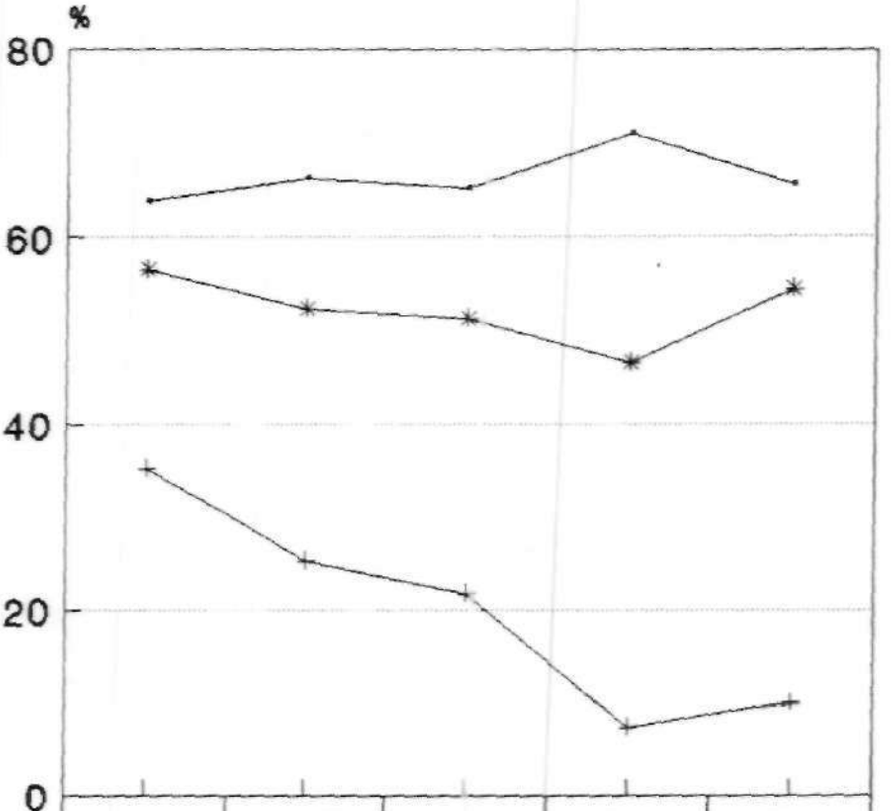
Figure 1a gives a general trend of the performance of the Refining and Petrochemical plants over the years under study

FIG. 1a: KRPC PLANTS PERFORMANCE
TOTAL CRUDE OILS PROCESSED



Source: KRPC annual reports

FIG. 1b: KRPC PLANTS CAPACITY UTILISATIONS (%)



	1992	1993	1994	1995	1996
F/PLANT	63.8	66.27	65.07	71.04	65.5
L/PLANT	35.19	25.18	21.74	7.29	9.98
AV. REFINING	56.58	52.31	51.25	46.54	54.46

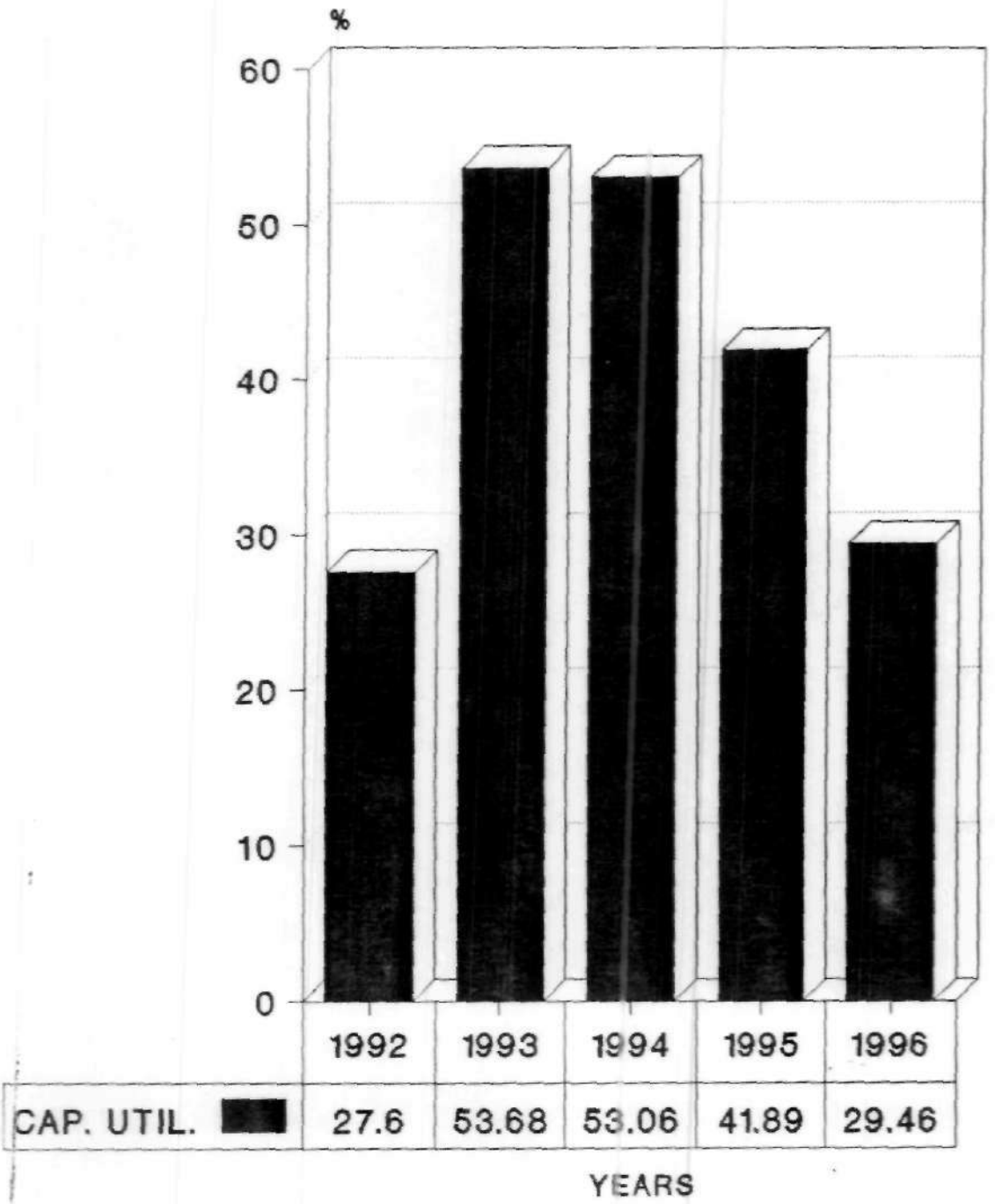
YEARS

F = FUELS — F/PLANT — L/PLANT

L = LUBES — AV. REFINING

Source: KRPC annual reports

FIG. 2: KRPC PLANT PERFORMANCE
PETROCHEMICAL PLANT CAP. UTILISATION (%)



Source: KRPC annual reports

in terms of capacity utilisation. The trend shows a gradual decline with only a slight improvement in 1996. Figures 1b & 2 give the individual plants capacity utilisations over the same period. The Fuels plant has maintained a fairly steady capacity utilisation of about 65% with a slight improvement in 1995 (71.04%).

The Lubes plant capacity utilisation over the years has been on a downward movement. It had its highest value in 1992 (35.19%) with a recorded lowest value of 7.29% in 1995. This contributed adversely to the average refining capacity utilisation resulting to the observed downward trend.

The Petrochemical plant, being solely dependent on the Refining plants for its feedstocks and utilities supply, expectedly cannot show a better trend in its capacity utilisation. It showed a remarkable improvement in 1993 only to consistently decline subsequently.

1.5.4a HAS KRPC'S PLANTS UTILISATION BEEN EFFICIENT?

1.5.4b The most important efficiency index in Refinery operations is the Product Value Index (PVI). This has earlier been defined in Chapter one.

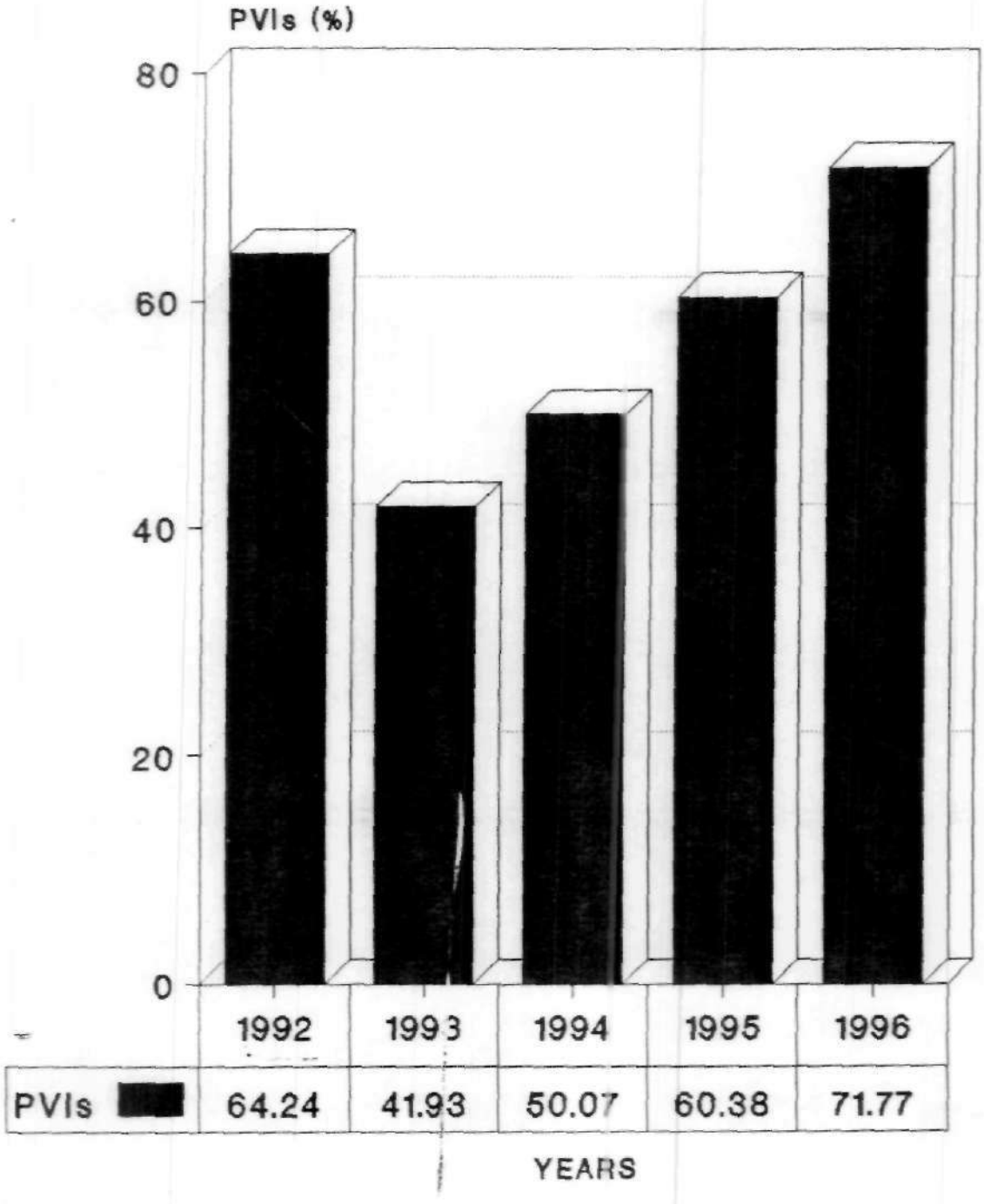
In calculating the PVI of KRPC refining plants over the years, respective quantities of petroleum and petrochemical products (planned and actual) produced from the crude oils processed were obtained.

