MARKETING LIQUIFIED PETROLEUM GAS IN NIGERIA: A CASE STUDY OF SELECTED DEALERS IN KADUNA METROPOLIS

BY

YUSUF, ABDULLAHI HAMZA

SEPTEMBER, 1998

MARKETING LIQUIFIED PETROLEUM GAS IN NIGERIA: A CASE STUDY OF SELECTED MARKETERS AND DEALERS IN KADUNA METROPOLIS

BY

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BEING A RESEARCH PROJECT
SUBMITTED TO THE
DEPARTMENT OF BUSINESS ADMINISTRATION
AHMADU BELLO UNIVERSITY,
ZARIA,
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE AWARD OF A DEGREE OF MASTER OF
BUSINESS ADMINISTRATION (MBA)

DEPARTMENT OF BUSINESS ADMINISTRATION
AHMADU BELLO UNIVERSITY
ZARIA

SEPTEMBER, 1998

DECLARATION

I hereby declared that this project entitled "MARKETING LIQUIFIED PETROLEUM GAS IN NIGERIA: A case study of selected Marketers and Dealers in Kaduna Metropolis" is a product of my research findings, which is written by me and that it has not been previously presented in any application for any degree.

All relevant sources of information collected for the study have been duly and gratefully acknowledged by means of references.

Copyright of this work is therefore vested in the researcher. However, any fair dealing for the purpose of private study, further research, criticism or review for academic purposes is hereby authorised.

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DATE

CERTIFICATION

This thesis entitled: "MARKETING LIQUIFIED PETROLEUM GAS IN NIGERIA: A case study of selected Marketers and Dealers in Kaduna metropolis, by **ABDULLAHI HAMZA YUSUF** meets the regulations governing the award of the degree of Master of Business Administration (MBA) of the Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

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ACKNOWLEDGEMENTS

All thanks and gratitude are due to Allah the Lord of the whole world who gave me life and guidance.

I wish to acknowledge with greater respect the immense contribution, assistance, advice and attention given to me by my able Supervisor, in person of Mr. Akpan, A.B., who despite his tight schedules gave this thesis all the guidance it deserved. I am most grateful for what you did and may Allah reward you abundantly.

I also wish to extend my sincere gratitude to the entire staff of the Department of Business Administration, Ahmadu Bello University, Zaria for their direct and indirect contributions to my knowledge. Special thanks goes to Prof.Sheik Ahmed Abdullahi, Mallam Abu - Abdissamad, the Head of Department, and Mallam Sani Abdullahi, the course coordinator for MBA programme.

Also, my special thanks to Hamman Bello Kwairanga, Bulama Umar suleiman, Zulyadaini Ishaq, Major Kabir Aminu Ahmed, Mr. Suleiman Yakubu Esq; Mallam Musa Maina for the support and encouragement given to me throughout the period of my study and thereafter. Thank you very much for your immense assistance and contributions.

My thanks also goes to my numerous respondents especially the O/C Sales PPMC Depot, KRPC, the Depot Manager, the Depot Accountant and the Credit Officer, The Divisional Managers of Agip Nigeria Plc, Total Nigeria Plc, Unipetrol Nigeria Plc, The General Managers of Almo Gases Ltd, Kobag Gas Ltd, all in Kaduna who provided me with wealth of materials which contributed towards the successful completion of this study.

I wish to sincerely acknowledge the understanding and endurance exhibited by my wife Mrs. Fatima Abdullahi and my children who had to bear with my absence and attention during the course of

the study. May this work benefit all of us.- Amin.

Finally, I must mention Mr. Joshua Robert of Rollex Computers who worked relentlessly to produce this project within a very short time. To you, I also say, thank you.

YUSUF, ABDULLAHI HAMZA

SEPTEMBER, 1998

DEDICATION

This work is dedicated to whoever is prepared to seek knowledge for the benefit of the community and the world at large.

May it benefit whoever comes across it. - Amin.

ABSTRACT

Today, more than ever before, petroleum resources has been recognised as the basis of economic and social progress of most nations. Nigeria has been blessed with abundant deposits of this resources and the important role which this sector plays in our economy is greatly being realised. It is the leading sector and the mainstay of our economy and thus described as the "CASH COW" of the government.

However, inspite of this impetus in the petroleum sector, Nigeria continues to experience serious scarcity and irregular supply of these petroleum products. While some attributed the problem to lack of availability of the prodcuts, others pointed at inadequate and ineffective distribution system.

Since Liquified Petroleum Gas (LPG) is one of the petroleum product and serves as an alternative source of energy and power to both Domestic and Industrial applications, the knowledge of how it is marketed should be of great interest to all and sundry.

It is agaisnt this background that the topic **"Marketing Liquified Petroleum** Gas **in Nigeria: A case study of selected Marketers** and **Dealers in Kaduna metropolis"** is not only relevant but timely. This is because efficient marketing of the product will help offer satisfaction to the consumers, increase profits and stimulate the economy.

A descriptive survey research design was used for the study and data collected were analysed by the use of simple percentages in order to answer the research questions which are the objectives of the study.

The study has shown that there is generally acute scarcity and irregular supply of the product by the refineries which in most cases are not functioning due to lack of adherence to the T.A.M (Turn Around Maintenance. This results in high cost of the product to the final consumer.

A recommendation for stable and servicable refineries was made to the government to ensure constant supply of the product.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Today, more than ever before Petroleum resource has been recognized as the basis of economic and social progress of most nation. Happily, Nigeria has been blessed with abundant deposits for petroleum resources and the important role which this sector plays in our economy is greatly being realised. It is the leading sector and the mainstay of our economy, providing about 90% of the Nations Export Earnings and 60% of the Total Revenue. It has provided the nation with foreign exchange earnings amounting to N122.9bn in 1997 and Revenue of N243bn in the same year. No wonder that the petroleum industry has been described as the "Cash Cow" of the government.

It is the major source of the nation's wealth, economic power, industrialisation, political and social emancipation the world over.

The Petroleum and Gas Industry is thus a decisive factor in the economic expansion, growth and development of the country. Specifically the Petroleum and Gas sector

has contributed to our National Development in the following areas:

1. Gross Domestic Product - GDP
2. Government Revenue
3. Foreign exchange earnings and conservation
4. Infrastructural Development - PTF
5. Employment opportunities, Manpower Development and high relative Income.
6. Utilisation of Local Resources - fuel/energy and feed stock
7. Diversification of the economy.

Historically, Petroleum was discovered in Nigeria in 1956 while the contract for the construction of the first refinery in Port-Harcourt was signed in 1958 by the Government with Shell-BP. Since then, the demand for Petroleum products continued to sky-rocket leading to acute shortages of the products inspite of import supplements. Thus, the demand for more refineries emerged leading to the increase of the number of refineries to four (4); Two (2) in Port harcourt, 1958 and 1988; one (1) in Warri, 1978 and one(1) in Kaduna, 1980.

The history of petroleum products utilization and consumption in Nigeria however, dates back to a period before the discovery of oil and refining activities in the country. Petroleum products were used by the colonial masters, civil servants, elites and expatriate officers of the multinational corporation officials for domestic and business purposes as a source of energy, power and feedstock.

Petroleum products Depots and pipelines were also constructed nationwide between 1979 and 1994 to facilitate effective storage and distribution of the petroleum products thereby minimising costs and risks involved in the long distance haulage of the products given the terrain of the nation.

However, inspite of the above impetus in the petroleum sector, Nigeria continues to experience serious scarcity and irregular supply of these products. While some attributed the problem to lack of availability of the products, others pointed at inadequate and ineffective distribution system.

Since Petroleum is the most important chain threading together on agglomeration of diversed commercial activities

(ADAMU, 1990) and that consumption is the basis and the only justification for production it is pertinent to look at the instrument for achieving these goals (GILES, 1986 ISAH, 1989). This to my mind is no other than marketing. This is because as Ibrahim (1990:10) succiently put it "Marketing function as a catalyst to economic system development". Also the economic system of any society, be it capitalist, socialist or mixed, developed or developing, is said to be made up of three basic element of production, marketing and consumption, with marketing being the fundamental element (Onah,1981).

> Drucker (1973) also assert that:
> It is in marketing that we satisfy individual and societal values, needs and wants, be it through producing goods, supplying services fastening innovation for creating satisfaction.

Marketing thus serves to facilitate both production and consumption thereby creating and delivering a standard of living to the society (Onah, 1981, Isah, 1989). It is through marketing that organisation determines what to produce, consumers know and get what to satisfy their needs and wants and society know the effects of the process involved. Marketing thus help a country move forward in its developmental process by capital and

enterprenural talent that seek to deliver standard of living to its citizenry. Without marketing therefore organisation will not exists talkless of growth and development vis-a-vis National development.

It is with the above facts that this study seeks to examine the process of marketing liquified petroleum Gas in Nigeria, taking Kaduna metropolis as a case study.

1.2 Statement of Research Problem

Liquified Petroleum Gas (L.P.G) is a term used in the oil industry and it is synonymous with energy. It simply means the cooking gas as we popularly know. The terminology L.P.G evolved through refining hydrocarbon (crude oil). It is one of the product that are being refined and marketed by the pipeline product marketing company (PPMC) a subsidiary of the Nigerian National Petroleum Corporation (NNPC).

LPG serves as a substitute to firewood, kerosine, coal and other energy/power generating devices. The application of LPG is broad, it is used for energy purposes like domestic and hotel cooking and heating and for industrial heating as in the operations of refineries themselves, Glass factories, textiles and breweries operations. It is clean in use, very fast in yielding output relatively cheap but highly inflammable if not properly handled.

NNPC is the sole producer and supplier of the product as there are no private participation yet in the refining of crude oil in the country. The importation of the LPG product

is also vested in the corporation. It is thus what the NNPC produced or imported that would be made available to the Nation for marketing and consumption.

Even where the product is imported by other private oil companies, the distribution is the sole responsibility of the PPMC/NNPC.

Thus like any other petroleum product, LPG has been characterised by acute scarcity and irregular supply. The situation is further compounded by the current economic situations: rising costs; reduced buyers purchasing power; rational/industrial buyers who seek value for their money; retrenchment; wage freeze, commercialisation; removal of government subsidy and so forth.

