Thesis By

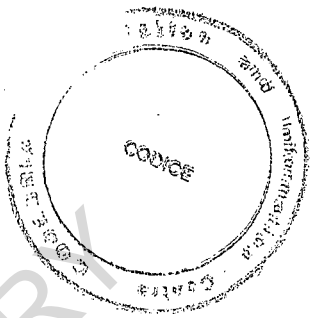
ASAJU, Adebakin Simeon

University of Ibadan, Ibadan, Nigeria

A BEHAVIOURAL STUDY OF THE RENTAL HOUSING MARKET IN ABIJAN OYO STADE OF NIGERIA

15 MARS 1995

A BEHAVIOURAL STUDY OF THE RENTAL HOUSING MARKET IN IBADAN, OYO STATE OF NIGERIA



BY

ASAJU, Adebakin Simeon
BSc; MSc; (Estate Management) (Ife), A.N.I.V.S.

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D)

IN

ESTATE MANAGEMENT

AT THE

DEPARTMENT OF ESTATE MANAGEMENT
OBAFEMI AWOLOWO UNIVERSITY,
ILE-IFE, NIGERIA.

JULY, 1994

DEDICATION

To

The Loving Memory of my grandmother, Late Mrs. Francesca Familola Osolo for her affection and motherly care in the first and a half decade of my Life.

ACKNOWLEDGEMENT

I must express my gratitude to many people through whose instrumentality God has enabled me to successfully complete this work. First and foremost, I express my profound appreciation to my Supervisor - Dr. J.I. Ighalo for his immense contribution, patience, encouragement, constructive criticisms, unwavering moral support, constant motivation and fatherly affection during the course of this study and over the years.

My profound gratitude also goes to Dr. C.A. Ajayi for encouraging my interest in academics, for his invaluable assistance and guidance particularly at the thesis proposal stage which he supervised and thereafter. It is on record that Dr. J.I. Ighalo and Dr. C.A. Ajayi provided several reading materials for the purpose of this study that I did not have to spend many hours searching for books in the Library. Both have also been sustaining my interest in academics through their wise counsel.

My special gratitude also goes to Dr. S.O. Fadare of the Department of Urban and Regional Planning for providing several reference materials, useful suggestions and advice. It is on record that Dr. S.O. Fadare took personal interest in this work, read, commented on the first draft of the thesis proposal and assisted tremendously during the write-up.

Special mention must be made of Mr. S.A. Amole of the Department of Architecture for his guidance, particularly on the methodology of study, for his constant motivation, invaluable words of advice and unflinching moral support all along.

I benefitted from several other people who read and commented on the first draft of the thesis proposal. These include Prof. Y.L. Fabiyi and Dr. O.L. Oludimu (both of the Department of Agricultural Economics), Dr. L.O. Olajuyin, Dr. I.A. Okewole, Dr. O. Olanrewaju, Dr. L.M. Olayiwola (all of the Department of Urban and Regional Planning) and Dr. I.J. Ikpo (Department of Building). It is on record that Prof. Y.L. Fabiyi and Dr. L.O. Olajuyin were constantly asking me about the progress of this work and encouraging me to pursue the work to its logical conclusion. For this, I owe them a special gratitude.

I express my gratitude to all my former lecturers in the Department for laying the solid foundation upon which I am now building. In this regard, special mention must be made of Mr. 'Yemo Akinyode, Mr. M.A.Y. Ehinmare, Mr. O.S. Agagu and others to numerous to be listed here.

Special gratitude goes to some of my colleagues in the Department from whom I have in one way or the other benefitted intellectually particularly Mr. B.T. Aluko, Mr. S.I. Okoror, Mr. F.O. Ewemade, Mr. O. Osaghae and Mr. F.O. Ogunba.

I am most grateful to my wife Adeola and my children - Anthony and Adeleke for their understanding. I owe a special gratitude to Mr. 'Niyi Ayoola of the Department of Educational Technology for his patience, thoroughness and a job well done in typing the thesis.