The calculation of the PVIs for the years 1992 to 1996 are as contained in Tables 5 to 9. It is to be noted that the current prices of Petroleum products took effect from October 1, 1994. However, for the purpose of calculating PVI values, this change was reflected only as from January 1, 1995. The old prices were used for the whole of 1994. This did not change the PVI value as both the numerator and the denominator are affected by the prices of the products.

The PVIs obtained for the years under study are presented graphically in Figure 3a. The year 1993 recorded a decrease to its lowest value of 41.93%. Thereafter, there has been a steady rise to a value of 71.77% in 1996. This shows a steady improvement in the overall efficiency in the running of the KRPC Refining and Petrochemical plants, based on the available resources. That is, actual performance as compared to expected, is steadily improving.

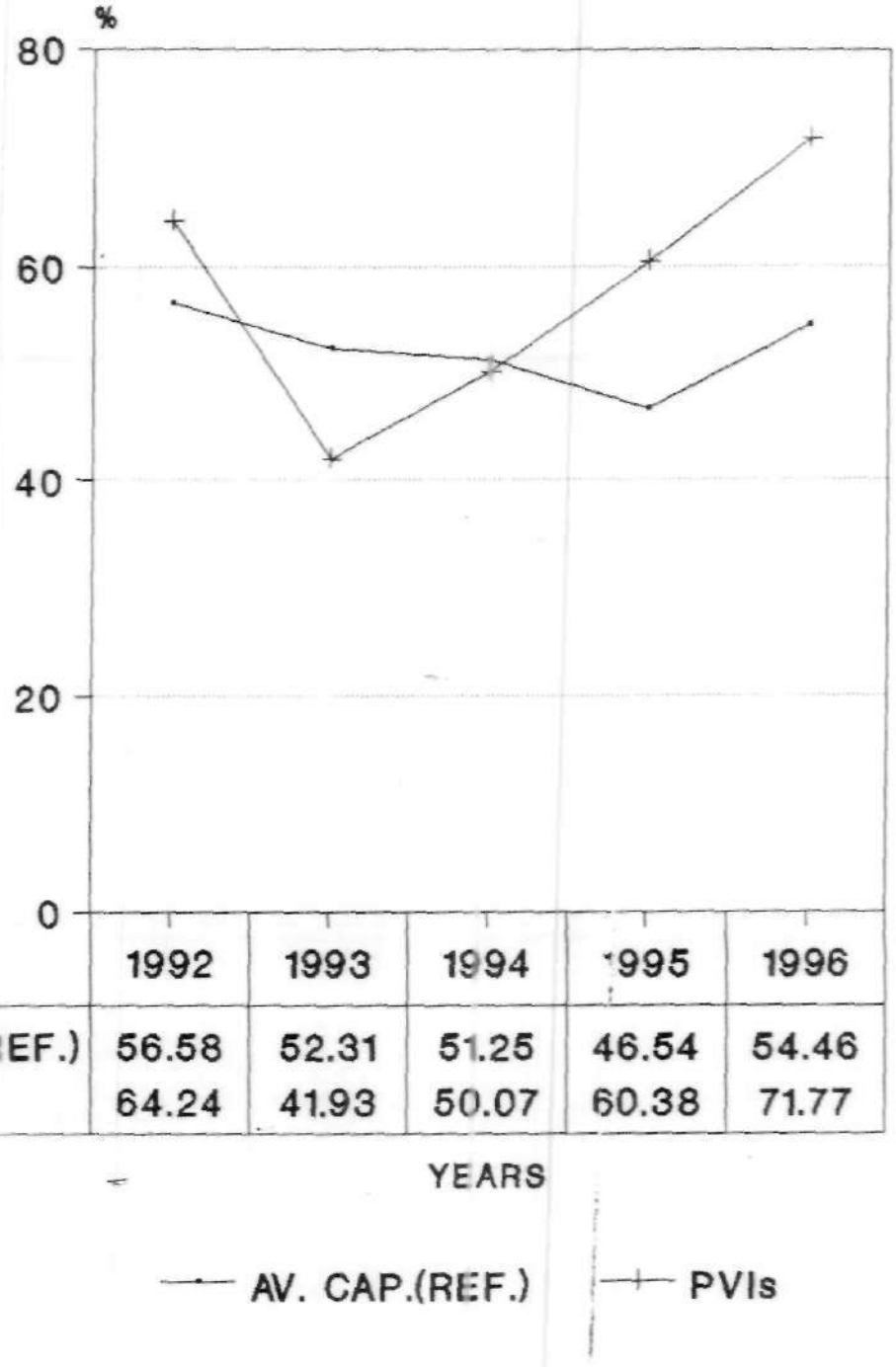
Figure 3b is a graphical presentation of both the PVIs and the average capacity utilisations. From this graph, it can be seen that in general, while the average Refining capacity utilisation during the period under study have been on the decline, the PVIs, on the contrary, have been improving. The implication to this are two fold. These are: firstly, net effective resources available for KRPC is on the decline. Consequently, the total quantities of petroleum and petrochemical products being made available to the Nigerian populace is also on the decline. Secondly, despite the decline in the resources availability, the efficient management of the Refining and Petrochemical plants has continuously improved.

FIG. 3a: KRPC PLANTS PERFORMANCE PRODUCTS VALUE INDEX (PVIs) TREND



Source: KRPC annual reports

FIG. 3b: KRPC PLANTS PERFORMANCE
CAP. UTILISATIONS & PVIs (%)



	1992	1993	1994	1995	1996
AV. CAP.(REF.)	56.58	52.31	51.25	46.54	54.46
PVIs	64.24	41.93	50.07	60.38	71.77

Source: KRPC annual reports

This means that the plants are operated in such a way that the products yield pattern is shifted in favour of the more valuable products, e,g., PMS, ATK, HHK. AGO, etc.

4.5.5a **To what extent has the Manufacturing (Tin & Drum) plant of KRPC, a fully commercialised outfit, been profitable?**

4.5.5b In discussing this question, both Operating and Financial data for this outfit were collected and analysed.

(i) **Operating Performance:**

For the Manufacturing (Tins & Drums) Plants, data on the operating performance in terms of total production of Tins and Drums over the years under study were collected. The sources included; the KRPC annual performance reports[1], plants manuals and Phoenix report on the commercialisation of the Manufacturing (Tins & Drums) plants. Phoenix report[2] assumed a capacity utilisation of 45% and 25% for the Tins and Drums plants respectively as from 1990 with an annual growth rate of 4.5%. From the capacity utilisations projected and the plants installed capacity in units per hour, the annual production of Tins and Drums were calculated. Note that the plants were assumed to run seven hours per day and five days in a week. Ten (10) more days were further deducted from the total operating days in a year to allow for National holidays. Using the same basis or assumptions, the planned and actual capacity utilisations of the plants over the years under study were calculated given the planned and actual production of both Tins and Drums respectively. The data and information so obtained are as tabulated in Table 10.

(i)a. **TIN PLANT:**

Figures 4 & 5 present the annual quantities of Tins and the Tins plant capacity utilisations respectively. In each, the Phoenix projection, KRPC planned and actual values, are presented. Both figures show the same trend.

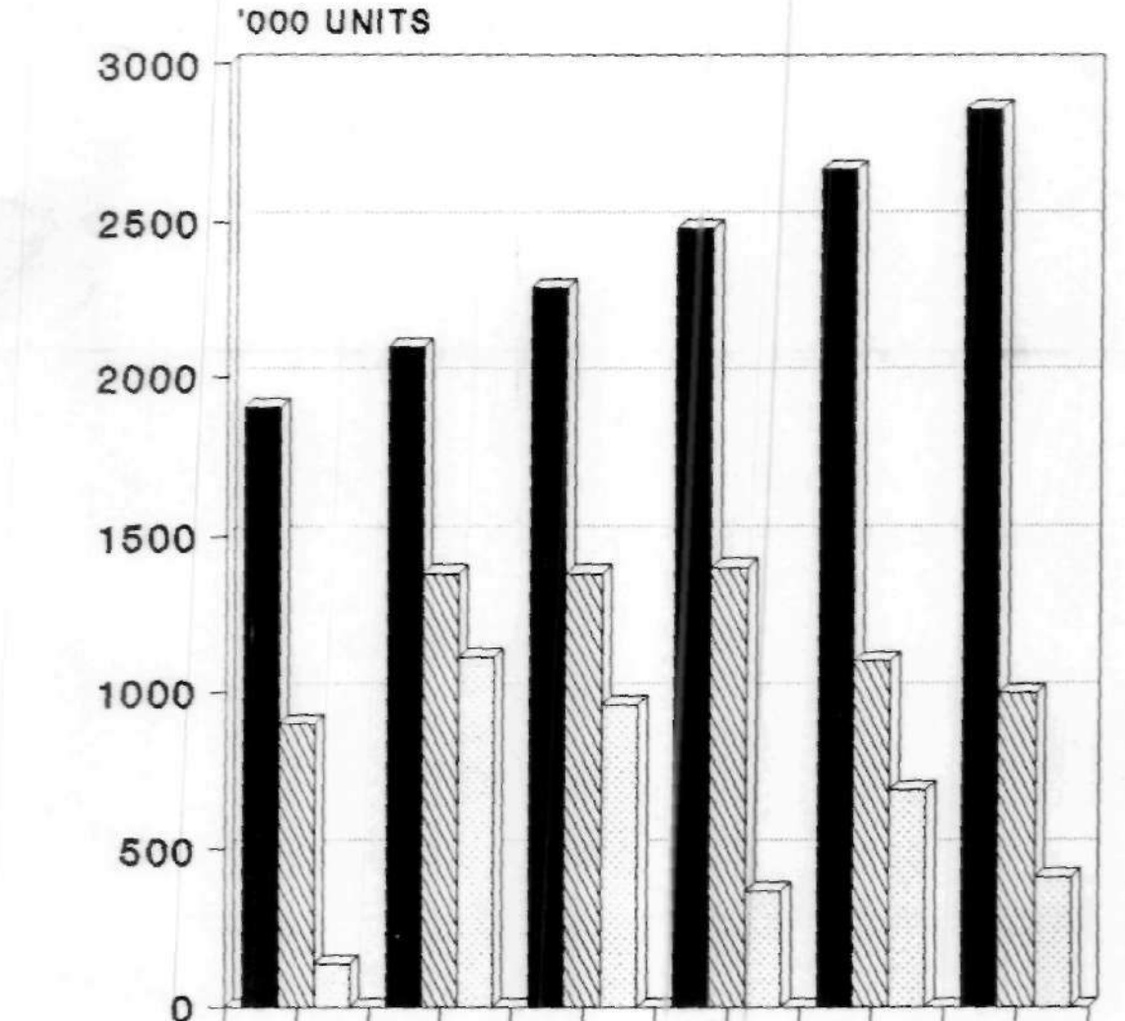
From Figure 4, Phoenix projection of annual quantities of Tins to be produced, steadily increased. KRPC planned quantities increased in the second year, remained fairly constant in the subsequent two years and steadily decreased in the last two years. All these KRPC planned quantities were far below the respective Phoenix projections. Also, it could be seen that the actual quantities of Tins produced were in all the years below their respective planned quantities. The actual operating performance gives an erratic trend. The actual capacity utilisations achieved reflect a general poor performance of the Tin plant over the years under study, particularly in 1990, 1993 and 1995.

(i)b. **DRUM PLANT:**

Figures 6 & 7 present the annual quantities of Drums and the Drums plant capacity utilisations respectively. In each, the Phoenix projections as contained in their report on the commercialisation of the Manufacturing (Tins & Drums) plant, KRPC planned and actual values, are presented.