It is against this background that the topic "Marketing LPG in Nigeria" is not only relevant but also timely. This is because efficient marketing of the product will help offer satisfaction to the consumers, increase profits and stimulates the economy. By so doing, the well-being of the Nation will surely be improved. Also the goals of the current campaign against deforestation desertification would be realised if LPG is efficiently marketed. It is therefore with these reasons that "Marketing LPG in Nigeria" should receive close attention from all those concerned with our economic and social development.

Taking Kaduna metropolis as a case study, the study seeks to examine the process and factors affecting marketing LPG in Nigeria. This raises a number of questions to which the study would address itself.

1.3 Objectives of the Study

The objective of carrying out this research study was to find possible answers to the following major questions:

a) What are the process of marketing LPG product in Nigeria?

b) What factors that hinder the successful application of the marketing concept in the marketing of LPG in Nigeria?

c) What factors are responsible for the persistent acute scarcity and irregular supply of the product?

d) Why are we importing the product that we produce at home?

e) What possible solutions would the study profer to the consumers of its findings?

1.4 Significant of the Study

The problem of petroleum product marketing in the country is a great concern to the government. marketers and the general public as the economic and social life of the Nation depends heavily on the extend of the availability and ready supply of the petroleum products.

Since LPG is one of the petroleum product and serves as an alternative source of energy and power to both domestic and industrial applications, the knowledge of how it is marketed should be of great interest to all and sundry. Thus, the study if properly utilised and adequate attention given to the recommendations prcffered will go a long way in alleviating its scarcity and irregular supply and

consumption as well as its rising costs.

Specifically, it is expected that the result of the study would enable:

a) The marketers of LPG know how best to market the product by devising appropriate marketing strategies and promotional mix that would help to boost the sales and consumption of the product.

b) The consumers to assert their purchasing rights in determining what and where to buy as well as what price to be paid.

c) The Dealers and prospective investors will have the knowledge of the operation of LPG business especially with regards to its procurement, storage, sales and distribution.

d) Students and practitioners of marketing and relevant courses to benefit from the study as a text of reference.

e) The government and concerned environmentalist to propagate the current campaign against deforestation and desertification thereby facilitating the implementation of afforestation programmes.

f) The realisation of the marketing concepts in the economic and commercial arena thereby doing a way with salers market phenomenum.

The need for the study is the fact that improvements in the supply and distribution of our petroleum products is a growing concern such improvement in turn will help in the achievement of our much desired National development.

1.5 Scope and Limitations of the Study

The title of the study is marketing LPG in Nigeria: A case study of selected marketers and dealers in Kaduna metropolis". The diversed and complex issues existing in the petroleum sector made it impossible to cover everything that need to be studied. As the title implies, the study is restricted to the process of marketing LPG in Nigeria, taking Kaduna metropolis as a case study for other parts of the country. This is based on the belief that the marketing process of the product elsewhere in the country is the same since its production, allocation and distribution are under the control of the Federal government of Nigeria through its organ, the NNPC/PPMC. It was on this basis that Kaduna metropolis was chosen as a case study for others. The choice of Kaduna is not accidental, it is deliberate. This was due to the fact that Kaduna is a centre of LPG production, allocation marketing and perhaps even consumption in the whole of the Northern state of Nigeria. For, it is where the only Refinery and petrochemical company of the NNPC in the Northern part of the country is sited: that is the Kaduna Refinery and Petrochemical Company (KRPC). Also, Kaduna metropolis is highly urbanised, industralised and commercialised, with high concentration of LPG marketers, Dealers and consumers of the product. Above all, Kaduna metropolis is convenient to the researcher. Again, the study is delimited to the key elements of marketing functions.

This part-ways with other activities of the petroleum sector such as the core process of production or finances. Therefore, the study is delimited to identification of the process of marketing the product and factors affecting such processes.

Therefore, inspite of the topic being a National phenomena it was not possible to give it the National coverage it deserved. For this, the study also has its limitations. It was deliberately delimited to Kaduna metropolis to a void generalisation of the topic for reasons ranging from time constraints, financial constraints and fear of dearth of data needed for a general survey. This will not however make its findings unreliable. Moreover, there is no research findings, particularly in the marketing field that can be said to be perfect. This is due to its dependence on the behavioural attitudes of the respondents.

The study was also prove to unavoidable biased responses due to the strategic nature of the petroleum sector in the country and the suspicious attitude of the respondents on the purpose of the study.

1.6 HYPOTHESIS

In order to find possible solutions to the above research question, the following hypothesis are hereby advanced:

i) That all the elements of marketing functions are duly employed in the process of marketing LPG in line with the marketing concept.

ii) That there is no difficulty or complexity hindering the successful application of the marketing concept vis-a-vis the marketing functions in the marketing of LPG.

1.7 Research Methodology

The descriptive survey research design was used in this study to enable descriptions of conditions as they exists at the time of the study.

The principal sources of data used for this study are:

a) Oral Interview

This includes oral interview with the officials of the NNPC/PPMC on the concepts and processes of marketing LPG. That was for the purpose of obtaining information on how one/organisation can become on LPG Marketer and the process of marketing the product.

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b) Personal Observations

Was also brought into play in determining the authenticity of the information gathered.

c) Questionnaire

Were also distributed to a sampled of marketers, dealers and consumers of the LPG product.

Data collected were put into frequency counts and distribution table which were later analysed by the use of simple percentage on the basis of the group variable. For the details of these and other aspects of the methodology, please refer to chapter three of this study.

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1.8 Definitions of Relevant Terms

The following terms have been defined according to the study, in order to avoid ambiguity.

a) **The product:** Means Liquified Petroleum Gas (LPG).

b) **Marketers:** These are licensed/Registered individuals and corporations by the NNPC/PPMC authorised to deal in the business of marketing the product. Public limited corporations are known as major marketers, while individuals or private limited companies are referred to as independent marketers. For the purpose of this study, the two are simply referred to as marketers. They buy the product direct from the PPMC/NNPC and sell to Dealers or industrial buyers.

c) **Dealers:** These are the retailers or retail outlets that sell the product direct to household or final consumers. They buy the product from the marketers. They also have to be registered by the NNPC through the marketers of their choice before obtaining an operation licence.

d) **Consumers:** This refers to an individual, Association, corporation body or government agency that buy goods and services with a view to satisfying their needs and wants.

e) **Marketing:** An economic, social and managerial process focussed on satisfying consumers needs and wants.

1.9 Abbreviations

The following abbreviations are also given for the purpose of this study:

i) **N.N.P.C** = Nigeria National Petroleum Corporation

ii) **P.P.M.C** = Pipelines and Products Marketing Company

iii) **L.P.G.** = Liquified Petroleum Gas

iv) **K.R.P.C** = Kaduna Refinery and Petrochemical Company

v) **P.T.F** = Petroleum (Special) Trust Fund

CHAPTER TWO

2.0 REVIEW OF PERTINENT LITERATURE

2.1 Introduction

The economic, political and social impact of the petroleum sector remains undisputed in our national life. This, the desire for adequate and regular distribution of petroleum products has continued to be a national debate.

In this chapter, the study takes a review of some pertinent literature on the concept "Marketing. This is informed by the fact that marketing is the most effective instrument of resolving the persistent scarcity and sporadic supply of the petroleum products (especially the LPG) in the country.

2.2 The Evolution and Importance of Marketing

The history of marketing in any society is said to be the history of that society and its economic development. This is because marketing began when exchange relationship began, and who knows exactly when marketing activities started. Kurtz and Boone (1977:13) however agreed that:

> It seems together reasonable to describe the development of exchange as a great invention which help to start primitive man on the road to civilization.
> Stanton (1981:5). States that marketing develops as a society and its economy develop. The need for marketing arises and grows as a society moves from an economy of agriculture and self-sufficiency to an economy built around division of labour, industrialization and urbanization.

The concept 'Marketing' has been given different emphasis depending on the crucial role it plays at different

stages of a nations developmental process. At one stage the emphasis was on the production of products that were in short supply, while at another, it was on developing effective distribution system, pricing, or promoting the product. This not withstanding, marketing enters as a fundamental element in any economic system and at whatever state of development (Onah, 1981). This was further expantiated when Stanton (1981:6) stated that:

> Economic growth in developing nations depends greatly upon those nations ability to develop effective distribution system... countries with some major state - owned industries are looking to modern marketing practices as a way to improve their economic health. Even Communist countries are using advertising, pricing, and other marketing activities to improve their domestic distribution system and to compete more effectively in international trade.

Similarly Ibrahim (1990:1) states that "marketing stimulates the economy, offers satisfaction to customers and promote profits". Ibrahim (1990:10) further expantiates:

> Marketing ... act as a sort of driving force to the process of economic development by maintaining and sustaining all economic activities which in turn act as a lubricant to the marketing system ... hence higher standard of living in the society.

Thus it could be concluded that the ultimate goal of economic development is the role of marketing as Isah

(1992:10) rightly put:

> Marketing permeates our life. Marketing activities play a fundamental role in the formation, development and growth of a country's economy whether it is rich, or poor, technologically advanced or developing.

2.3.0 Marketing: Definitions and Concepts

2.3.1· Definitions of Marketing

Marketing has been variously defined by different authors and scholars perhaps depending on the stage of the development of their society at the time of the definition. Hence the existence of different emphasis of the marketing functions -product development, physical distribution, selling, promotion, customer orientation, and so forth. Perhaps it is pertinent to have a look at some of the definitions of marketing to highlight these differences.

> The American Marketing Association (1960) defined marketing as "the performance of business activities that direct the flow of goods and services from producer to consumer or user". In a similar fashion, Kurts and Boone (1977:10) defined marketing as "the development and efficient distribution of goods and services for chosen consumer segments".

Although it is not the business of this study to criticise the definitions, it could be easily observed that the emphasis in the above definition is on the role of channels of distribution and that marketing was restricted to business activities only. However, Stonton (1981) sited Burton Harcus as having defined marketing as:

> Those activities performed by individual or organizations, either for profit or non-profit, that enable, facilitate, and encourage exchange to the satisfaction

of both parties.

The above definition thus brought the inclusion of non-profit making organisations such as clubs, societies and public owned corporations.

> As for Ryans et al (1979), Marketing is: The determination of the needs and desires of the market so that goods and services can be provided to satisfy these needs and desires.

By this definition one can say that marketing was restricted to product planning and development product concept.

Odia (1981:4) however sees marketing as:

> A total system of interacting business activities designed to plan, price, promote and distribute want-satisfying products and services to present and potential consumers.