I must express my profound appreciation to the Council for the Development of Social science Research in Africa (CODESRIA) Dakar, SENEGAL for the award given me under the council's small grants for Thesis programme. In addition, the council has since constantly been supplying me with its quarterly bulletin - CODESRIA BULLETIN which has tremendously increased my intellectual and interest in academics. My prayer is that CODESRIA and I will continue to have a fruitful working relationship.

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABSTRACT

The rental Housing Market Subsector in several cities of Nigeria is confronted with a lot of problems prominent amongst which is the escalating rental prices of various categories of rental housing. This study represents an attempt to analyse the factors which are responsible for these rental levels with particular reference to the rental housing market in Ibadan, Oyo State of Nigeria.

Specific objectives of study include:

(i) To examine the socio-economic characteristics of rental households in residential districts of Ibadan.

(ii) To analyze the rental price levels in the residential districts.

(iii) To examine the relative importance of the factors affecting rental price levels in the residential districts.

(iv) To compare and contrast the existing practices of rental housing management between landlords of rental properties and formal property management companies.

(v) To make appropriate policy recommendations with a view to achieving a more functional, effective and efficient rental housing delivery system in Nigeria.

In pursuance of the objectives of study, primary data were obtained from two main sources. Firstly, data on socio-economic characteristics of rental households were obtained from questionnaires administered on rental households in the residential districts in Ibadan. Secondly, data on rental housing management information were obtained from another set of questionnaires administered on a sample of 50 Estate Surveyors and Valuers at their work places.

The secondary sources of data included several published documents and records of established government corporations, agencies and ministries as well as the Central Bank of Nigeria.

The data for the study was analysed with the aid of descriptive statistics with respect to data connected with the socio-economic characteristics of rental households and data on rental housing management. In addition, inferential statistics (correlation and multiple regression) were used in analysing the factors influencing rental levels. The results were supplemented with some sketches of explanations such as the qualitative differentiation among the residential districts.

With respect to the high density residential district, the study showed (in terms of the validation of the original hypotheses) that rental levels have largely been positively influenced by income and cost of construction. In the medium density area, the only factors which were found to have positive significant influence on rent were cost of construction, average price index of building materials and lending rate. In the low density area, income, average price index of building materials, lending rate and inflation rate were factors found to have positive significant influence on rental levels.

Based on the findings of study, appropriate policy recommendations were offered with a view to achieving a more functional, effective and efficient rental housing delivery system in Nigeria. These include, inter-alia, facilitating land acquisition for housing development, mobilising adequate finance for housing development and reducing the cost of finance, developing local building material resources, reducing costs through cheap and functional designs and development of effective and efficient rental housing management and maintenance strategies.

CHAPTER ONE

BACKGROUND AND OBJECTIVES OF STUDY

1.1 INTRODUCTION

The rental housing market is the segment of the housing market which is concerned with the letting of housing units. There are other smaller sub-markets within this market according to housing types. Thus, we have markets for tenement properties, blocks of flats, self contained bungalows and duplexes. The other segment of the housing market is the sales housing sector which refers to the market in which houses are bought and sold. This thesis focusses on the rental sub-sector.

By housing is meant here not only the shelter structure, but also the lot on which the shelter stands and the services provided to the lot such as water and energy supply, waste disposal, drainage and fire and police protection.

The rental housing industry in a large city can be described as a case of monopolistic competition among a large group of sellers (Rapkin et al, 1953). The product is differentiated by quality, location, layout, rooms per unit, and the like. Hence, within each of the smaller sub-markets, different rents may be charged based on the quality differentiations of the individual units. In general, the number of sellers is large enough and the largest firm is small enough in relation to the size of the whole market so that the effects of one firm's decisions on the others can be safely ignored, and it can be assumed that each building owner behaves as an atomistic competitor.