From the Figure 6, it could be seen that Phoenix projection shows a steady annual improvement. This is not the case with the KRPC planned quantities. They are erratic and in all the

FIG. 4: KRPC MANUF.(TIN & DRUM) PLANT TOTAL UNITS OF TINS PRODUCED

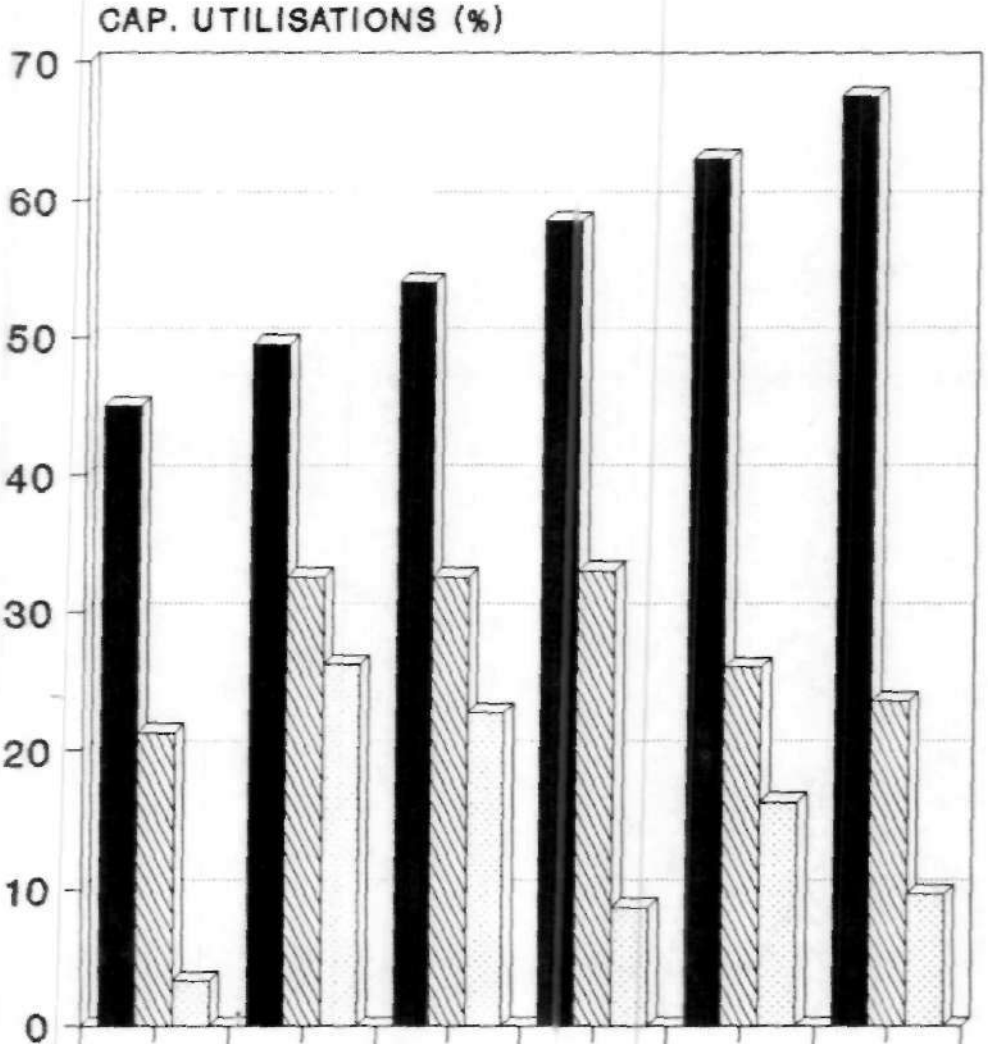


	1990	1991	1992	1993	1994	1995
PP	1905	2096	2286	2477	2667	2858
PKR	900	1380	1380	1400	1100	995
ACT.	139	1110	960	369	689	410

YEARS

PP = PLANNED (PHOENIX) PKR = PLANNED (KRPC)
Source: KRPC annual reports ACT. = ACTUAL

FIG. 5: KRPC MANUFACTURING PLANT PERF.
TINS PLANT CAP. UTILISATION (%)

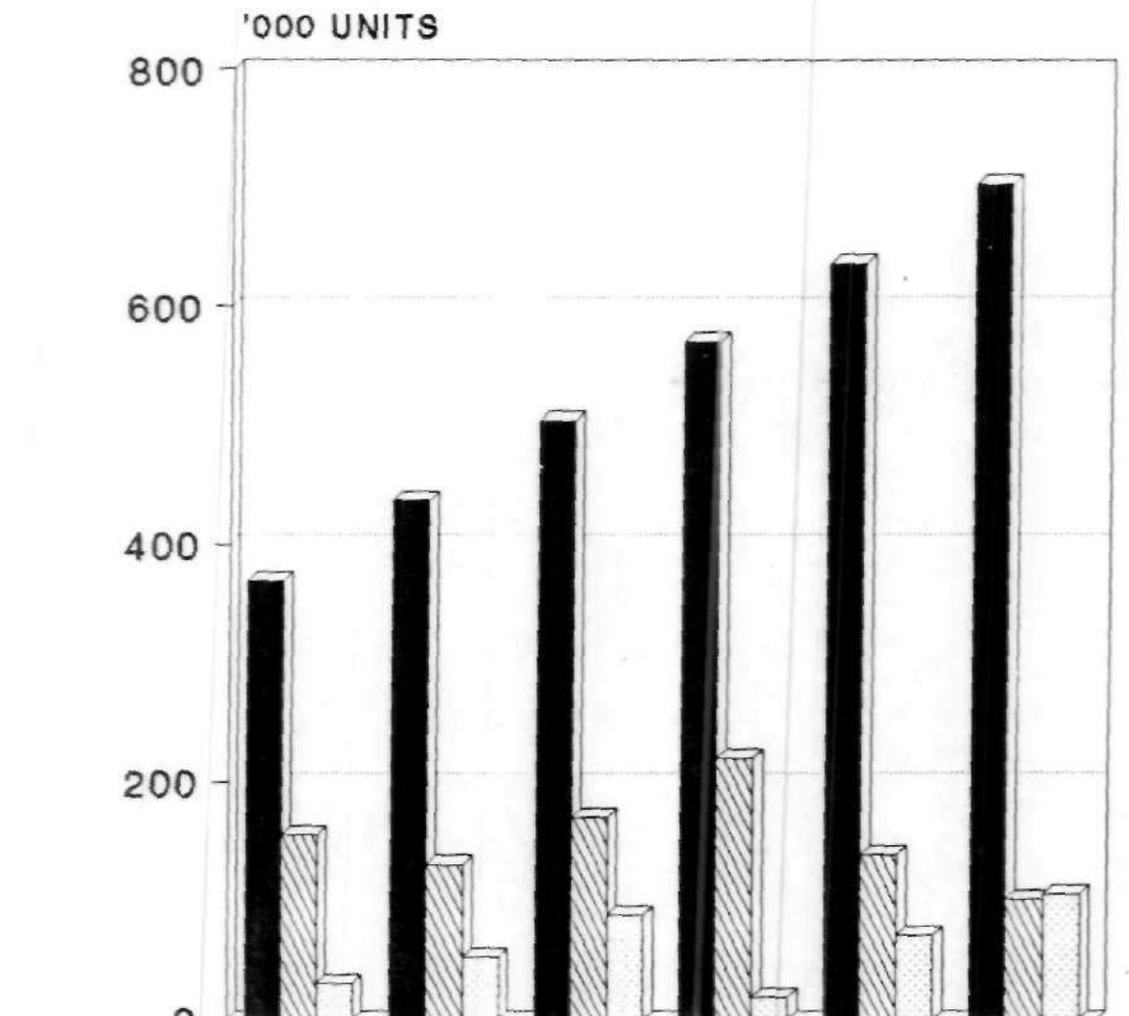


	1990	1991	1992	1993	1994	1995
PP	45	49.5	54	58.5	63	67.5
PKR	21.26	32.6	32.6	33.07	25.98	23.5
ACT.	3.28	26.22	22.67	8.71	16.27	9.68

PP = PROJECTED (PHOENIX)
PKR = PLANNED (KRPC)
ACT. = ACTUAL

Source: KRPC annual reports

FIG. 6: KRPC MANUF.(TIN & DRUM) PLANT TOTAL UNITS OF DRUMS PRODUCED

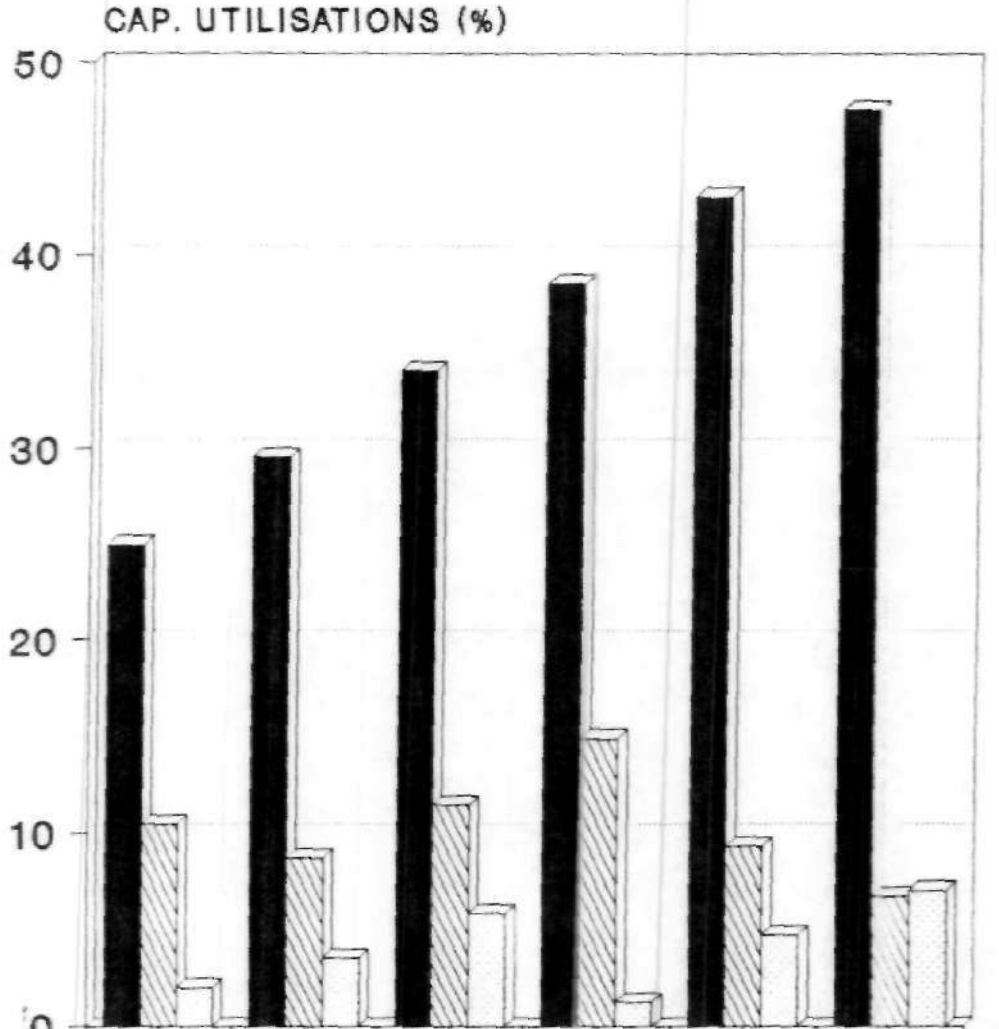


	1990	1991	1992	1993	1994	1995
PP	370	437	504	570	637	704
PKR	155	130	170	220	138	101
ACT.	31	53	88	19	71	105

YEARS

PP = PROJECTED (PHOENIX) PKR = PLANNED (KRPC)
Source: KRPC annual reports ACT. = ACTUAL

FIG. 7: KRPC MANUFACTURING PLANT PERF.
DRUM PLANT CAP. UTILISATION (%)



	1990	1991	1992	1993	1994	1995
PP	25	29.5	34	38.5	43	47.5
PKR	10.45	8.77	11.47	14.85	9.34	6.8
ACT.	2.07	3.6	5.94	1.28	4.78	7.08

YEARS

PP = PROJECTED (PHOENIX)
PKR = PLANNED (KRPC)
ACT. = ACTUAL

Source: KRPC annual reports

years, below their respective Phoenix projection. The actual quantities produced, though consistently below their corresponding planned values, they show a steady improvement in the first three years. This trend unfortunately, reversed in 1993 with the lowest production figure of 18,900 units of drums as against the highest figure of 104,847 units in 1995. From the actual capacity utilisations achieved by this plant over the years under study, it can be seen that in general, the operating performance of this plant has been poor (see Fig. 8). The expected performance at commercialisation has consistently not been met or achieved.