Kwokoye (1987:2) also defined marketing as:

> The set of activities that facilitates exchange transactions including economic goods and services for the ultimate purpose of satisfying human.

In a similar manner, Kotler (1976) gave a definition of marketing as that being "Human activities directed at satisfying needs and wants through exchange process".

Despite the variability of the above definitions, a closer examination will recognise the fact that almost all of them viewed the consumer as the sole purpose for the

existence and continued operation and survival of organisations, be it economic, social or commercial. As Ero (1997:1) rightly argued:

> Organisations who wish to remain competitive, innovative and stay afloat ... must render effective and efficient services to customers on a continued basis.

Thus the customer is seen as the central role of marketing and this implies that organisations must provide the right product to the right people, at the right place, at the right time and at the right price with the right communication and promotion/Kotler, (1976). Perhaps it was on this premise that Onah (1979:4) defined marketing as:

> A process of identifying consumers needs/wants and making them available when, where and how they are needed in order to satisfy these needs at a reasonable profit.

In the words of Isah (1989:12); "All marketing programmes must start with the consumer since he is the lifewire of any organisation". In sum, Drucker (1973) state that:

> The justification in the long-run for the survival of a company will depend largely on the existence of a customer and the existence of a customer will inturn depend on the satisfaction derived from the product produced by the company.

2.3.2 Marketing Concepts

The variability of emphasis on the different elements of marketing functions has also led to the development of

different marketing concepts. These concepts seek to explain the philosophy adapted by management of an organisation towards meeting the needs and wants of the consumers of their products. According to Staton (1964), the marketing concept is "a philosophy, an attitude, or course of business thinking". The concepts also implied the state of development of marketing, vis-a-vis the economy of the given society. The concepts include the following:

(a) **The production concept:-** This is also referred to as the buyers orientation. It was practiced in Europe between 1800s and 1930s. The management emphasis at this stage was mainly on production.

As Akpan (1995) emphasized:

Sellers had a single primary goal to maximize production so as to keep pace with demand ... there was little or no marketing activities on the part of the producers. The role of marketing was relegated to price bargains with potential buyers, and at time to distribution issues.

Similarly, Kotler (1980:27) referred to the production concept as:

> A management orientation that assumes that consumers will favour those products which are available and affordable, and that therefore the major task of management is to pursue improved production and distribution efficiency.

Kurtz and Boone (1977:10) also state that during the production concept stage:

> Production reign, not the consumer ... a good product would sell itself ... business success was often defined interms of production victories ... time, place and ownership utilities were not widely recognized.

Therefore the role of management according to this concept was to ensure that something is produced and made available to consumers at affordable prices. The marketing efforts were restricted to selling the product at a price set by production and financial executives since it is assumed that product is well made and reasonably priced.

(b) **The product concept:-** This is a management philosophy that held the assumption that consumers will favour those goods that offer the best quality at a given price. It implies that consumes place high premium on the quality of goods they buy. Emphasis then started to shift from mass production to quality products.

(c) **The selling Concept:-** This is also known as the seller's orientation. It was brought about as a result of economies of large scale production when mass production had been achieved. As Akpan (1995) pointed out:

> As a result of this development, it became necessary for producers to achieve large volume of sales in order to minimise the unit cost of production. Thus, organisations were forced to raise their ability up to a

level that marched with their capacity.

Similarly, Stanton (1981:12) asserts that two significant organizational changes took place during the stage:

> First, all marketing activities such as advertising and marketing research are grouped under one executive, still typically called a sales manager ... second, activities such as training and sales analysis, formerly performed by other department, now are handled in the sales department.

The selling concept is thus informed by the customers general reluctant attitude in buying a product unless their interest are highly stimulated by way of aggressive sales promotion.

This philosophy however dented the marketing arena. For, it was during this period that the most aggressive and unscrupulous use of personal selling effort referred to as the "hard sell" took place. By this orientation, the concern of the consumer have no place in the business of marketing. Some characteristics of this concept are still tenable in Nigeria today. As Odia (1981:3) pointed out:

> Nigerian businesses today operate in a sellers market, which means that they make no attempt to match product to consumer need ... thus any concern for product quality, service or the personal welfare of the consumer is usually secondary.

It is therefore not surprising that Ibrahim (1990:2) asserts that Nigeria is characterised by poor marketing

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which is "reflected in poor service, poor quality of products, inadequacy and shortages of product and poor distribution". Similarly Igomu (1989:7) stated that:

> In Nigeria ... marketing is often equated with selling ... marketing as a functional area is often neglected ... consumers are rarely afforded the opportunity to get sufficient information regarding the products they want, or are encouraged to take action in cases of dissatisfaction ... consumers have constantly fallen victims of certain malpractices - the sale of defective goods, false and misleading labels/advertising, over pricing.

(d) **The marketing concept:-** This concept has consumer orientation as its basic premise (Kurtz and Boone, 1977). Accordingly Stanton (1981) states that the marketing concepts is:

> A philosophy of business that states that the customer's want-satisfaction is the economic and social justification for a firm's existence. Consequently, all company activities must be devoted to finding out what the customers want and then satisfying those wants while still making profits over the long run.

In a like manner, Kotler (1980:3) stated that the marketing concept is:

> A management orientation that holds that the key task of the organization is to determine the needs and wants of target markets and to adapt the organisation to delivering the desired satisfaction more effectively and efficiently than its competitors.

According to Kurtz and Boone (1977:15), the marketing concept gain recognition and became dominant following the release of General Electric Company's 1952's Annual Report, thus:

> (The concept) ... introduces the marketing man at the beginning rather than the end of the production cycle and integrate marketing into each phase of the business. Thus, marketing, through its studies and research, will establish for the engineer, the design and manufacturing man, what the consumer wants in a given product, what price he is willing to pay, and where and when it will be wanted. Marketing will have authority in product planning, production scheduling, and inventory control, as well as in sales distribution and servicing of the product.

Stanton (1964:12) summed the thrust of the marketing concept when he stated that:

> The customer becomes the fulcrum, the pivot point about which the business moves in operating for the balanced best interest of all concerned ... to be effective the marketing concept must permeate the entire company, starting with the chief executive.

It was perhaps in recognition of the above that Giles (1986:3) pointed out that the marketing concept:

... involves three fundamental propositions:

(a) Customer orientation

(b) Organisational integration

(c) Mutually profitable exchange between consumer and organisation.

(e) **Social marketing concepts:-** According to Akpan (1995), "the growing discontent among consumers in the 1960s had led to consumerism" which Drucker (1973) considered as 'the shame of marketing'. During that period marketing was characterised by excessive promotion of materialism, creation of a feeling of frustration and inadequacy and placing of

deceptive advertisement (Akpan, 1995).

Similarly, Kotler (1980:35) sees the social marketing concept as:

> A management orientation that holds that the key task of the organisation is to determine the needs and wants of target market and to adapt the organisation to delivering the desired satisfaction more effectively and efficiently than its competitors in a way that preserves or enhances the consumer's and society's wellbeing.

Thus the social marketing concept emerged as a result of the need for marketing executives to respond to social needs. This is with the hope of eliminating the growing discontent among the operations and side effects of business consumers and society at large concerning the marketing practices. The concept also seek to protect and promote the well being of the society along side the business goals and objectives so as to survive and be successful. In the words of Fisher (1969), this stage was regarded as a "survival stage and argued that"

> Marketers must be supply-oriented to ensure efficiency and effectiveness, ... (in) creating and delivering a better quality of life rather than just a material standard of living.

2.4 The Product, Liquified Petroleum Gas

As earlier noted in 1.2 above, L.P.G. is one of the by-products of hydrocarbons refining. Chemically it is the combination of butane and propane. It is basically used as

a source of energy for cooking and heating in domestic, commercial and industrial applications. Though the product appears to border on being a necessity as a source of energy and power. It can be and is being substituted by other sources like kerosine, firewood, natural gas, electricity power and so forth. For this and other reasons, therefore, it can be said to be price sensitive. As Wentz and Eyrich (1970:271) rightly pointed out:

> If a product borders on being a necessity, but can be replaced by another product, it will tend to be price - elastic.

The production (procurement)and marketing (allocation) of the LPC in Nigeria is vested with the NNPC/PPMC. Incidentally, the NNPC/PPMC is also a major consumer of the LPG as it is used as source of power in its refining operations. The PPMC as protected by law, has the sole monopoly in the allocation of the LPG to the marketers of the product. Infact the PPMC has made it mandatory for every major marketer to lift and sell it or else pay a prescribed penalty fee. To this, some of the major oil marketers like ELF and Mobil oil have opted for the payment of the penalty fee. This was attributed to the fact that the product constitutes only a small fraction of their products line with little turnover rate and profit margin. That is to suggest that the LPG is a sort of a problem child product in the oil industry. To make matters worst, the supplier being a monopolist hardly could the interest of the consumer be catered for as Aliyu (1991:33) rightly pointed out:

> When the marketer is a government monopoly, ... it very unlikely that the customers or users satisfaction is bothered about ... the poor consumer is treated like an orphan even before he is born.

It is therefore not surprising that the consumers and in deed the general public has continued to lament on the supply and distribution of the petroleum product in the company. However, the LPG has as its promotional slogan thus, "it is clean, quick and cheap".

2.5.0 Evolving a Realistic Marketing Strategy

2.5.1 The Thrusts of the Marketing Concept

As earlier pointed out in 2.3.2 (d), the thrusts of the marketing concept are based on three fundamental propositions, thus, customer orientation, organisational integration and mutually profitable exchange. Effective marketing therefore is the systematic realization of these propositions as unified whole rather than being separately pursued. This calls for a realistic marketing strategy which is definitely not easy to come by as Fisher (1968) asserts:

> It is very easy to say "I will adapt the marketing concept but it is much harder to put these bold words into practice. It can only be put into practice by planning and organisation throughout the company.

The situation is further compounded by the present dispensation of rapidly changing social, economic, technological and competitive environments. It is these

changes in the environment that makes marketing a dynamic area and the fact that corporate success is synonymous with marketing success (Adler, 1973) makes marketing the focal activity of every organisation.

The complex changing environment notwithstanding, every organisation should as a necessity place emphasis on adapting its product to the needs and desires of the consumer. As Kurtz and Boone (1977:13) state:

> The basic concept is the same: production is not meaningful until a system of marketing has been established ... "nothing happens until somebody sell something".