The supply of space offered by the rental housing industry takes the form of a distribution of space by rent level per room, with the higher quality units commanding the higher rents. Within this rent, quality distributions are constrained only by the housing codes. The building owner can "move" his building either up or down, depending upon possibilities for profit indicated by the market. He accomplishes such a move by remodelling, by varying his outlays for maintenance or operation, or by some combination of these three. At the same time, expenditures by consumers in the form of rent paid provide a market evaluation of the services provided. In general, the higher the quality of housing service offered, the higher the rent consumers will pay. Depending upon the problem at hand, the output of service in a given building can therefore be measured either by the annual cost of factor inputs or the annual gross rent receipts. Of course, rent and cost are acceptable units of account for intertemporal comparisons only if we abstract from cyclical and secular changes in price (Heilbrun, 1964).

Rental housing investment does not exist in isolation. Rather, it is in competition, for the available meagre resources, with an endless array of investment opportunities in the large investment market: Company shares and stocks in the stock exchange, property bonds in insurance companies, property shares in property development companies, debenture stock and of course gilt-edged securities issued by government. There are also investment opportunities in agricultural production, manufacturing and general merchandising business. Implicitly, therefore, an investor in rental property must have been motivated by certain fundamental factors. However, a very

significant advantage to property owners of investing in rental property is that they can refinance the property and borrow money for other purposes, such as fixing up the property or using the money for other investments or personal uses.

Alternative opportunities in the rental housing sub-sector include tenement properties, blocks of flats, bungalows and duplexes and maissonnettes. A prudent prospective investor will study the demand patterns in the market before a decision to embark on development so as to provide real estate product that will satisfy his investment objectives and at the same time to meet the requirements of the potential final users. However, no matter the alternative development opportunities opted for, a basic consideration to always bear in mind is that private housing development for a private market is first, last and all the time a business operation conducted for profit, and the merit of decisions is always judged by their effect upon profit.

The quality of service offered is one of the variables that the owner of a rental structure can manipulate in attempting to maximize his return (Heilbrun, 1964). This quality depends upon three elements: (i) the original cost of building the structure and subsequent investment in remodelling, if any - these expenditures establish the spaciousness of the apartment units and determine the kind and extent of equipment they contain (ii) the level of quality at which structure and equipment are maintained (iii) the level of operating outlays that the owner applies to the given structure and that determines the quality and extent of operating services he can offer. Two other factors that have important effect on housing

quality when broadly defined are the social characteristics of tenants and the quality of the neighbourhood as an environment.

Marketing rental housing is different from marketing for - sale housing, just as marketing single-family detached houses is different from marketing town houses. The tools may be the same but the techniques are different. For rental housing, a rental manual is normally prepared which includes floor plans, a rent schedule, a sample lease as well as detailed information on the buildings and amenities and possibly information on the developer's reputation. In the model rental units, a developer would stick to standard items. A developer would not include any built-in-items which would not be included in the rental units. Newspaper advertising is a must for rental housing because people looking for apartments or houses always read the classified advertisements. A developer should not overlook the fact that satisfied tenants are typically the best rental agents. In addition, a simple "for rent" sign in front of the development can help rent units.

The developer of rental housing is faced with a unique problem (O'mara, 1978). He must constantly merchandise his project. If buildings are not adequately maintained and if repairs are not made promptly, he may be faced with many vacant units. After development, he is in a service business. Adequate management is thus a rental developer's biggest plus. Supervision of maintenance should carry top priority, and most complaints, unless they are major, should be handled satisfactorily and quickly too. Tenant committees or associations can be formed especially in large projects, to keep tenants informed of problems or changes in management policies. They should

be fora in which to address and solve minor problems before they become major ones. From the foregoing discussion, it could be seen that rental housing market by nature involves very complex and interacting decision networks with the three key participants being the landlords (entrepreneur owners), the tenants (consumers) and goverment.