(ii) **FINANCIAL PERFORMANCE:**

Data on the financial performance of this plant were collected. These included annual sales revenue, cost of sales, administration costs, net asset, depreciation and interest & loan payment. These data as contained in the Phoenix report, were extracted.[2] These same costs as contained in the KRPC annual reports for the Manufacturing plant were also extracted. The net asset value used is as estimated in the Phoenix report, which was ₦30 million including ₦5 million long term Bank loan. For the KRPC planned and actual net asset, ₦25 million being capital asset, was used as from 1990 as the ₦5 million proposed loan was not taken. In calculating depreciation for the both planned and actual, straight line method was applied assuming a useful life-span of the plant of 20 years.

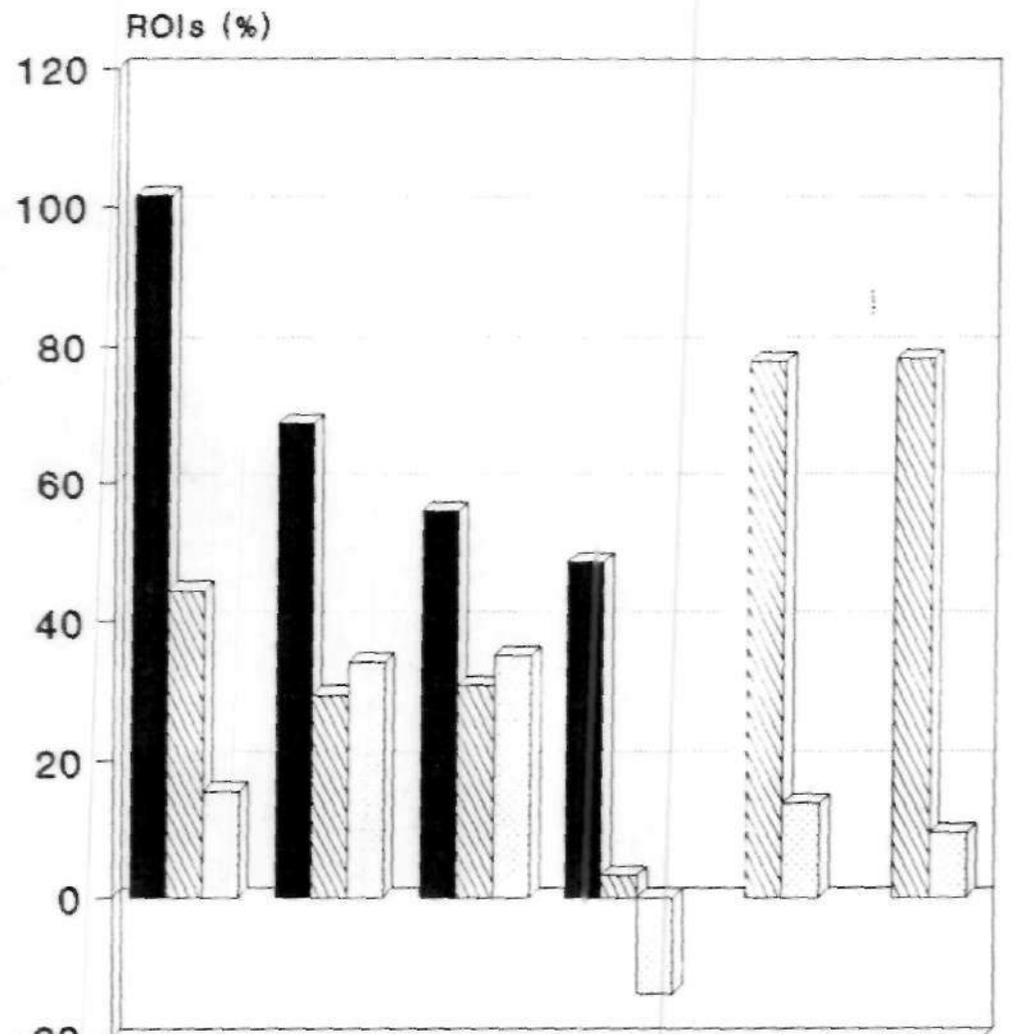
Based on the above data, the projected as well as actual "Trading Profit and Loss Accounts" for the KRPC Manufacturing (Tins & Drums) plant were drawn for the years under study. From these accounts, the plant ROIs for the years were calculated by dividing earnings before interest and tax (EBIT) by the corresponding Net assets. The accounts as well as the ROIs are as presented in Table 11.

Figure 8 shows the trend of the Manufacturing plant projected and actual ROIs during the years under study. Only in 1991 and 1992 did the achieved ROIs meet and even exceeded the NNPC Corporate acceptable value of 20%. The plant operated at a loss in 1993! Based on capacity utilisations achieved by the plants, it is no surprise that the financial performance was poor. Going by the capacity utilisations recorded (economics of scale) in 1990, as compared to 1993, the plant should have also recorded a loss. This was not so. This was probably so due to the more favourable macroeconomic indices (e. g. inflation rate, exchange rates, etc) experienced in 1990 as compared to those of 1993. Infact, to have recorded a profit at all in all but one year shows how financially viable the Manufacturing plants are if efficiently managed.

4.5.6a **Is KRPC COMMERCIALISED IN PRACTICE?**

4.5.6b The Nigerian National Petroleum Corporation is only partially commercialised. The same is true with KRPC, being a subsidiary of NNPC. Going by the official definition of partial commercialisation therefore, KRPC is generally not

FIG. 8: KRPC FINANCIAL PERFORMANCE
MANUFACTURING PLANT ROIs TREND (%).



	1990	1991	1992	1993	1994	1995
PP	101.54	68.61	55.79	48.49		
PKR	44.36	29.51	30.89	3.19	77.81	78.1
ACT.	15.6	34.13	35.1	-13.7	13.88	9.49

YEARS

PP = PROJECTED (PHOENIX)
PKR = PLANNED (KRPC)
ACT. = ACTUAL

Source: KRPC annual reports

expected to make profits except from its Tins and Drum plant (which is "fully" commercialised). It is however, to operate efficiently enough to recover costs.

It is instructive to note that whether partial or complete (full) commercialisation, the structural and operational reforms earlier discussed under 2.3 need be put in place. The degree however may vary and determine the extent of success.

For KRPC, only few of the structural reforms discussed have been put in place. For the past three years now the company has operated without a Board of Directors. The structure is such that the greatest and most pervasive control is being exercised by both the Ministry of Petroleum Resources and the NNPC Corporate Headquarters.

With the exception of Tins and Drums products, all the Petroleum and Petrochemical products prices are being fixed by Government with KRPC (or NNPC) having no power to alter them in relation to its economic circumstances. It is to be noted that all sales proceeds and other revenues of KRPC are currently being channelled directly to the government.

The financial structure of KRPC requires review. This should allow for adequate capitalisation to facilitate execution of those capital projects required to upgrade its plants for efficient operations. Currently, NNPC and indeed KRPC, has to pass all its plans (long term and short term) and funds requirements to government for consideration and subsequent approval before implementation. This has led over the years to

delays in funds releases to support efficient plants operations, resulting to poor state of plants earlier highlighted and thus declining plants capacity utilisations.

On the other hand, NNPC and indeed KRPC, have definitive mission statements. Adequate focus is placed on training and retraining though insufficient fund has a been hindrance to effective implementation. The condition of service for staff ranks among the best outside the Oil industry but is said to lag behind all others in the Oil industry.

Though the organisation is suffering a measure of political intrusion, its good public relations work and reporting process go along way in neutralising negative influences.

4.6 FINDINGS OF THE STUDY:

Based on the data sourced, analysed and other documentary information obtained covering the period 1992 to 1996, the findings of this study are as outlined below:

(1) Up to the year 1994, the year in which government policy direction changed from a deregulated economy (1986-1993) to a re-regulated economy, most macroeconomic indicators trends were not favourable. For example, inflation was on the rise, reaching 57.2% in 1993, Agricultural and Manufacturing sectors growth rates were on the decline, parallel market exchange rate for the Naira to the US Dollar was on the increase with the associated Naira depreciation. Interest rates for both commercial and merchant banks reached an all time high in 1993 (61.7% and 39.7% respectively) while the government fiscal deficit reached its peak of ₦101 billion, also in 1993.

(2) Within 1994, basic domestic economic indicators could not respond positively to the policy change. For example, inflation rate hit 70% from 57.2% of 1993. Growth in Agricultural sector decreased from 2.5% of 1993 to 1.6%. The Manufacturing sector recorded a negative growth of 5% from the 2.3% growth in 1993.

(3) From 1995 to date (i.e. since the introduction of guided deregulation as an economic policy), inflation rate has decreased from 72.8% in 1995 to less than 35% by June,1997; manufactural sector recorded a growth rate of 5.5% in 1996; both commercial and merchant banks interest rate stabilised at maximum of 21%; an increased fiscal surplus of ₦1 billion in 1995 to ₦37 billion in 1996 and expecting a higher figure by end of 1997; Naira exchange value stabilised at around ₦85 to a US Dollar; and an increased GDP growth rate of 2.2% in 1995 to an anticipated figure of 5.5% in 1997.

(4) The average capacity utilisation of the KRPC Refining plants has gradually declined from 56.58% in 1992 to 46.54% in 1995 with a slight rise to 54.61% in 1996. That of the Petrochemical plant has also steadily decreased from 53.68% in 1993 to 29.46% in 1996.

(5) The Product Value Index (PVI), being an efficiency indicator for Refinery plants, has over the years increased from 41.93% in 1993 to 71.77% in 1996.

(6) The Manufacturing (Tin & Drum) outfit of KRPC has had its Tin and Drum plants recording their lowest Capacity utilisations

of 8.71% and 1.28% respectively in 1993 while the highest value recorded during the period covered in this study was 26.22% in 1991 for the Tin plant and 7.08% in 1995 for the Drum plant. Expectedly, the financial performance gave the same trend as that of the operations. The outfit recorded a loss (negative ROI of 13.7%) in 1993. Only in 1991 did the ROI of 34.13% achieved, met and exceeded the NNPC corporate guideline of a minimum of 20.0% for all its investments.

(7) For the past three years now KRPC has operated without a Board of Directors. The structure is such that the greatest and most pervasive control is being exercised by both the Ministry of Petroleum Resources and the NNPC Corporate Headquarters.

(8) Currently, NNPC and indeed KRPC, has to pass all its plans (long term and short term) and funds requirements to government for consideration and subsequent approval before implementation.

(9) With the exception of Tins and Drums products, all the Petroleum and Petrochemical products prices are being fixed by Government with KRPC (or NNPC) having no power to alter them in relation to its economic circumstances. It is to be noted that all sales proceeds and other revenues of KRPC are currently being channelled directly to the government.

(10) KRPC (and indeed all the other subsidiaries of NNPC) has been operating on a processing fee concept to finance its operations. The processing fee concept is a strategy of funding the Refining and Petrochemical operations to ensure

efficiency and cost control. It is fashioned to recover only operational cost. It has no profit element inbuilt in it. Now, even the monies earned based on the processing fee agreement is not being released fully and on time.

(11) Currently NNPC obtains its funding from the Government through the Petroleum Trust Fund (PTF) on the basis of ₦2.00 for every litre of conventional white product (Mixed LPG, PMS, ATK, HHK, AGO & LPFO) produced and sold.

(12) KRPC operates its Manufacturing (Tins & Drums) plant as a fully commercialised outfit. It purchases its required raw materials, fixes the products prices and does the marketing. All sales revenue from this plant accrue to KRPC.

4.7 CONCLUSION:

In this chapter, a brief historical background of KRPC was given along with its previous and present organisational structure. Specific problems of the Company were outlined after which all the research questions of the study were each re-stated, discussed and analysed. This led to a number of findings.