For somebody to sell "something", the marketing concept has to be adapted and pursued with vigours. Every aspect of the "Something" (Product) from its design, pricing, distribution, selling, promotion and pre-and after-sales services should be seriously considered with the consumer as the central target. As Adler - (1973:75) pointed out:

> It (is) increasingly important not to pay lip service to the marketing concept but to do something about it ... if the purpose of business is to create a customer at a profit, then the need of the customer must be carefully attended to; we must in short, study what the customer is buying or wants to buy rather than what we are trying to sell.

Similarly, Jawando (1981) asserts that:

> The most efficient marketing organisation is that which supplies the goods and services required, in sufficient quantity, at the right time and place, and at a minimum cost, and sells at a reasonable price which yields a satisfactory level of profit.

2.5.2 The Need for Market Segmentation

Evolving a sound marketing strategy also demand appropriate application of market segmentation. This is one the recognition that consumers who are the central focus of marketing are different. As consumers differ, the success of any organisation as pointed out by Engel et al (1972), is determined by:

> The ability of management to uncover demand variations within segments of the overall market and then to achieve a competitive edge by producing pricing, promoting, and distributing a product that meets these demand. As a result market segmentation has came to be recognized as a key to profit in a volatile competitive environment.

Akpan (1995) also explain the need for market segmentation on the prepositions that:

1) Markets rather than being homogeneous are actually heterogeneous.
2) No two buyers or potential buyers of a product are alike in all respect,
3) However, large groups of potential buyers of a product share certain characteristics of distinction.

According to Kotler (1980), market segmentation is:

> Sub-diving of a market into homogenous sub-sets of customers, where any sub-set may be conceivably be selected as a target market to be reached with a distinct marketing mix.

In a similar fashion, Fitzrey (1976:80) sees market segmentation as:

> A strategy of allocation of marketing resources given a heterogeneous customer population. Sub-markets are defined which are homogeneous in terms of their response to marketing stimuli and marketing strategies developed for each of these sub-markets or segments.

The two most commonly used approaches in market segmentation are consumer segmentation methods and product segmentation methods. The customer segmentation methods are based on selected characteristics of consumers as people with different personal characteristics and designing products attributes to match these characteristics. Common among such personal characteristics are age, income, education, race, religion and position in life. Product segmentation methods on the other hand focus special attention on specific product attributes, benefits loyalty or utilities. Thereafter groups of customers are defined in terms of their reaction to these products utilities.

Thus by evolving appropriate market segmentation, organization would be able to undertake realistic market opportunity analysis. Having analysed the customers/market characteristics vis-a-vis its strengths and weaknesses the organisation would be in a position to determine whether or how the opportunities would be exploited. By so doing a sound marketing strategy would ultimately be evolved. Marketing strategy, according to Koter/1980) is:

> A managerial process of analysing market opportunities and choosing market positions, programs, controls that create and support viable business that serve the company's purpose and objectives.

Other benefits of market segmentation include:

- Better understanding of the customer and why he purchase a product.
- Putting management in a better position to direct marketing programmes in order to satisfy the customer needs.
- Strengthening management capabilities towards meeting changing market demands.
- Enabling management to assess competitive strengths and weakness.
- Facilitating the assessment of the organizations' strength and weaknesses, and
- Making possible for systematic planning for future market.

Similarly and more succinctly Seibert (1973) views marketing strategy in terms of Marketing mix and emphasized that by using various combination of the marketing mix, the marketing manager then comes out with a programme of action known as the strategy. Thus leads us to another important aspect of the marketing strategy - the marketing mix.

2.6.0 Marketing Mix

According to Stanton (1981:30), marketing mix is:

> The term used to describe the combination of the four imputs that constitutes the core of a company's marketing system: the product, the price structure, the promotional activities, and the distribution system.

Marketing mix thus simply referred to the combination of the "Four Ps" (product, prices, place and promotion) in marketing system that yields the optimum synergy in the attainment of organizational goals and objectives. It constitutes the major marketing stimuli and as Stanton (1980:20) pointed out, it requires "Careful coordination (synchronization) of the actions of the separate parts to form a system".

Similarly, Akanet (1995) describes marketing mix as:

> The unique combination of controllable variables that a given marketer offers to consumers. A marketer's objective is to create a marketing mix that provide greater satisfaction than a competitor does. The key to building the best marketing mix is knowing the desires of the people to be served. And the key to success lies in applying the philosophy of the marketing concept to the development of the marketing mix.

Marketing mix therefore constitute the principal decision making areas that have to do with the product, distribution of the product, pricing the product and promoting the product.

As McCarthy and Parreault (1984:44) pointed out:

> A typical marketing mix would include some product, offered at a price, with some promotion to tell potential customers about the product, and the place where it is available.

The fact that "there are many ways to akin a Cat "made it imperative to examine the various strategies of the "four Ps".

2.6.1 The Product Strategy

The need for a second product strategy is understood when we recognise the fact that not all consumers look for the same attributes from a product as they differ in their evaluation of these attributes. Also the product portfolio or product mix a firm offers set the limit for its growth as well as profit objectives (FitzRoy, 1976).

The importance of the product variable is further stressed when we realise the rising level of technology, competition, involvement of governments and the quest for profit and organisational survival, according to Wentz and Eyrich (1970:295).

> Decisions involving the firm's products can be the most important ones the marketer makes. Alterations in the product mix often involve uncertainty and a heavy outlay of resources; mistakes in product, decisions may cast millions of dollars. Yet the rewards can be tremendous ... thus the product variable is both the most treacherous and the most promising instrument in the marketer's bag of tools.

Product strategy is concerned with developing and offering the right product of the right volume and at the right time for the target market. It thus involved both the physical attributes of the product and the accompanying service attributes. Prominent among such include packaging, brand, labels, quality, trademarks, warranties,

guarantees, image, location, safety and so forth. Which the buyer may accept as offering satisfaction of wants and needs. Product strategy therefore considers all it takes a product to satisfy all consumer needs and wants in relation to the product. Thus it is pertinent at this juncture to note that there is no one "best" strategy. This is rightly stressed by Kurtz and Boone (1977:191), thus:

> There is no one best strategy ... the basic departments in choosing a product market strategy are company resources, product life cycle, and competitive strategies.

Akpan (1995) sums the importance of product strategy when he states that:

> When organisation determined to produce or sell a specific product or group of products, it is this decision which dictates the industry to which it will belong, the market it will serve, an the nature and extent of the resources, methods and techniques it will employ.

2.6.2 Pricing Strategy

Pricing is one of the most important and critical variable in marketing strategy. As Kurtz and Boone (1977:17) noted:

> One of the most difficult parts of marketing decision-making deals with the method of setting profitable and justified prices. It is closely regulated and it is subjected to considerable public scrutiny.

The above statement no doubts depict a clear picture of what obtains in the Nigerian petroleum sector. The government regulates and closely monitors the prices of all

petroleum products in the country. Similarly the public including the marketers, dealers consumers and even the NNPC itself continually amend on the prices of the petroleum products of which LPG is one.

The importance of pricing is further recognized when it is realized that the piece of a product determine not only its production but also its subsequent consumption. Accordingly, wentz and Eyrich (1970:235) view price as having the following attributes:

> Price is the universal index. It is the best measure of demand. Price serves to bring the supply of goods and services produced into equilibrium with the quantity demanded... it serves as the primary mechanism for the allocation of economic resources... it is also effective as an instrument of control in a managed economy... The effectiveness of price as a marketing instrument is conceded even by the Soviet Union, which uses price to adjust the level of consumption... The single most important variable in the demand function is product price.

Thus pricing does not only stop at determining supply, demand and profitability. It goes ahead to attract competition, precipate government intervention, trigger retaliatory action by competitors, encourage higher wage demand and alienate consumers (Wentz and Eyrich, 19700.

Pricing in the oil industry which the field of the study also posed additional problem. As Giles (1986;75) pointed out:

> Oil has presented very special pricing problem, since... it is often impossible to avoid producing several products simultaneously. There are thus difficulties

> in allocating joint costs to particular products under reasonable stable world condition... Hence the need for fundamental rethinking of pricing strategies by the oil refineries and distributors.

To be effective therefore an organisation should tailor its price strategy in line with its objectives as whether maximising profits, meeting competition, maintaining good relations with employees, the government and the customer or building a good image with the general public. But whatever the objective, pricing must be seen as an integral part of the total marketing mix. That is to say pricing strategy must be supplemented by other marketing strategies such as improved product quality or new advertising campaign. Additionally, marketers must study the nature of the product demand in the industry and gauge the effect of the price on the demand before deciding on a price strategy.

2.6.3 Place (Distribution) Strategy

The need for a sound distribution strategy is based on the facts that modern production and consumption are never at equilibrium and that products do not flow in equal amounts and in a regular pattern from producers to consumers (Isha, 1989). Gilles (1986:22) also pointed out that "some products and services are bought direct from the producer: others are made available through various intermediary channels.

Another attributory factor is the rising costs of marketing activities to which Akpan (1995) reported that "physical

distribution accounts for about 50% of the total cost of marketing" In a similar fashion, Akanet (1995) reported that "Consumers expend about 25% of every Naira to pay the cost of distributing products". Thus as ineffective distribution system can result in increasing costs as well as decreased consumer want-satisfaction.

On a positive note however, physical distribution facilitates the availability of the right goods to the right place at the right time for the least cost. According to McCarthy and perreault (1984;47) "A product isn't much good to a customer if it isn't available when and where it is wanted". Physical distribution thus adds to consumers satisfaction and improve their standard of living by providing the right product to the target market.

Perhaps it is in recognition of the role played by the distribution variable in the marketing system that the NNPC constructed the petroleum products depots and pipelines network nationwide. As Iro (1984;53) observed:

> One of the prime objective of the Federal Government in constructing these pipelines network was to minimize the high cost and risk involved in long distance haulage of finished products by road and tails. The Kaduna refinery therefore serves as the watershed of the pipelines and depots in the Northern parts of the country. The operation of the depot system forms an integral part of the distribution process.

Iro (1984) has also identified three different Channel Levels in the distribution of petroleum products in the country, thus:

(1) NNPC---> Major Oil Companies---> Industries

(2) NNPC---> Major Oil Companies---> Dealers---> General Public

(3) NNPC---> Independent Markets---> General Public.