REFERENCES:

1. KRPC annual performance reports (1990 - 1996)
2. Phoenix report (1989) on commercialisation of Tin & Drum plant of KRPC; 1989; pp. 16-25.
3. KRPC 1997-2001 Strategic plan document

CHAPTER FIVE:

SUMMARY, CONCLUSION AND RECOMMENDATIONS:

5.1 SUMMARY:

This project involved the study of Kaduna Refining and Petrochemical Company Limited (KRPC) with respect to the impact of current economic policies on the profitability of Government commercialised enterprises.

The objectives of the study included amongst others the; review of the effects of current economic policies and the resultant macro-economic indices; examination of the impact of these macro-economic indices on the profitability of commercial enterprises; examination of the performance of KRPC plants after commercialisation and ascertaining whether or not the plants have operated at improved efficiency.

The study was aimed at providing useful information on KRPC to its Management and Bureau for Public Enterprises (BPE) as well as aid government in "carefully managing the privatisation exercise being contemplated in order to ensure the country obtains its maximum benefits.

In reviewing the subject matter of this study, the following amongst others were discussed/outlined: economic policies and Government commercialised enterprises defined; the place of profitability in government commercialised enterprises and government current economic policies (Pre-SAP, SAP & Post-SAP era), etc.

Historical research method was adopted. Secondary data from primary sources were used in this study. These covered the period 1992 to 1996.

Six research questions were drawn out. These were each stated, discussed and analysed based on the data collected and using appropriate indices.

From the analyses, the following findings amongst others emerged:

(1) Up to the year 1994, the year in which government policy direction changed from a deregulated economy (1986-1993) to a re-regulated economy, inflation was on the rise, reaching 57.2% in 1993; interest rates for both commercial and merchant banks reached an all time high in 1993 (61.7% and 39.7% respectively) while the government fiscal deficit reached its peak of ₦101 billion, also in 1993.

(2) Within 1994, inflation rate hit 70% from 57.2% of 1993; growth in Agricultural sector decreased from 2.5% of 1993 to 1.6%; the Manufacturing sector recorded a negative growth of 5% from the 2.3% growth in 1993.

(3) From 1995 to date (i.e. since the introduction of guided deregulation as an economic policy), inflation rate has decreased from 72.8% in 1995 to less than 35% by June,1997; Manufacturing sector recorded a growth rate of 5.5% in 1996; both commercial and merchant banks interest rates stabilised at maximum of 21%; an increased fiscal surplus of ₦1 billion in 1995 to ₦37 billion in 1996 was achieved. Naira exchange

rate stabilised at around ₦85 to a US Dollar; and an increased GDP growth rate of 2.2% in 1995 to an anticipated figure of 5.5% in 1997.

(4) The average capacity utilisation of the KRPC Refining plants gradually declined from 56.58% in 1992 to 46.54% in 1995 with a slight rise to 54.61% in 1996. That of the Petrochemical plant has also steadily decreased from 53.68% in 1993 to 29.46% in 1996.

(5) The Product Value Index (PVI), being an efficiency indicator for Refinery plants, has over the years increased from 41.93% in 1993 to 71.77% in 1996.

(6) The Manufacturing (Tin & Drum) outfit of KRPC had its Tin and Drum plants recording their lowest Capacity utilisations of 8.71% and 1.28% respectively in 1993 while the highest value recorded during the period covered in this study was 26.22% in 1991 for the Tin plant and 7.08% in 1995 for the Drum plant. Expectedly, the financial performance gave the same trend as that of the operations. The outfit recorded a loss (negative ROI of 13.7%) in 1993. Only in 1991 did the ROI of 34.13% achieved, met and exceeded the NNPC corporate guideline of a minimum of 20.0% for all its investments.

(7) For the past three years now KRPC has operated without a Board of Directors. The structure is such that the greatest and most pervasive control is being exercised by both the Ministry of Petroleum Resources and the NNPC Corporate Headquarters.

5.2 CONCLUSION:

Based on the findings of this study, the following conclusions are drawn:

(1) Up to the year 1994, the year in which government policy direction changed from a deregulated economy (1986-1993) to a re-regulated economy, most macroeconomic indicators trends were not favourable. Within 1994, basic domestic economic indicators could not respond positively to the policy change. The decision of government however in 1995 to adopt a policy of guided deregulation of the economy with checks and balances has gone a long way in achieving a measure of macro-economic stability.

(2) The general impact of the economic policies on commercialised enterprises had been the resultant high cost of borrowing and sourcing of required inputs (especially imported ones), leading to high cost of products or services rendered and the subsequent decrease in productivity and plants capacity utilisations. The bottom line is that profitability is decreased or hindered as advantage could no longer be taken on economics of scale.

(3) On the average, the capacity utilisations of KRPC's plants have been on the decline.

(4) The efficiency of KRPC's plants utilisations have been on the increase.

(5) The Manufacturing (Tin & Drum) plants over the years under study performed generally poorly, not meeting expectations at commercialisation.

(6) All the necessary minimum structural and operational reforms required of a government parastatal turned either partially or fully commercialised, have not been put in place in the case

of NNPC and indeed, KRPC. Thus, the Corporation has **NOT BEEN COMMERCIALISED IN PRACTICE.** Required conducive commercial environment has not been created. This has hindered overall competitive performance.

5.3 LIMITATIONS OF THE STUDY:

The researcher during the course of this study, had the following limitations:

(1) Similar data should have been sourced from the sister Refineries (i.e. the Warri and Port-Harcourt Refineries) for more detailed analysis. Cost involved and time required did not allow for this.

(2) Because of the difficulty involved in obtaining data in the Petroleum industry, the study was restricted to only the recent past five years (1992-1996) for the Refining plants.

(3) Other data that could have been of use for this study, especially financial data, are often considered sensitive and in most cases, not up to date.

5.4 RECOMMENDATIONS:

Based on the findings and limitations of this study, the following are recommended:

1. Government is to ensure that all its commercialised enterprises are allowed to operate as publicly so declared. That is, they should be allowed to operate as truly commercialised enterprises by putting in place all the required structural and financial reforms befitting of commercial outfits.

2. To ensure increased capacity utilisations of the Refineries, there is the need to inject adequate capital funds to rehabilitate the plants. Since the NNPC is only "partially commercialised", government is therefore called upon to without further delay, make available the necessary funds.

3. In the alternative to the 1 & 2 above, government should as soon as possible, lease out, as presently being contemplated, its commercialised enterprises (especially the Refineries) in order to avert a total collapse of the Petroleum refining industry.

4. A full study focussing only on the Manufacturing (Tin & Drum) plant of KRPC need be undertaken to confirm or otherwise its poor operational performance, ascertain the factors responsible for this and seek possible means of improvement.

5. Similar study may be carried on the other two sister Refineries (WRPC & PHRC) to compare degree of impact of the current economic policies on their profitabilities.

6. KRPC is only partially commercialised. As a matter of urgency, the Government should constitute a Board of Directors (BOD) for the Company which will be responsible for major policy issues which will ensure effective commercial and profitable operations without undue governmental interference.

7. As indicated on p.76(5), the Product Value Inde (PVI) of the Refining and Petrochemical Plants have increased from 41.93%

to 71.77% from 1992 to 1996 respectively, but KRPC's performance in terms of products availability to the market has been dismal as a result of low capacity utilisation. To ensure continuous product availability and profitable operation of KRPC, more funds should be injected by Government to rehabilitate the plants for reliable operations.

The ROI of the Manufacturing (Tin & Drum) Plants has been low. A specific special effort is possible to improve the situation. It is recommended that such an effort should be undertaken without any further delay.

The KRPC should be fully commercialised and so structured and operated that it will function on a sound basis as a viable outfit and generate an acceptable rate of profit.

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5.5 APPENDICES:

APPENDIX 1:

TABLE 1: OPERATING PROFIT AND LOSS ACCOUNTS OF SELECTED PARASTATALS
(ALL FIGURES ARE IN MILLION NAIRA).