According to Jurtz and Boone (1977:17):

> Distribution strategy involves the physical distribution of goods and the selection of marketing channels... the step a good or service follows from producer to final consumer... This include retailers, whole-salers and other institutional middlemen.

Akpan (1995) on his part viewed physical distribution as involving the actual movement and storage of goods after they are produced and before they are consumed. He went further to outline four major components of physical distribution as:

(1) Order Processing

(2) Warehousing

(3) Inventory and

(4) Transportation.

In an attempt to establish a viable distribution strategy, Giles (1986:22) advice that it is important:

> To understand the flow of the consumption system, the motivation of buyers and sellers along the chain, the relative importance of these channels and changing customer perception of them.

2.6.4 Promotion Strategy

Promotion variable is yet another most critical aspect of the marketing mix. As stanton (1964:535) pointed out:

> Promotional activities are probably the most criticized part of the entire marketing program... without questioning many advertisements act in poor taste. This is no fault of the tool... but simply indicates that it has been used poorly. Yet it is human nature to blame the tool itself: a person will hammer a nail crooked and blame the poor quality of the nail: he will hit his finger and blame the hammer.

Promotion is concerned with the business of informing the target market about the "right" product through mainly such methods as personal selling, advertising, sales promotion and publicity. The responsibility of marketing manager in this respect is to appropriately blend the methods in such a way that the most synergistic effect is achieved (McCarthy, 1984).

The recognition of the increasing physical distance between producers and consumers: the expanding geographical limits of markets: the increasing number of Channels of the distribution: and the increasing number of informed buyers along with their changing buying habits necessitates a sound promotional strategy (Stanton, 1964).

2.7 Quality service

The quality of service offered by a marketing organisation is yet another stimulus factor in shaping the buyers attitude towards the organisation's product. A consumer may be more ready to buy a product from a marketer whose quality of service is viewed paramount than the price of the product.

Services can be in form of technical support, repairs, maintenance, on time delivery, maintenance of quantity and quality of product, and so on. Akpan insisted Larsan etal as having defined services as:

> "All those none price activities undertaken by a retailer to assist him or her in carrying out the mission to achieve the twin objectives of customer satisfaction and higher sales volume"

Akpan (1997) further asserts that:

> There is no questioning the fact that firms offers similar merchandise use services to make specialized appeal to consumers. A seller who wants to increase his product satisfaction can employ such services as credit, alternations, installations, and performance checks. Delivery, parking, and wrapping can also be employed to enhance convenience. Special benefit services such as product return, handling of complaints and repairs all add up to create positive impressions in the minds of consumers.

Thus marketers of the LPG can make a great difference in their customer patronage if they can effectively provide quality service to the customers.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter deals with the description of the research design, sample and sampling techniques, instrumentation, data analysis employed in the study and the administration of the instruments.

3.2 Research Design

The study was undertaken to find out the process and factors affecting the marketing of L.P.G. in Kaduna metropolis.

To enable the researcher carry out the study, a descriptive survey research design was used as it permits the description of the conditions as they exists at the time of the study.

3.3 Population.

The population of the study included the NNPC/PPMC/KRPC, major marketers, independent marketers. Dealers and an-unascertainable number of consumers of the LPG product within the Kaduna metropolis.

3.4 Sample and Sampling techniques.

The sample of the study covered the NNPC/PPMC/KRPC, three major marketers, three independent marketers, five Dealers and twenty consumers of the product in the Kaduna metropolis. the three major markets sampled are:

(i) Agip Nig. Plc - Agip GAs

(ii) Unipetrol Nig Plc - Unigas

(iii) Total Nig PLc - Total Gas

While the three independent Marketers used in the sample are:-

(a) ALmo Gases Ltd - ALmo Gas

(b) Nido Gas Ltd - Nido Gas

(c) Kobag Gas Ltd - Whanu

The five sampled Dealers on the other hand includes:-

(1) Alhaju Usman Mani - Usmania Gas

(2) Alhaji Nuhu Moh'd - Nuhu Gas

(3) Uba Shehu Gas

(4) Tabson Nig. Ltd

(5) Innocent Gases.

A stratified sampling techniques was used in the selection of the sample to ensure the representation of the various sub-groups that made up the population.

Further more a stratified random sampling technique was used in selecting the marketers and the Dealers, this was done through balloting.

The twenty consumers included in the sample, population on the other hand were randomly issued with the questionnaires at the filing plants of the five sampled dealers. They were not however asked to indicate their personal or business names on the questionnaires. Hence, their names are not given here.

3.5 Instrumentation

The instruments used for collecting data for the

purpose of this study includes:

(a) Oral Interview

(b) Questionnaires and

(c) Personal experience and observation.

The oral interview was conducted with the officials of the PPMC/NNPC at the KRPC on the processes of licensing marketers and Dealers, the mode of the product allocation, Distribution, pricing and problems affecting the marketing of the L.P.G. product. That was for the purpose of obtaining information on how the products was being marketed. Appendix "B" is the interview questions with the PPMC/NNPC officials at the KRPC.

Similarly, a set of questionnaires were used for this study and are marked "Appendix C & B". The questionnaires were meant for the sampled marketers and Dealers and were administered on their Marketing/Sales executives. This was on the belief that any information given by them was expected to represent the authentic information. The aim of the questionnaires were to obtain information on the marketing practices of their companies. Consumers were also issued with questionnaires and helped by the researcher to answer the questions accordingly. The aim was to ascertain their level of satisfaction with the product.

In addition, personal experiences and observations of the researcher were brought to bear in determining the authenticity of the information gathered. This was due to the fact that the researcher has spent 14 years as one of

the executive of one of the marketers of the LPG product in the Kaduna metropolis.

3.6 Validation of the instruments.

For the purpose of ensuring the content validity of the instrument, the researcher subjected the interview and questionnaires item for scrutiny by the research supervisor. His comment and suggestions were later incorporated in the instruments.

3.7 Method of Data Analysis.

Data collected through the personal (oral) interview with PPMC/NNPC officials, and the personal observations and experiences were put narrative form there by describing the processes of the L.P.G. marketing. On the other hand, data collected through the questionnaires were put into frequency chart and transformed into frequency distribution tables according to the variables. They were then analyzed by the use of simple percentages on the basis of the group variables in order to answer the research questions. Details of the findings and analysis are given in chapter four.

3.8 Administration of the instruments.

The interview questions were personally delivered to the PPMC/NNPC officer in charge of L.P.G. marketing unit with the Kaduna Depot. He was given one week to study the questions after which the researcher met him to discussed the questions raised.

For the questionnaires, 31 copies were administered in the following manner:-

(a)	One for each of the three major marketers	=	3
(b)	One for each of the three independent marketers	=	3
(c)	One for each of the five Dealers	=	5
(d)	one for each of the twenty sampled consumers	=	20
	Total	=	31

The questionnaires were personally administered on the respondents as such 100% return were received. the researcher however, had to explain the objectives of the study as well as some of the questionnaires items to the respondents to secure their co-operation in answering the questions. That of course was not without some biases, given the attitudinal nature of the study and its sensitivity.

CHAPTER FOUR

4.0 PRESENTATION, ANALYSIS AND DISCUSSION OF DATA

4.1 Introduction

In this chapter, the information collected through oral interview, questionnaire and personal observations are presented, analysed and discussed on the basis of the research objectives stated in chapter one.

4.2 The Procedure of Becoming an LPG Marketer

The responsibility of licensing an LPG Marketer in vested with the NNPC through its department of Petroleum Resources (DPR) in conjunction with its subsidiary the PPMC. The business of LPG marketing required huge financial outlay both for the initial set - up facilities and day to day operations. Infact, the initial capital requirements for LPG marketing is more than double compared with that of other petroleum products like petroleum, diesel or kerosine. This is because the machines, the tools, the manpower and the documentation needed are all specialised requirements. To become an LPG market, the following requirements have to be fulfilled:

i) Application for approval to construct the LPG filling plant with the following documents enclosed:
   a) Three (3) sets of approved engineering drawings of the project (civil, mechanical, electrical, safety).
   b) Memorandum and Article of Association of the Company.
   c) Certificate of Incorporation of the company.

d) 3 years tax clearance certificate of the company/or that of the promoters of the company.

e) C of O if available]

f) Local Government approval] for land survey

g) Police Report on the proposed site

h) Fire Brigade Report

i) Environmental Impact Assessment by KEPA

j) Feasibility studies

k) Application fees payable to "Federal Government of Nigeria (DPR fees Account)". The current amount is ₦10,000.00

ii) <u>Site Inspection</u>

After the above documents are submitted, the DPR would carry out another site inspection to ensure compliane with the requirements. Here, project inspection and evaluation would be carried out. It is after the satisfaction with site inspection that the proposed marketer proceed to set up the filling plant according to the proposal.

iii) Then, another application for approval for licence to operate an LPG filling plant would be submitted to the DPR enclosing the following.

a) Final fire Brigade Report

b) Pre-licensing Inspection Report

c) pressure test certificate of the installed tanks and pipe works

d) Demand a proof of the integrity of the welding work on the tank and pipe work.

e) Licence fee payable as abvoe and storage license payable as follows: ₦100.00. per metric tonne installed storage but not less than ₦10,000.00

There will also be yearly renewal of the licence from the time the filling plants starts operation and the fees payable would depend on the prevailing license fee.

4.2.1 **Procedure for becoming an LPG Dealer**

Apart from being a marketer, one can decide to become a Dealer who was earlier defined as a retailer/retail outlet for purpose of selling the product to the final consumer. However, this also have its own requirements as follows:

i) Application to the NNPC/DPR through a marketer of his choice stating his business name, address, nature of business.

ii) Inspection and evaluation of the project site by the DPR officials to ensure that the site is not situated right inside the heart of residential areas which in the event of any fire outbreak can cause a lot of damage and losses to the public.

iii) Acquiring the necessary facilities and equipments such as cylinders, fire-extinquishers, rubber hose, chips, regulators and so forth.

iv) Securing an operating license.

Once the above procedures are followed and accomplished, a commencement of lifting approval would be issued by the PPMC headquarters. This lifting approval is the authority that will enable the LPG marketer to lift product from all the refineries in Nigeria.

Special attention is always accorded to special products like the LPG. Hence, strict compliance with the procedures above are enforced. This is to make sure that maximum safety measures are taken and complied with since the product is highly inflammable.

A new investor who wants to establish an LPG filling plant would requrie not less than 6 months to accomplish the above procedures given the required resources available, the beurocratic procedures with other relevant government agencises may not allow one the chance to accomplish such within the limited time frame stated above (6 months). Hence, LPG filling plants are built over a period spanning from one year to 2 years.

4.2.2 Factors that Hinder the Entry into the Business of Marketing LPG

Like any other big investment, the principal factor that hinders the entry into the business of marketing LPG is capital. LPG plant is a capital intensive venture. Standard filling plant will cost not less that N50 million while a mini-filling plant would require about N20million to build. A modern filling plant however will gulp as much as over N100 million. These are all attributable to the lower

exchange rate of our naira against other foreign currencies, particularly the Dollar ($) and the pound sterling (#).

Other factors that scared investors in this sub-sector of the petroleum industry includes:

a) Non-availability of the product for a longer duration within most of the year. Marketers are always engaged in bridging this product from one refinery or another. In some cases, importation has to be resorted and cumbersome procedures here also scares investors.

b) Lack of LPG filling plant spare parts, since the investment is a specialised one so also the machines, equipments and tools are highly specialised. Most of the parts had to be imported from abroad and are therefore costly.

These difficulties of entry into the business also makes the exist very difficult. Divestment in this sector is not easy due to the capital intensive nature. Not all new investors are interested in buying over such huge investment due its peculiar problems. hence, it is not only the entry that create problems, but the exit itself becomes very difficult of one intends to divest.

4.3 Process of Lifting and Marketing LPG

The process of lifting and marketing LPG in under the direct control and supervision of the PPMC. The PPMC was initially set up as a unit of the NNPC, later upgraded as a division and now operate as a subsidiary company. The company has the full responsibility for the safe and efficient

operations and maintenance of the nationwide pipeline and Depot systems as well as the marketing and distribution of all petroleum products in the country. Specifically, the PPMC was set up to carry out the following functions:

a) Establishing a viable unit to run and maintain the crude oil and petroleum products pipelines
b) Operating and carrying out normal routine operational mainatenance of the pipeline network and depot systems.
c) Controlling the allocation and distribution of crude oil and petroleum products as may be required
d) Liasing and collaborating with other subsidiaries of the NNPC to ensure an uninterrupted supply and distribution of petroleum products.

The PPMC in its day to day operations set up guidelines and procedures for allocating, lifting and distribution of the various petroleum products through the marketers. Consequently, the following processes are provided in the marketing of the LPG product.

i) Depositing funds with the PPMC by the marketer.
ii) The allocation of product to the marketers on a rationing basis by the PPMC.
iii) Lifting the product from the Refinery/Depot by the allocated marketers using their trucks or hired trucks
iv) Discharging the product into the storage tanks by the marketers
v) Selling to Dealers or Industrial consumers by way of filling their cylinders through the use of filling

machines, weight testing scales or Bobtail tankers of 5-10 tons for Industrial users.

vi) The Dealers in turn sell the product to the final consumers/households users by way of cylinders.

4.3.1 Factors Responsible for the Persistent Acute Scarcity and Irregular Supply of the LPG Products

In an attempt to find out the reasons for the continued shortage and irregular supply of the LPG product, a question was put to the LPG Marketing Officer (O/C Sales) of the PPMC, kaduna Depot to this effect. The following were then given as factors responsible for these.

i) The Refineries are not operating at full capacity. The refineries are very dilapidated. Technical problems are all over. The Turn Around Maintenance (T.A.M) which was supposed to be providing expertise management of the refineries are not carried out as and when due. Thus, the refineries are not well managerd to give its maximum performance.

ii) Lack of Adequate storage facilities for the LPG. This makes the product to finish first among all the other petroleum products as soon a refinery breaks down. Furthermore, absence of pipeline network for the product as with other products help to complicate the scarcity and irregular of supply phenomenon. The new LPG Depots built accross the country are not linked with pipeline just as petroleum and others.

iii) Illegal exports or smuggling across our boarders as a result of diversion. Here products that are meant for

our domestic consumption are diverted and smuggled out in to order to fetch higher income or revenue.

iv) Improper and inadequate funding of the petroleum sector by the government. NNPC and its subsidiaries are always crying for inadequate funding considering its role as the "Cash-Cow" of the government. The result of which is the persistent scarcity of petroleum products.

These factors can be said to be the reasons behind LPG importation into the country in order to argument (supplement) the shortfall in domestic production.

4.4.0 Factors Affecting the Successful Application of the Marketing Concept in the Marketing of LPG in Nigeria

The successful application of the marketing concept involves three fundamental propositions as earlier pointed out. These include customer orientation, organisational integration and a mutually profitable exchange.

However, since the main thrust of the marketing concept is the satisfaction of the consumer's needs and wants, several questions were raised through the interview questions and the questionnaire to see to what extent the marketing concept has been applied in the process of marketing LPG. Such questions seeks to probe the main varaible of the marketing mix. This was with the belief that the appropriate application of the marketing mix will lead to the realisation of the consumer orientation concept. Information collected from the respondents on these variables are hereby presented below.

4.4.1 The Product

The LPG is a homogeneous product as it is common with almost all petroleum products and mineral resources. As such it has very low product and image differentiation. Its quality of service is also fairly comparable among the marketers. The marketers tends to serve approximately the same customer groups (final consuemrs and industrial users) and they perform the same facilities and equipment essentially cylinders, tankers and so forth.

Table 1: Use of alternative Substitute

RESPONSE	NO	(%)
a) Yes	20	100
b) No	Nil	-
TOTAL	20	10

Source: **Qustionnaire for consumers. (Appendix D).**

Despite its being a necessity product however, it has alternative substitutes as indicated by the consumers responses to a question on the use of substitutes. As Table 1 below shows 100% of the respondents (consumers) indicated that they use substitute products.

The alternative substitutes for the LPG as given by the consumers include firewood, kerosine and electricity power supply.

Table 2: The most important factor for buying the LPG

RESPONSE	NO	%
a) The Price	8	40
b) Availability of supply	4	20
c) Proximity/transport cost	-	-
d) Credit facilities offered	-	-
e) The seller's image	4	20
f) Quality of service	4	20
TOTAL	20	100

Source: Questionnaire (Appendix C & D).

As earlier noted in the literature review when a product borders on being a necessitiy and the same can be substituted, then such a product can be very price sensitive. Thus the LPG product can be expected to be given high consideration by the consumers. This of course is further proved by the respondents when answering a question on the most important factor to be considered when acquiring the product. As can be seen in table 2, 40% of the consumers rated price as the most important factor determing their purchase of the product.

Table 3: The most important factor

CUSTOMERS CONSIDER IN BUYING THE LPG		
RESPONSE	**NO**	**%**
a) Price	7	64
b) Availability of Supply	2	18
c) Proximity/Transport cost		
d) Credit facilities offered		
e) Company Image		
f) Quality of Service	2	18
TOTAL	**11**	**100**

Source: Questionnaire (Appendix C & D).

Similary on answering the same question 64% of the marketers confirmed that their customers consider price as the most important factor in buying the LPG. Their response is given in table 3 above.

Table 4: Marketing Mix controlled by the Marketers of LPG

RESPONSE	NO	%
a) The product		
b) The price	9	36
c) The promotional activities	5	20
d) The distribution system	11	44
TOTAL	25	100

Source: Questionnaire (Appendix C).

In an attempt to find out what marketing mix the marketers undertake or control, 44% of marketers indicated that they control the distribution system while 36% undertake the control of the price. None of the marketers has the control of the availability of the product and only 20% under promotional activities.

These responses are given in table 4 above

What the abvoe table suggest is that the marketer have no control whatsoever over the production of the LPG. They merely lift the product from the PPMC as allocated and then undertake the selling activities mainly by further appartioning the product amongst their customers. Very little is taken in the field of promotion but they fix the retail prices at their will as the purchase (lifting) price was set for them by the PPMC. This in extent shows the degree to which the ,marketing concept is being applied in the marketing of the LPG.

Table 5: Marketing functions undertaken by marketers of the LPG

RESPONSE	NO	%
a) Buying and Selling	9	22
b) Transportation	8	19
c) Storage	7	17
d) Research and Development	4	10
e) Risk - taking	5	12
f) Product standardization & grading	2	5
g) Financing the marketing functions	6	15
TOTAL	41	100

Source: Questionnaire (Appendix C).

Similarly is an attempt to find out what other marketing functions were performed by the markers, the following responses where given as in table 5.

What the above table implied is that the marketing functions were mainly merchandising, transporting, storage and the general outlays associated with these functions. This in turn show the extent of the application of the marketing concept.

4.4.2 The price

As earlier noted, the LPG has a very high price sensitivity as attested to by both the consumers and the marketers/dealers. This was perhaps due to the existence of alternative substitutes to the product. It also need to be noted here that government imposes statutory price constraint.

TABLE 6: FIXING OF SELLING PRICE BY PPMC/MARKETERS

RESPONSE	NO	%
a) Yes	2	18
(b) Sometimes	7	64
(c) Never	2	18
TOTAL	11	100

Source: Questionnaire (Appendix C).

The price at which the marketers produce the product from the PPMC is fixed by government. The government also at times fix the price at which the marketers/dealers sell the product. As shown in table 6 above, 64% of the marketers and dealers indicated that the PPMC/Marketers fix the selling of the product.

It is observed however that in most circumstances, the retail price is not adhered to by marketers/dealers as *is the

prices of the product exist firm are seller to eaters.

There is also no geographical price differential in respect of procumbent for the PPMC despite the fact that the product can also be lifted from any of the four refineries in the country. The only benefit accruable to the marketers who lift the product from outside the Kaduna metropolis, say from Warri or Port-harcourt, is a rebate based on the transportation cost expended. Even this is limited to ₦1,180.00 per ton of the product lifted.

As to the satisfaction with the price changed by the marketers/dealers, 50% of the consumers/users indicated a positive response while 50% indicated a negative response. This is given in table 7 above:

TABLE 7: SATISFACTION WITH HE RETAIL PRICE OF THE PRODUCT

RESPONSE	NO.	%
(a) Yes	10	50
(b) No	10	50
TOTAL	**20**	**100**

Source: **Questionnaire (Appendix C).**

What the above table tend to suggest is that there may be other intervening valuables in the demand for the product. Perhaps income may be the deciding factor after price since it was said to be the most important factor in the buying of the LPG product/4.4.2 above.