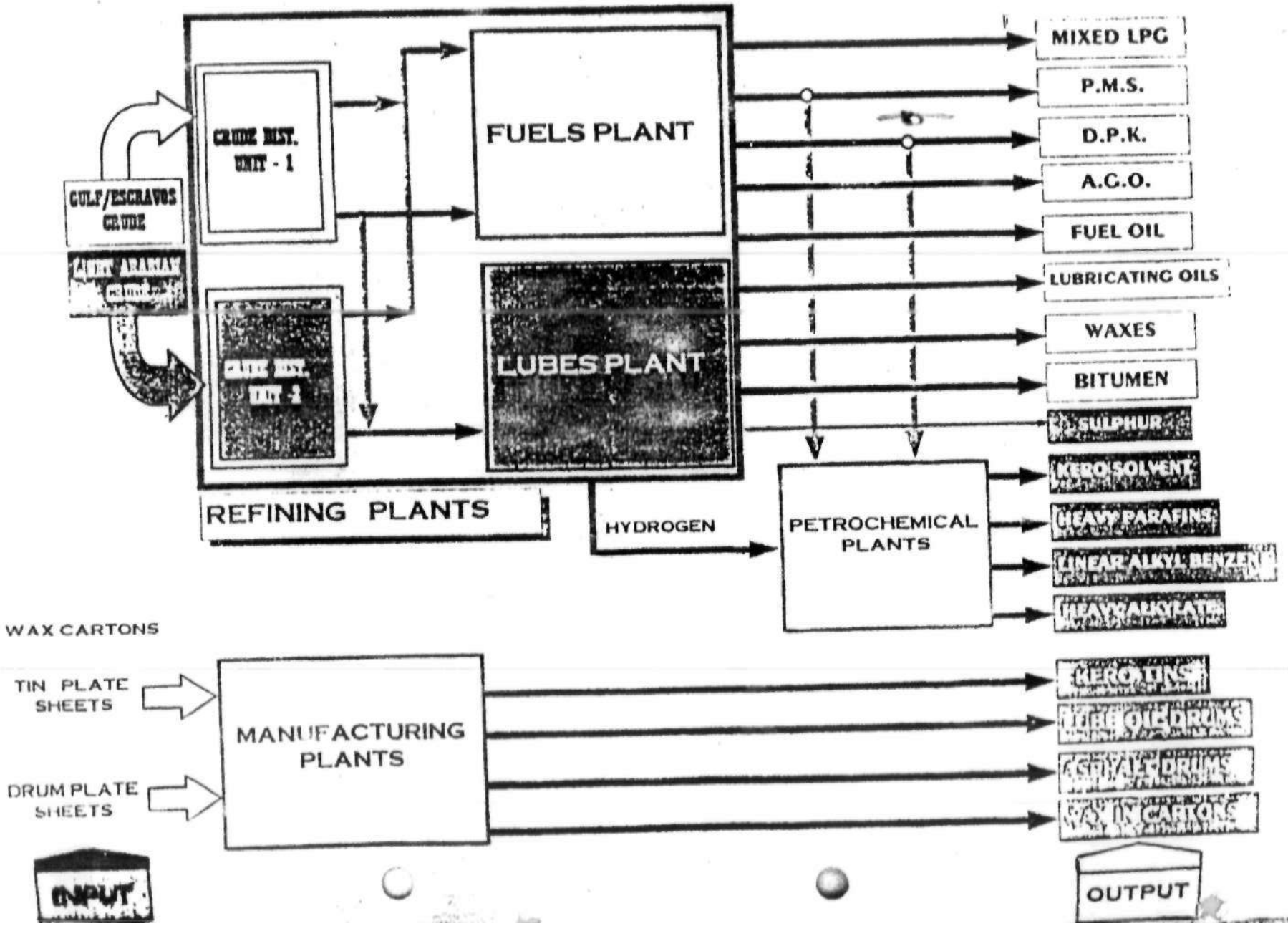
S/NO.	PARASTATAL	1977		1978		1979		1980	
		CAPITAL EMPLOYED	PROFIT/ (LOSS)	CAPITAL EMPLOYED	PROFIT/ (LOSS)	CAPITAL EMPLOYED	PROFIT/ (LOSS)	CAPITAL EMPLOYED	PROFIT/ (LOSS)
1	National Insurance Corpration of Nigeria	2.0	6.1	5.0	1.6	10.0	4.5	NA	NA
2	Nigerian Reinsurance Corporations	NA	NA	4.2	1.4	10.0	5.3	NA	NA
3	The Tourist Co. of Nigeria	NA	NA	0.7	0.9	0.7	0.9	10.7	1.1
4	Nigerians Ports Authority	NA	NA	424.0	40.3	504.0	54.7	676.2	(17.6)
5	Federal Housing Authority	NA	NA	NA	NA	NA	NA	NA	NA
6	West African Distillers Limited	2.6	1.0	3.1	1.5	3.9	2.3	5.2	0.7
7	The Superphosphate Fertilizer Ltd.	22.1	(1.7)	22.1	(3.1)	23.7	(4.1)	25.9	(4.8)
8	The Nigerian Ground Nut Board	NA	NA	11.1	(0.5)	4.8	(2.8)	12.4	NA
9	The Nigerian Cocoa Board	NA	NA	3.2	0.0	5.1	(0.0)	4.9	0.005
10	The Nigerian Cotton Board	NA	NA	97.3	(4.2)	98.2	(7.5)	97.1	6.4
11	The Nigerian Rubber Board	NA	NA	17.1	(2.6)	13.5	(0.4)	14.4	(1.8)
12	The Nigerian Palm Produce Board	NA	NA	49.9	(4.4)	70.5	(14.2)	NA	NA
13	National Electric Power Authority	NA	NA	988.5	18.9	1,372.9	27.6	2,151.4	93.0
14	Nigerian National Petroleum Corporation	NA	NA	NA	NA	NA	NA	NA	NA
15	Nigerian Ext. Telecommunication	NA	NA	55.0	12.6	63.6	8.6	84.8	11.9
16	New Nigerian Newspaper Limited	NA	NA	9.4	(0.7)	11.1	(0.2)	17.7	(0.2)
17	National Grains Prod. Co. Ltd.	NA	NA	11.3	(9.6)	10.7	(1.9)	12.4	(2.3)
18	National Root Crops Prod. Ltd.	NA	NA	NA	NA	3.9	(0.8)	10.5	(1.1)
19	Nigerian Livestock Prod. Limited	NA	NA	NA	NA	NA	NA	31.9	(1.8)
20	Central Water Trans. Co. Ltd.	4.0	0.4	NA	NA	4.5	(1.1)	105.5	(1.8)
21	Nigerian National Supply Co. Ltd.	NA	NA	102.6	0.3	133.6	2.6	105.5	(1.9)
22	National Freight Co. Ltd.	NA	NA	13.5	NA	19.1	(1.5)	18.2	(1.9)
23	National Cargo Hand. Co. Ltd.	NA	NA	4.9	1.4	5.2	0.4	4.8	(3.6)
24	Federal Mortgage Bank of Nigeria	NA	NA	74.3	(2.2)	88.3	(0.9)	293.0	4.9
25	Nigeria Airways	96.8	(6.1)	144.1	(2.3)	138.9	(2.9)	NA	NA
26	Nigerian Airports Authority	NA	NA	NA	0.8	891.8	(12.4)	992.9	(27.6)
27	Nigerian Railway Corporation	166.7	239.6	297.1	273.2	NA	NA	NA	NA
28	Nigerian National Shipping line	24.5	(21.9)	41.2	(19.5)	110.3	(14.9)	NA	NA
29	Nigerian Coal Corp.	26.5	(1.2)	48.9	(1.5)	46.3	(4.4)	NA	NA
30	Nigerian Mining Corporation	45.5	(0.5)	57.9	0.4	82.2	0.7	155.0	0.6
31	Ogun-Osun River Basin Dev. Auth.	1.7	(0.09)	6.6	(0.1)	10.8	(0.8)	23.4	(2.8)
32	Chad Basin Dev. Authority	72.9	(3.3)	140.9	(5.5)	187.8	(6.9)	307.8	(7.8)

NA = NOT AVAILABLE.

SOURCE: BUSINESS TIMES; DECEMBER 16, 1985; PAGES 12 & 13.

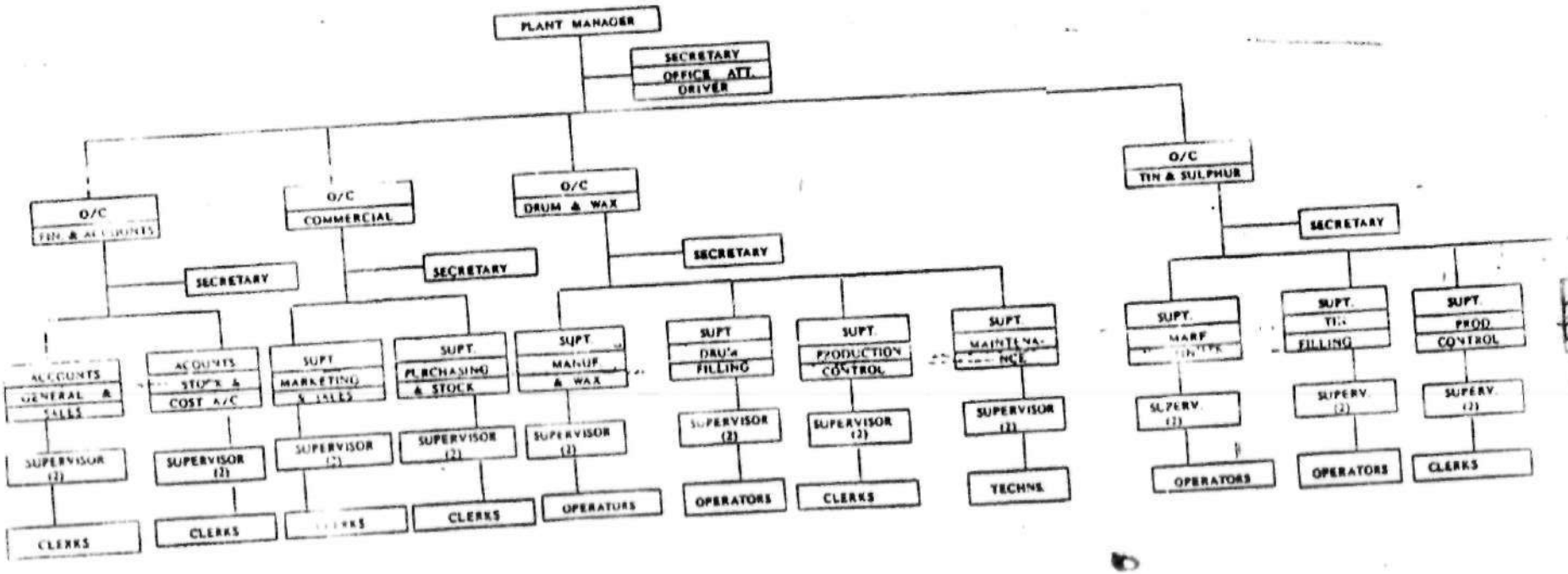
APPENDIX 2

K.R.P.C. RAW MATERIALS TO PRODUCTS FLOW SCHEME

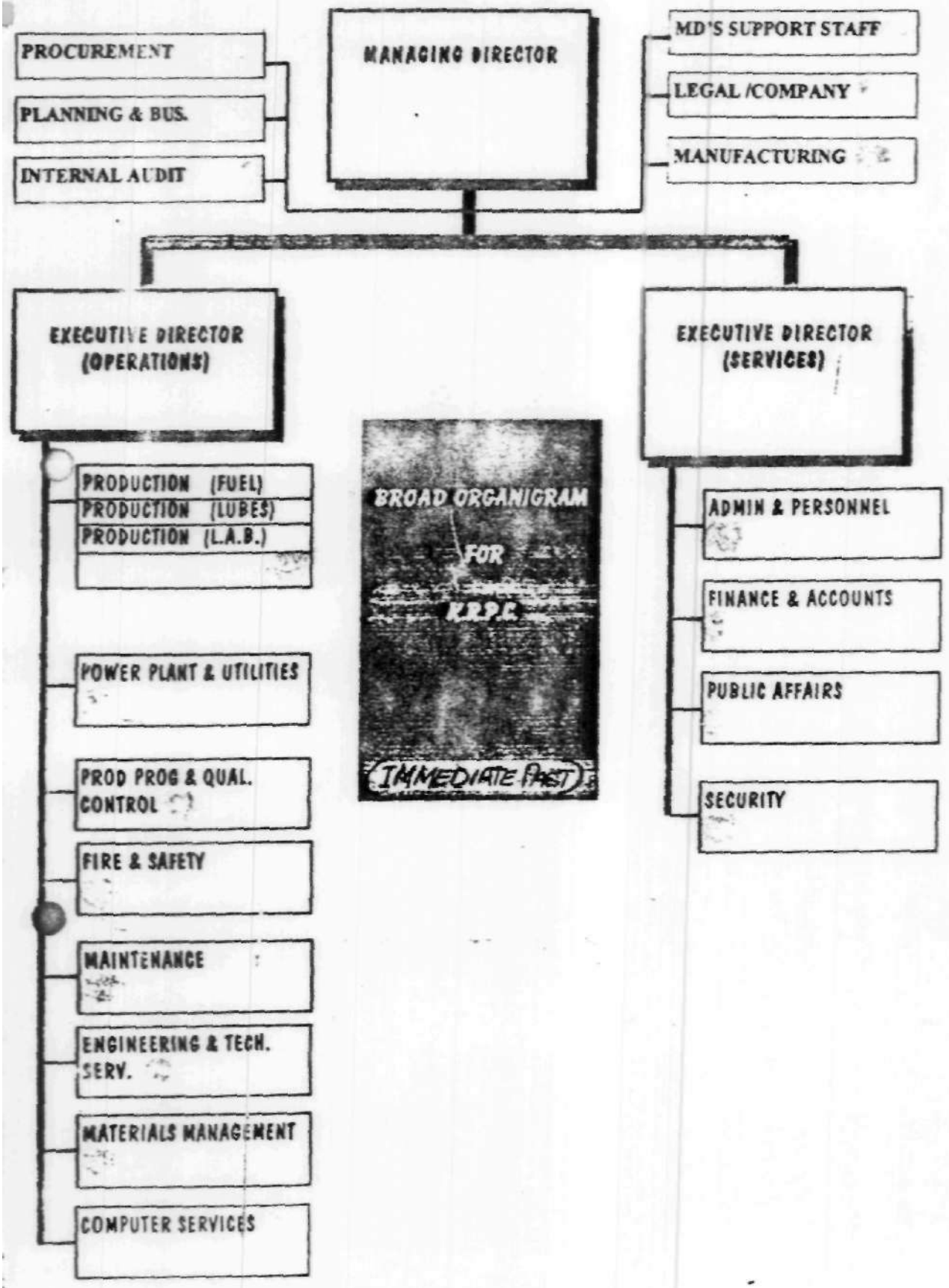


APPENDIX III (3)

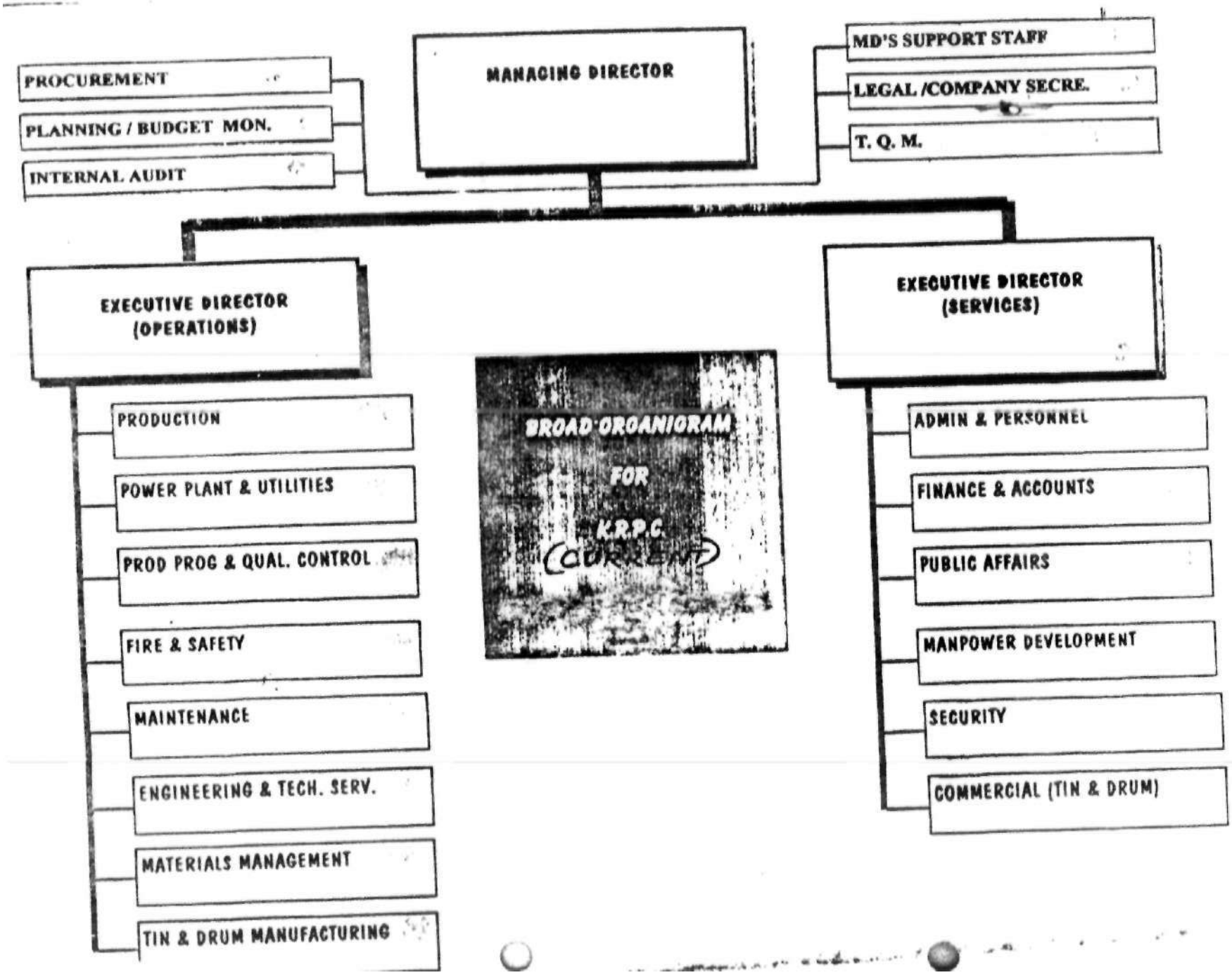
ORGANISATIONAL STRUCTURE FOR COMMERCIALISATION OF TIN AND DRUM PLANTS



APPENDIX 4a


PROCUREMENT
PLANNING & BUS.
INTERNAL AUDIT
MANAGING DIRECTOR
MD'S SUPPORT STAFF
LEGAL /COMPANY
MANUFACTURING
EXECUTIVE DIRECTOR (OPERATIONS)
EXECUTIVE DIRECTOR (SERVICES)
PRODUCTION (FUEL)
PRODUCTION (LUBES)
PRODUCTION (L.A.B.)
POWER PLANT & UTILITIES
PROD PROG & QUAL. CONTROL
FIRE & SAFETY
MAINTENANCE
ENGINEERING & TECH. SERV.
MATERIALS MANAGEMENT
COMPUTER SERVICES
BROAD ORGANIGRAM FOR K.P.C
IMMEDIATE PAST
ADMIN & PERSONNEL
FINANCE & ACCOUNTS
PUBLIC AFFAIRS
SECURITY

APPENDIX 4B


MANAGING DIRECTOR
PROCUREMENT
PLANNING / BUDGET MON.
INTERNAL AUDIT
MD'S SUPPORT STAFF
LEGAL /COMPANY SECRE.
T. Q. M.
EXECUTIVE DIRECTOR (OPERATIONS)
EXECUTIVE DIRECTOR (SERVICES)
PRODUCTION
POWER PLANT & UTILITIES
PROD PROG & QUAL. CONTROL
FIRE & SAFETY
MAINTENANCE
ENGINEERING & TECH. SERV.
MATERIALS MANAGEMENT
TIN & DRUM MANUFACTURING
ADMIN & PERSONNEL
FINANCE & ACCOUNTS
PUBLIC AFFAIRS
MANPOWER DEVELOPMENT
SECURITY
COMMERCIAL (TIN & DRUM)
BROAD ORGANIGRAM
FOR
K.R.P.C
(CURRENT)

APPENDIX 5.

TABLE 3: KRPC CRUDE INTAKE, PRODUCTS SLATES (REFINING & PETROCHEMICAL PLANTS):
(CRUDE INTAKE & PRODUCT OUTPUT FIGURES ARE IN THOUSANDS METRIC TONNES)

INTAKE / OUTPUT: ('000 MT)	1992		1993		1994		1995		1996	
INTAKE:	PLANNED (P)	ACTUAL (A)	PLANNED (P)	ACTUAL (A)	PLANNED (P)	ACTUAL (A)	PLANNED (P)	ACTUAL (A)	PLANNED (P)	ACTUAL (A)
ESCRAVOS CRUDE	2,063.97	1,873.46	2,330.29	1,905.20	2,042.84	1,928.78	1,651.18	2,091.13	2,063.98	2,046.51
ARABIAN LIGHT	1,420.74	893.70	1,673.39	652.81	1,607.82	577.72	1,270.42	184.68	1,270.42	624.28
TOTAL	3,484.71	2,767.16	4,003.68	2,558.01	3,650.66	2,506.50	2,921.60	2,275.81	3,334.40	2,670.79
OUTPUT:										
LPG	81.57	27.78	111.01	3.65	48.66	10.56	80.65	8.08	87.58	33.37
PMS	900.00	768.56	1,061.04	521.69	822.37	557.33	804.75	495.81	911.98	715.42
ATK	0.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HHK	412.91	355.19	453.64	288.61	410.17	295.19	328.53	302.36	383.13	341.40
AGO	448.85	500.35	792.20	404.36	503.86	486.61	596.69	328.31	662.92	369.78
LPFO	797.15	420.90	502.24	574.72	844.14	473.66	272.84	604.12	480.24	514.34
BASE OILS:										
-100N BASE OIL	17.10	7.53	31.91	7.31	40.74	12.01	0.00	0.00	0.00	0.00
-150N BASE OIL	11.26	4.96	18.48	4.23	11.41	3.26	17.30	0.49	0.00	0.00
-250N BASE OIL	18.29	8.06	53.49	12.26	44.00	13.35	47.92	1.36	0.00	0.00
-500N BASE OIL	27.16	11.97	34.72	7.96	32.59	9.84	53.24	1.52	0.00	0.00
-BS BASE OIL	13.06	5.75	43.45	9.95	34.22	10.16	14.64	0.41	0.00	0.00
WAX	8.19	3.02	19.28	0.25	19.09	3.78	14.64	0.89	0.00	0.00
BITUMEN (ASPHALT):	200.00	99.30	200.00	130.01	217.09	98.62	200.01	19.64	214.22	95.92
SULPHUR	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAB	27.06	8.27	30.26	17.29	30.26	16.75	25.66	13.97	26.79	9.80
KERO SOLVENT	10.64	3.85	28.48	4.05	22.75	8.40	14.90	3.95	17.52	4.42
HEAVY ALKYLATE	2.63	0.86	2.68	1.18	4.24	1.65	7.11	1.55	4.71	0.70
BENZENE	0.00	1.13	1.12	0.00	0.18	0.00	0.55	0.00	0.68	0.78
TOLUENE	0.00	0.00	2.38	1.16	0.60	0.40	0.73	0.50	2.08	0.65
INTERMEDIATE PROD.	0.00	55.13	2.15	165.23	(28.41)	82.72	0.00	148.12	42.79	78.76
REFINERY FUEL	478.42	420.67	576.48	370.63	572.27	392.85	412.88	318.01	469.98	434.74
LOSS & GAS FLARED	29.50	54.88	38.67	33.47	20.42	29.36	28.56	26.72	29.78	70.71
TOTAL	3,484.72	2,767.16	4,003.68	2,558.01	3,650.66	2,506.50	2,921.60	2,275.81	3,334.40	2,670.79

SOURCE: KRPC ANNUAL REPORTS.

APPENDIX 6.1

TABLE 5: 1992 PRODUCT VALUE INDEX (PVI) CALCULATION

SALEABLE PRODUCT SLATES:	1992 PRODUCTION ('000 MT)		SELLING PRICE	PLANNED REV.	ACTUAL REV.
	PLANNED (P)	ACTUAL (A)	(=N=/MT) (SP)	(=N= MILLION) (P*SP)	(=N= MILLION) (A*SP)
LPG	81.57	27.78	1,120.00	91.36	31.11
PMS	900.00	768.56	680.00	612.00	522.62
ATK	0.00	9.00	1,070.37	0.00	9.63
HHK	412.91	355.19	391.35	161.59	139.00
AGO	448.85	500.35	426.74	191.54	213.52
LPFO	797.15	420.90	444.21	354.10	186.97
BASE OILS:					
-100N BASE OIL	17.10	7.53	4,788.00	81.87	36.07
-150N BASE OIL	11.26	4.96	4,788.00	53.91	23.74
-250N BASE OIL	18.29	8.06	4,986.00	91.19	40.18
-500N BASE OIL	27.16	11.97	5,130.00	139.33	61.39
-BS BASE OIL	13.06	5.75	6,584.00	85.99	37.86
WAX	8.19	3.02	12,000.00	98.28	36.24
BITUMEN (ASPHALT):	200.00	99.30	450.00	90.00	44.69
LAB	27.06	8.27	7,000.00	189.42	57.89
KERO SOLVENT	10.64	3.85	1,040.00	11.07	4.00
HEAVY ALKYLATE	2.63	0.86	2,500.00	6.58	2.15
BENZENE	0.00	1.13	3,300.00	0.00	3.73
TOLUENE	0.00	0.00	2,500.00	0.00	0.00
TOTAL	2,975.87	2,236.48		2,258.24	1,450.80

PRODUCT VALUE INDEX (PVI) $\frac{\text{SUM(A*SP)}}{\text{SUM(P*SP)}} =$ 0.64

TABLE 6: 1993 PRODUCT VALUE INDEX (PVI) CALCULATION

SALEABLE PRODUCT SLATES:	1993 PRODUCTION ('000 MT)		SELLING PRICE	PLANNED REV.	ACTUAL REV.
	PLANNED (P)	ACTUAL (A)	(=N=/MT) (SP)	(=N= MILLION) (P*SP)	(=N= MILLION) (A*SP)
LPG	111.01	3.65	1,120.00	124.33	4.09
PMS	1,061.04	521.69	680.00	721.51	354.75
ATK	0.00	0.00	1,070.37	0.00	0.00
HHK	453.64	288.61	391.35	177.53	112.95
AGO	792.20	404.36	426.74	338.06	172.56
LPFO	502.24	574.72	444.21	223.10	255.30
BASE OILS:					
-100N BASE OIL	31.91	7.31	4,788.00	152.79	35.01
-150N BASE OIL	18.48	4.23	4,788.00	88.48	20.27
-250N BASE OIL	53.49	12.26	4,986.00	266.70	61.10
-500N BASE OIL	34.72	7.96	5,130.00	178.11	40.81
-BS BASE OIL	43.45	9.95	6,584.00	286.07	65.54
WAX	19.28	0.25	12,000.00	231.36	3.00
BITUMEN (ASPHALT):	200.00	130.01	450.00	90.00	58.50
LAB	30.26	17.29	7,000.00	211.82	121.03
KERO SOLVENT	28.48	4.05	1,040.00	29.62	4.21
HEAVY ALKYLATE	2.68	1.18	2,500.00	6.70	2.95
BENZENE	1.12	0.00	3,300.00	3.70	0.00
TOLUENE	2.38	1.16	2,500.00	5.95	2.90
TOTAL	3,386.38	1,988.68		3,135.84	1,314.96

PRODUCT VALUE INDEX (PVI) $\frac{\text{SUM(A*SP)}}{\text{SUM(P*SP)}} =$ 0.42

Source: Table 3.