4.4.3 DISTRIBUTION

On the distribution variable many questions were asked with a view to ascertain the availability and adequacy of supply as and when needed. Answering a question on the effects of the availability of the product in terms of its usage by consumers, the following responses were obtained as in table 8.

TABLE 8: EFFECTS OF THE AVAILABILITY OF THE PRODUCT

RESPONSE	NO	%
(a) Very Strongly	6	30
(b) Strongly	6	30
(c) Moderately	6	30
(d) No effect	2	10
TOTAL	**20**	**100**

Source: Questionnaire (Appendix D).

The above table thus suggest the availability of the product has strong effect on its usage. Further observations shows that consumers who switched over to substitute products as a result of the none availability of the LPG finds its difficult to come back to its usage. This is because some consumers even sell their cylinders in order to acquire kerosine stoves or electric cookers thereby foregoing the usage of the LPG entirely.

On the question of getting regular supply of the LPG product, the consumers gave the following responses as in table 9.

TABLE 9: GETTING REGULAR SUPPLY OF THE LPG BY CONSUMERS

RESPONSE	NO	%
(a) Always	6	30
(b) Sometimes	14	70
(c) Never	-	-
(d) After a long time	-	-
TOTAL	20	100

Source: Questionnaire (Appendix D).

The above table thus affirmed the existence of irregular supply of the LPG product to the consumers. In a similar vain marketers/dealers when responding to a question as to whether they get their orders filled immediately, gave their response as = table 10 below:

TABLE 10: GETTING ORDERS FILLED IMMEDIATELY/MARKETER/DEALERS

RESPONSE	NO.	%
(a) Yes	3	27
(b) No	8	73
TOTAL	11	100

Source: Questionnaire (Appendix C).

Thus 78% of the marketers and dealers indicated that they do not get their orders filled immediately. On how long it took them to be filled, they gave an average of three weeks time duration.

As to whether the marketers/dealers get their order supplied according to the quantity requested, the following response were obtained as in table 11.

TABLE 11: GETTING ORDERS SUPPLIED ACCORDING TO QUANTITY

RESPONSE	NO.	%
(a) Yes	2	18
(b) Sometimes	7	64
(c) Never	2	18
TOTAL	**9**	**100**

Source: Questionnaire (Appendix C).

It could thus be observed from the table that marketers/dealers orders are not always met according to the quantity specified. Further questions suggest that the PPMC/Marketer simply rationed the product among the marketer/dealers according to their pre-determined formula.

To probe the issue of the distribution variable further, marketers/dealers were asked about their level of satisfaction with the current distribution arrangement of the LPG product. Their response were in table 12 under.

TABLE 12: SATISFACTION WITH CURRENT DISTRIBUTION ARRANGEMENT OF THE LPG BY THE PPMC

RESPONSE	NO	%
(A) Very satisfactory	-	-
(b) Satisfactory	-	-
(c) Fairly Satisfactory	5	45
(d) Grossly differential		-
(e) Full of loopholes	6	55
TOTAL	**11**	**100**

Source: Qustionnaire (Appendix C & D).

The response thus shows dissatisfaction with he current dispensation in the distribution of the product by both marketers and the dealers of the LPG.

Transportation is also a major aspect of the distribution variable in the marketing mix. Its cost can be very exhorbitant more especially for the product under study as special containers and vehicles are required. In trying to find out who bears the transportation cost of the product the following response were given by the marketers/dealers as in table 13.

TABLE 13: BEARER OF THE COST OF TRANSPORTATION.

RESPONSE	NO	%
(a) PPMC/NNPC	-	-
(b) The Marketer/Dealers	11	100
(c) Customers	-	-
TOTAL	11	100

Source: Questionnaire (Appendix C).

Thus the marketers bear the cost of transporting the product from the PPMC depots to their filling plants and the dealers from the filling plants to their business premises. Consumers in turn are responsible for transporting the products from the dealer's premises to their point of destination.

The type of vehicles used for transporting the product include pick-up vans, lorries,bob - tail tankers and so forth.

TABLE 14: OWNERSHIP/HIRING OF TRANSPORT VEHICLES.

RESPONSE	NO	%
(a) Own	9	82
(b) Hire	2	18
TOTAL	11	100

Source: Questionnaire (Appendix C).

The question of whether the marketer/dealers own or hire the vehicles, 82% of the responses indicated that they own the vehicles while 18% stated they hired them. This is given in table 14 above.

Storage is yet another vital aspect of the distribution variable of the marketing mix. As such a question was put to the marketers/dealers as to whether they have adequate storage facilities for the product to prevent out of stock situation.

TABLE 15: AVAILABILITY OF ADEQUATE STORAGE FACILITIES.

RESPONSE	NO	%
(a) Yes	9	82
(b) No	2	18
TOTAL	11	100

Source: Questionnaire (Appendix C).

On this, 82% of the respondents indicated that they have adequate storage facilities while 18% indicated the contrary. Their responses were given in table 15.

4.4.4 PROMOTION

The promotion variable of the marketing mix should also not be under estimated in the application of the marketing concept. Marketer and dealers were asked to indicate the type of promotional activities pursued towards stimulating the sales and consumption of the LPG product. Their responses were as in table 16, under.

TABLE 16: PROMOTIONAL ACTIVITIES UNDERTAKEN BY MARKETERS AND DEALERS

RESPONSE	NO	%
(a) Advertising	1	5.5
(b) Personal selling	6	33
(c) Sales promotion	3	17
(d) Publicity	3	17
(e) All of the above	4	22
(f) None of the above	1	5.5
TOTAL	**18**	**100**

Source: Questionnaire (Appendix C).

By the above table only 22% of the respondents undertook all the promotional mix whole 33% undertook personal selling. About 5% of the respondents did not undertake any promotional activity and about the same percentage participate in advertising the products.

TABLE 17: CONSUMERS KNOWLEDGE OF THE AVAILABILITY.

RESPONSE	NO	%
(a) Advertising	2	10
(b) Publicity	2	10
(c) Sales Promotion	2	10
(d) Salesman/personal selling	2	10
(e) Friends/Neighbours	12	60
(f) Others	-	-
	20	100

Source: Questionnaire (Appendix D).

In a contradictory manner however 60% of the consumers of the product claimed to have knowledge of availability of the product through friends and neighbours while the four promotional mix only contributed 10% each in this regards in table 17 above:

From the above presentations therefore, it is apparent to state that the marketing concept in general and the philosophy of customers orientation in particular is not fully applied in the marketing of the LPG product in Kaduna metropolis. This of course is contrary to first hypothesis earlier given in 1.4

Similarly, there are other numerous factors that can be classified as hindrances to the successful application of the marketing concept in the marketing of the LPG product. major ones identified by marketers/dealers and consumers include.

- Prohibitive entry, high operating cost and exit complexities.
- Government monopoly of production, supply and pricing of the product.
- Scarcity and irregular supply of the product
- Availability of relatively cheaper substitute product.
- Limited competition
- Lack of adequate storage facilities for the product on the part of the PPMC.
- Low chance of product differentiation
- Lack of proper product awareness on the part of the public - viewed as elitist product.
- Tied distribution system - licenses and rationing
- Unscrupulous actions of the marketers/dealer such as short -loading (quantity reduction), hoarding, smuggling across our national boarders, discriminative/unsteable pricing, conditional selling.

With the above factors, it would be quite difficult if not impossible to successfully apply the marketing concept in the marketing of the LPG product. Thus there are

difficulties or complexities hindering the successful application of the marketing concept contrary to the second hypothesis as stated in 1.4 above.

CHAPTER FIVE

5.0 SUMMARY

Like any other petroleum product, LPG has been characterized by acute scarcity and irregular supply. Thus, the purpose of this study was to examine how LPG is marketed in Nigeria in order to know the factors that are responsible for its acute shortage and recommend possible solutions for the improvement in the sale and marketing of this product. It is thus against this background that a case study for some selected marketers, dealers and consumers in Kaduna metropolis was carried out in order to know from the horses mouth.

A descriptive survey research method was employed for the study, two principal sources of data were used, these were primary and secondary sources. In the primary sources, structured interview questions and questionnaires were the instruments used.

The interview questions were used on the officials of the PPMC Depot at the KRPC. The questionnaires on the other hand was employed on 3 major marketers, 3 independent marketers, 5 Gas dealers and 20 sampled consumers. Each of these selected categories have spent not less than 5 years in the business of marketing LPG and majority of the consumers have been using LPG for more than 10 years.

Both the interview questions and the questionnaire were validated by the research supervisor before they were used for collecting data for the study, the data collected were analysed using descriptive analysis of percentages. The findings of the study reveal that:

1. There are prohibitive entry procedure in business of marketing LPG, High operating costs and a lot of exit complexities.
2. The Federal Government have the monopoly of production, supply and pricing of the product.
3. Lack of adequate storage facilities for the product on the part of the PPMC
4. The refineries are very dilapidated as a result of ageing, inadequate funding and are not well- managed to give maximum performance.
5. Thus, there is always acute scarcity and irregular supply of the product.
6. Availability of relatively cheaper substitute products like kerosine, firewood and electricity.
7. There is also the problem of Tied distribution system as a result of licenses and rationing, such that this results to limited competition.
8. Also, there is low chance of product differentiation and lack of proper product awareness on the part of the public. The public viewed LPG usage as an elitist product.
9. There is also the problem of unscrupulous actions of the marketers/dealers such as short -loading (quantity reduction), hoarding, smuggling across our National boarders.
10. There is the problem of discriminative/unsteable pricing and at times conditional selling.
11. Finally, there is a problem of pipeline vandalization in case of other petroleum products which also adversely affect LPG distribution in respect of PMS and AGO supply to the LPG trucks and LPG filling

plants. It was reported on the New Nigeria of 11 July, 1997 by the former managing Director of the PPMC, Alhaji Haruna Abubakar that, between 1993 and 1997, there was 87 reported cases of pipeline vandalization and 40 cases occurred in the first half of 1997 alone.

5.2 CONCLUSIONS

Nigeria has been blessed with a wealth of petroleum resources. Therefore, the country should use these natural resources effectively and efficiently, to improve the well being of our citizens and foster our National development. The best way to do this is to actualise the marketing concept in the operations of the NNPC and other organization that deals in these resources. By so doing, we shall be able to supply our own requirement and even export surplus in order to achieve our much desired national development.