APPENDIX 6.2

TABLE 7: 1994 PRODUCT VALUE INDEX (PVI) CALCULATION

SALEABLE PRODUCT SLATES:	1994 PRODUCTION ('000 MT)		SELLING PRICE (=N=/MT)	PLANNED REV. (=N= MILLION)	ACTUAL REV. (=N= MILLION)
	PLANNED (P)	ACTUAL (A)	(SP)	(P*SP)	(A*SP)
LPG	48.66	10.56	1,120.00	54.50	11.83
PMS	822.37	557.33	680.00	559.21	378.98
ATK	0.00	0.00	1,070.37	0.00	0.00
HHK	410.17	295.19	391.35	160.52	115.52
AGO	503.86	486.61	426.74	215.02	207.66
LPFO	844.14	473.66	444.21	374.98	210.40
BASE OILS:					
-100N BASE OIL	40.74	12.01	4,788.00	195.08	57.50
-150N BASE OIL	11.41	3.26	4,788.00	54.62	15.61
-250N BASE OIL	44.00	13.35	4,986.00	219.39	66.56
-500N BASE OIL	32.59	9.84	5,130.00	167.21	50.48
-BS BASE OIL	34.22	10.16	6,584.00	225.33	66.89
WAX	19.09	3.78	12,000.00	229.08	45.36
BITUMEN (ASPHALT):	217.09	98.62	450.00	97.69	44.38
LAB	30.26	16.75	7,000.00	211.82	117.25
KERO SOLVENT	22.75	8.40	1,040.00	23.66	8.74
HEAVY ALKYLATE	4.24	1.65	2,500.00	10.60	4.13
BENZENE	0.18	0.00	3,300.00	0.59	0.00
TOLUENE	0.60	0.40	2,500.00	1.50	1.00
TOTAL	3,086.38	2,001.57		2,800.79	1,402.29

PRODUCT VALUE INDEX (PVI) SUM(A*SP) = SUM(P*SP) 0.50

TABLE 8: 1995 PRODUCT VALUE INDEX (PVI) CALCULATION

SALEABLE PRODUCT SLATES:	1995 PRODUCTION ('000 MT)		SELLING PRICE (=N=/MT)	PLANNED REV. (=N= MILLION)	ACTUAL REV. (=N= MILLION)
	PLANNED (P)	ACTUAL (A)	(SP)	(P*SP)	(A*SP)
LPG	80.65	8.08	4,000.00	322.60	32.32
PMS	804.75	495.81	12,933.00	10,407.83	6,412.31
ATK	0.00	0.00	7,689.33	0.00	0.00
HHK	328.53	302.36	5,767.00	1,894.63	1,743.71
AGO	596.69	328.31	8,953.00	5,342.17	2,939.36
LPFO	272.84	604.12	6,195.00	1,690.24	3,742.52
BASE OILS:					
-100N BASE OIL	0.00	0.00	16,662.00	0.00	0.00
-150N BASE OIL	17.30	0.49	16,662.00	288.30	8.11
-250N BASE OIL	47.92	1.36	17,298.00	828.85	23.59
-500N BASE OIL	53.24	1.52	17,760.00	945.54	27.01
-BS BASE OIL	14.64	0.41	19,278.00	282.25	7.85
WAX	14.64	0.89	36,000.00	527.04	32.04
BITUMEN (ASPHALT):	200.01	19.64	12,000.00	2,400.12	235.68
LAB	25.66	13.97	35,000.00	898.10	488.95
KERO SOLVENT	14.90	3.95	8,000.00	119.20	31.60
HEAVY ALKYLATE	7.11	1.55	20,000.00	142.20	31.00
BENZENE	0.55	0.00	15,000.00	8.25	0.00
TOLUENE	0.73	0.50	20,000.00	14.60	10.00
TOTAL	2,480.16	1,782.96		26,111.93	15,766.06

PRODUCT VALUE INDEX (PVI) SUM(A*SP) = SUM(P*SP) 0.60

Source: Table 3.

APPENDIX 6.3

TABLE 9: 1996 PRODUCT VALUE INDEX (PVI) CALCULATION

SALEABLE PRODUCT SLATES:	1996 PRODUCTION ('000 MT)		SELLING PRICE	PLANNED REV.	ACTUAL REV.
	PLANNED (P)	ACTUAL (A)	(=N=/MT) (SP)	(=N= MILLION) (P*SP)	(=N= MILLION) (A*SP)
LPG	87.58	33.37	4,000.00	350.32	133.48
PMS	911.98	715.42	12,933.00	11,794.64	9,252.53
ATK	0.00	0.00	7,689.33	0.00	0.00
HHK	383.13	341.40	5,767.00	2,209.51	1,968.85
AGO	662.92	369.78	8,953.00	5,935.12	3,310.64
LPFO	480.24	514.34	6,195.00	2,975.09	3,186.34
BASE OILS:					
-100N BASE OIL	0.00	0.00	16,662.00	0.00	0.00
-150N BASE OIL	0.00	0.00	16,662.00	0.00	0.00
-250N BASE OIL	0.00	0.00	17,298.00	0.00	0.00
-500N BASE OIL	0.00	0.00	17,760.00	0.00	0.00
-BS BASE OIL	0.00	0.00	19,278.00	0.00	0.00
WAX	0.00	0.00	36,000.00	0.00	0.00
BITUMEN (ASPHALT):	214.22	95.92	12,000.00	2,570.64	1,151.04
LAB	26.79	9.80	35,000.00	937.65	343.00
KERO SOLVENT	17.52	4.42	8,000.00	140.16	35.36
HEAVY ALKYLATE	4.71	0.70	20,000.00	94.20	14.00
BENZENE	0.68	0.78	15,000.00	10.20	11.70
TOLUENE	2.08	0.65	20,000.00	41.60	13.00
TOTAL	2,791.85	2,086.58		27,059.13	19,419.94

PRODUCT VALUE INDEX (PVI) $\frac{SUM(A*SP)}{SUM(P*SP)}$ = 0.72 Source: Table 3.

APPENDIX 7:

TABLE 10: OPERATING PERFORMANCE OF KRPC MANUFACTURING (TINS & DRUMS) PLANT:

S/NO.	DESCRIPTION	1990			1991			1992		
		PROJECTED (PHEONIX)	PLANNED (KRPC)	ACTUAL	PROJECTED (PHEONIX)	PLANNED (KRPC)	ACTUAL	PROJECTED (PHEONIX)	PLANNED (KRPC)	ACTUAL
1	PRODUCTION: (UNITS)									
	-TINS	1,905,120	900,000	138,940	2,095,632	1,380,000	1,110,000	2,286,144	1,380,000	959,682
	-DRUMS	370,440	154,801	30,718	437,119	130,000	53,363	503,798	170,000	88,000
2	CAPACITY UTILISATION: (%)									
	-TINS	45.00	21.26	3.28	49.50	32.60	26.22	54.00	32.60	22.67
	-DRUMS	25.00	10.45	2.07	29.50	8.77	3.60	34.00	11.47	5.94
		1993			1994			1995		
1	PRODUCTION: (UNITS)									
	-TINS	2,476,656	1,400,000	368,640	2,667,168	1,099,999	688,722	2,857,680	994,998	409,722
	-DRUMS	570,479	220,000	18,900	637,157	138,402	70,766	703,836	100,800	104,847
2	CAPACITY UTILISATION: (%)									
	-TINS	58.50	33.07	8.71	63.00	25.98	16.27	67.50	23.50	9.68
	-DRUMS	38.50	14.85	1.28	43.00	9.34	4.78	47.50	6.80	7.08

YEARLY INSTALLED CAPACITY:(UNITS)

TIN PLANT = 2400TINS/HR * 7HRS/DAY * (366DAYS-((2* 4,233,600

DRUM PLANT = 840DRUMS/HR * 7HRS/DAY * (366DAYS 1,481,760

SOURCE: KRPC YEARLY PERFORMANCE REPORTS & PHEONIX REPORT ON THE KRPC MANUFACTURING (TINS & DRUMS) PLANT COMMERCIALISATIO

APPENDIX 8:

TABLE 11: PROJECTED & ACTUAL TRADING PROFIT AND LOSS ACCOUNTS:- KRPC TINS & DRUMS PLANTS:
(ALL FIGURES ARE IN MILLION NAIRA).

NO.	ITEM	1990			1991			1992		
		PROJECTED (PHEONIX)	PLANNED (KRPC)	ACTUAL	PROJECTED (PHEONIX)	PLANNED (KRPC)	ACTUAL	PROJECTED (PHEONIX)	PLANNED (KRPC)	ACTUAL
1	SALES REVENUE	105.27	43.95	29.32	108.26	48.08	26.91	113.62	55.14	55.14
	LESS:									
2	COST OF SALES	66.85	31.44	24.04	68.74	34.22	14.91	70.72	42.53	42.53
3	ADMINISTRATION COSTS	6.57	0.17	0.13	6.57	3.27	1.42	6.57	0.25	0.25
4	DEPRECIATION	1.39	1.25	1.25	1.39	1.25	1.25	1.39	1.25	1.25
5	EARNINGS BEFORE INTEREST & TAX (EBIT)	30.46	11.09	3.90	31.55	9.34	9.33	34.94	11.11	11.11
6	INTEREST & LOAN PAYMENT	2.15	0.00	0.00	2.15	2.15	2.15	1.92	0.00	0.00
7	EARNINGS BEFORE TAX	28.31	11.09	3.90	29.40	7.19	7.18	33.02	11.11	11.11
7	COMPANY TAX @ 40%	11.32	4.44	1.56	11.76	2.88	2.87	13.21	4.44	4.44
8	PROFIT AFTER TAX	16.99	6.65	2.34	17.64	4.31	4.31	19.81	6.67	6.67
9	NET ASSET (EQUITY + TOTAL LIABILITY)	30.00	25.00	25.00	45.99	31.65	27.34	62.63	35.97	31.65
10	RETURN ON INVESTMENT (ROI): %	101.54	44.36	15.60	68.61	29.51	34.13	55.79	30.89	35.10
		1993			1994			1995		
1	SALES REVENUE	119.20	130.68	19.52		149.00	74.82		149.00	91.39
	LESS:									
2	COST OF SALES	72.75	119.57	21.85		109.93	64.27		95.96	83.49
3	ADMINISTRATION COSTS	5.57	8.50	1.67		4.01	4.71		2.01	3.25
4	DEPRECIATION	1.39	1.25	1.25		1.25	1.25		1.25	1.25
5	EARNINGS BEFORE INTEREST & TAX (EBIT)	39.49	1.36	(5.25)		33.81	4.59		49.78	3.40
6	INTEREST & LOAN PAYMENT	1.69	0.00	0.00		0.00	0.00		0.00	0.00
7	EARNINGS BEFORE TAX	37.80	1.36	(5.25)		33.81	4.59		49.78	3.40
7	COMPANY TAX @ 40%	15.12	0.54	0.00		13.52	1.84		19.91	1.36
8	PROFIT AFTER TAX	22.68	0.82	(5.25)		20.29	2.75		29.87	2.04
9	NET ASSET (EQUITY + TOTAL LIABILITY)	81.44	42.63	38.31		43.45	33.06		63.74	35.82
10	RETURN ON INVESTMENT (ROI): %	48.49	3.19	(13.70)		77.81	13.88		78.10	9.49

SOURCE: KRPC YEARLY PERFORMANCE REPORTS & PHEONIX REPORT ON THE KRPC MANUFACTURING (TINS & DRUMS) PLANT COMMERCIALISATION.