5.3 RECOMMENDATIONS:

The recommendation are varied and many ranging from those directed to the government itself to those that are directed to the marketers, dealers and even consumers.

5.3.1 TO THE GOVERNMENT:

KASHIM IBRAHIM LIBRA

(i) The energy planning policy of the NNPC need to be re-addressed to ensure that our refineries are at all times at their optimum performance levels. Hence, the refineries should remain serviceable to ensure that petroleum products are available at all times. The principle of T.A.M (turn around maintenance) should

be strictly adhered to such that the refineries are serviced as and when they fall dues.

(ii) The Government should improve the storage facilities of the LPG at the various refineries. The present LPG Depots built across the country should be linked with pipelines just as with other petroleum products to provide for easy flow of the product in case of a particular refinery break down.

(iii) The NNPC should minimise the rigorous documentation especially with regards to bridging LPG products. At the moment, a lot of cumbersome and time wasting procedures are followed. This will enhance good distribution system of the product.

(iv) There should be frequent quantity and quality control check on the marketers and the dealers by the PPMC and DPR officials to ensure compliance with laid down regulations.

(v) The petroleum industry should have guided deregulation to ensure optimum inputs by private sector that would yield better and greater result.

5.3.2 TO THE MARKETERS, DEALERS AND CONSUMERS

(i) The marketers should provide an avenue for more co-operation between them so as to form a formidable force to look for one assistance or the other from government. Example, they should unite to ensure that the cylinder standardization programme which was started more than 8 years age is implemented. This is to the advantage of the marketers with respect

to availability of spare parts.

(ii) Marketers should provide appropriate measuring equipments and faulty ones should be replaced to ensure proper refilling of customers cylinders. This is quality services as well as customers relationship.

(iii) Marketers should give dealers some subsides in order to assit them in reducing transportation cost which singularly is the factor that cause price hike in LPG to the consumers.

(iv) Dealers should assist the marketers by withholding cylinder with bad values and shroud in order to minimized incident of gas explosion.

(v) Consumers should report to the appropriate authority dealers who are selling LPG at an unsafe environment.

These recommendations I believe are not exhaustive, but would go a longer way towards achieving the much desired availability and reasonably price LPG product in Nigeria.

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1st September, 1998.

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Dear Sir/Madam,

APPLICATION FOR PERMISSION TO UNDERTAKE AN ACADEMIC RESEARCH WITHIN YOUR COMPANY

I am conducting an acadamic Research Titled: **"MARKETING LIQUIFIED PETROLEUM GAS IN NIGERIA: A CASE STUDY OF SOME SELECTED MARKETERS AND CONSUMERS IN KADUNA METROPOLIS"** towards an award of a Master of Business Administration (MBA) Degree.

In realising the above, I am seeking the permission of your Company to undertake the study. I assure you that all information so obtained shall be kept in secret confidence and should be used only for the purpose of academic research.

Should you be so magnanimous to grant the permission, I would be glad if your company would fill the attached Questionnaire for me.

Thank you for your anticipated co-operation.

Yours faithfully,

ALH. ABDULLAHI HAMZA YUSUF

KASHIM IBR

ORAL INTERVIEW QUESTIONS WITH THE PPMC/NNPC OFFICER IN CHARGE OF L.P.G. MARKETING, KADUNA DEPOT

INTRODUCTION

These questions are designed strictly for an Academic Research Exercise into the process of Marketing Liquified Petroleum Gas (LPG) in Kaduna metropolis.

Your responses will therefore be used for Academic purpose only.

A) REGISTRATION/LICENSING OF LPG MARKETERS AND DEALERS

1) Kindly explain the procedures involved for one/organisation to become a bona fide LPG Marketer/Dealer.
2) Are the procedures carried out as stipulated in the guidelines? if no, why?
3) If yes in (i), how long the process take on the average?
4) Comment freely on the factors that hinder the entry into the business of marketing LPG product.

B) PRODUCTION AND MARKETING OF LPG

1) What does marketing LPG means for your corporation? Allocating the product amongst marketers?
2) Kindly explain the procedure for marketing the LPG by your corporation.
3) At times the marketers/Dealers and consumers of the LPG experience acute shortage and irregular supply of the product. What factors are responsible for these? What provisions are put in place to avoid such shortages and unsteady supply of the product?
4) Does your corporation use LPG product? If yes, In what ways?
5) Is there in existence a strategic reserve for the LPG product?

6) Why are the LPG storage tanks in the various Depots not linked with pipelines as is the case with other products?

7) Does your corporation have adequate, trained and experienced indigenous technicians, engineers, marketers and management staff to handle its operations and maintenace as well as that of the marketers?

8) Comment freely on any other problems that hinder the successful production and marketing of the LPG by your corporation.

9) What suggestions would you like to offer to overcome such problems in the nearest future?

10) Are you a consumer/user of LPG? If yes, are you satisfied with its availability and price?

QUESTIONNAIRE FOR MARKETERS AND DEALERS OF LIQUIFIED PETROLEUM GAS (LPG)

1. Name of Business:.....
2. HeadOfficeAddress:.....
   .....
3. What is the position title of top officer responsible for the marketing function of your company?
4. Nature of Business (Please tick [ ] appropriate box)
   a) Major Marketer [ ]
   b) Independent Marketer [ ]
   c) Dealer [ ]
5. How long has your company been in the business of marketing the LPG.
   a) 1 to 2 years [ ]
   b) 2 to 3 years [ ]
   c) 3 to 5 years [ ]
   d) 5 years and above [ ]
6. How often do you make your order for the LPG product
   a) Depends on our ability to deposit funds with the PPMC/Marketers [ ]
   b) Depends on the level of our sales [ ]
   c) At fixed Interval [ ]
   d) When our stock of the product finishes [ ]
7. Do you get your orders filled immediately?
   a) Yes [ ]
   b) No [ ]
8. If no in 7 above, how long on the average does it take your order to be filled?

9. Are your orders supplied according to the quantity required?

a) Yes [ ]

b) Sometimes [ ]

c) Never [ ]

10. Who bears the cost of transporting the LPG product to your business premises?

a) PPMC/NNPC [ ]

b) The Marketer [ ]

c) Our Company [ ]

d) Our Dealers/Customers [ ]

11. What is your opinion on the current distribution arrangement of the LPG by the PPMC/NNPC?

a) Very satisfactory [ ]

b) Satisfactory [ ]

c) Fairly Satisfactory [ ]

d) Grossly Different and full of loopholes [ ]

12. Do you have adequate storage facilities for the product to prevent out-of-stock situations.

a) Yes [ ]

b) No [ ]

13. Does the PPMC/NNPC or marketers fix the price of the LPG product at which you sell to your Dealers/Customers?

a) Yes [ ]

b) Sometimes [ ]

c) Never [ ]

14. What single most important factor do you think your Dealers/Customers in deciding to buy the LPG from your Company?

a) Price [ ]

b) Availability of supply [ ]

c) proximity/Transportation Cost [ ]

d) Credit facilities offered [ ]

e) Company Image [ ]

f) Others [ ]

please specify.....

15. What marketing functions does your company undertake? (Please tick as many as applicable).

a) Buying and Selling [ ]

b) Transportation [ ]

c) Storage [ ]

d) Product Research and Development [ ]

e) Risk-taking [ ]

f) Product standardization and grading [ ]

g) Financing the marketing functions [ ]

16. What marketing mix does your company have control over in respect of the LPG marketing? (please tick as many as applcable).

a) The product [ ]

b) The price [ ]

c) The promotional activities [ ]

d) The Distribution System [ ]

17. What promotional activities does your company undertake to stimulate the sales and consumption of the LPG?

a) Advertising [ ]

b) Personal Selling [ ]

c) Sales Promotion [ ]

d) Publicity [ ]

e) All of the above [ ]

f) None of the above [ ]

18. What type of vehicles do you use for delivering the LPG?.....

19. Do you own or hire the vehicle(s)?

    a) Own [ ]

    b) Hire [ ]

20. Please freely state the problems faced by marketers/Dealers of the LPG product.

    .....

    .....

    .....

21. What possible solutions would you recommend for greater efficiency and effectiveness in the marketing of the LPG product?

    .....

    .....

    .....

QUESTIONNAIRE FOR CONSUMERS/USERS OF LIQUIFIED PETROLEUM GAS (LPG)

1. For what purpose do you buy the LPG?.....
   .....
2. How long have you been using it?.....
   .....
3. Do you use alternative sources (substitutes) in place of the LPG?
   a) Yes [ ]
   b) No [ ]
4. If yes in 3 above, what are the subsitutes?
   .....
   .....
5. Do you get regular supply of the LPG whenever you want to buy it? (Please tick [ ] as appropriates).
   a) Always [ ]
   b) Sometimes [ ]
   c) Never [ ]
   d) After a long time [ ]
6. What do you consider most when buying the LPG product?
   a) The price [ ]
   b) Availability of supply [ ]
   c) proximity/transport cost [ ]
   d) Credit facilities offered [ ]
   e) The sellers image [ ]
   f) Others [ ] please specify.
7. How do you get to know about the existent and availability of the LPG?
   a) Advertising [ ]
   b) Publicity [ ]
   c) Sales Promotion [ ]

d) Salesmen/personal selling [ ]

e) Friends/Neigbours [ ]

f) Others [ ] please specify

.....

8. Do you consider the price you pay for the LPG fair and affordable?

a) Yes [ ]

b) No [ ]

9. How has the availability or otherwise of the product affected your use of the LPG product?

a) Very Strongly [ ]

b) Strongly [ ]

c) Moderately [ ]

d) No effect [ ]

10. Comment freely on the problems you encounter in the process of buying and using the LPG product.

.....

.....

.....

11. What suggestions would you offer to enhance the availability and use of the LPG product?

.....

.....

.....

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d) Salesmen/personal selling [ ]

e) Friends/Neigbours [ ]

f) Others [ ] please specify

.....

8. Do you consider the price you pay for the LPG fair and affordable?

a) Yes [ ]

b) No [ ]

9. How has the availability or otherwise of the product affected your use of the LPG product?

a) Very Strongly [ ]

b) Strongly [ ]

c) Moderately [ ]

d) No effect [ ]

10. Comment freely on the problems you encounter in the process of buying and using the LPG product.

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11. What suggestions would you offer to enhance the availability and use of the LPG product?

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