Available literature on housing in Nigeria is dominated by a concentration on supply side. It has focussed on the study of constraints in the Nigerian housing delivery system and the formulation and evaluation of policies and strategies for removing these constraints. Constraints have been identified as the relatively high cost of inputs in housing development; the availability, cost and terms of housing finance, access to and cost of acquiring title to building plots, limited capacity of the building industry, as well as bureaucratic bottlenecks in the building plan approval process (Wahab, 1978; Onibokun, 1976; 1982; Seymour, 1978; Abiodun, 1980; Falegan, 1980).

The present study proposes to examine the problems of both the demand and supply sides. This approach departs from the existing practice and so fills a gap in the "State of the Art". On the basis of the identified problems, appropriate policy recommendations will be made with a view to balancing the demand and supply and thus achieving equity.

1.2 STATEMENT OF THE PROBLEM

Some of the most important decisions of life concern career, family and housing. There is no doubt about the importance of the first two, but the concern here is the housing decision. Housing

is one of the three basic needs of mankind and it is the most important for the physical survival of man after the provision of food. It is also one of the best indications of a person's standard of living and of his place in society. In addition, housing, either in unit or multiple form is a significant component of the physical form and structure of a community, while the human and family content of the house is part of the very spirit of life and prosperity of the society (Adeniyi, 1972).

Housing is among the most important decisions for several reasons. Most families spend over 30 percent of their gross income on housing (Ismail, 1991), which is usually their largest expense. Also, the housing decision has a significant impact on the daily life because it determines the amount of time spent in commuting to work or running errands, and it has a large part in determining our social contacts. Unfortunately, in spite of its significance, housing remains one of the world's most pressing problems, one which is continually growing.

Housing difficulties, particularly of low income groups, have been complicated by conditions peculiar to developing countries with rapid growth, inflated real estate values, specualtive activity, influx of poor immigrants and lack of planning. Housing problems and therefore, housing needs are manifested in overcrowding, in poor and inadequate social amenities, in unsatisfactory and unwholesome environmental conditions and urban squalor, in the absence of open space, in the over-development of land area leading to the over-crowding of buildings in accessibility within residential areas and in the scarcity and high cost of building materials (Onibokun, 1982).

The problem of housing provision either individually, co-operatively or by the government is more critical now than ever before in most developing countries. Various estimates by the United Nations Centre for Housing, Building and Planning have shown that, as of 1970, 73.69% of the World's 3,592 million population lived in developing world with housing stock of only about 520 million. Another set of statistics show that between 1970-2000, new constructions and replacements in the developing world would be between 886 to 1,052 million while studies, since 1970, have shown that the stock of new housing added to the old stock is decreasing most rapidly in the developing countries because of their proverty and their underdeveloped economy combined with their poor technological development (Olateju, 1990).

In Nigeria, in particular, the housing problem in many of her towns and cities is quite acute today. As observed by Wahab (1990), this situation has not suddenly occured but there has been a build up over time. Past governments' efforts to tackle the problem through direct intervention (construction of houses either to let or sell) has failed to achieve the desired results. This failure, he attributed to (i) the adoption of high standard of housing determined by material specification and space per housing unit (ii) the level of housing finance and (iii) the interest which home loans have attracted over the years from 3% in 1975 to 19% in 1990 charged by the Federal Mortgage Bank of Nigeria (Wahab, 1990).

In the country today, the real estate sector of the economy, like other sectors of the economy, has had its own negative share of the present economic predicament in the country, with the high infl-

ation rate further compounding the problems of housing development. Characteristically, it has always been a question of perpetrating increase in vacancy rates and reduction in rental incomes of luxury properties, acute shortage and escalating rents of low and middle income rented accommodation and astronomical rises in the prices of building materials for construction and maintenance (Ashaolu, 1986).

The crisis in rental housing has come to the forefront in many urban centres in Nigeria. Concentration of industries, employment opportunities and other basic human infrastructures in a few state capitals and other advantaged cities act as a pull factor causing an uncontrolled migration from the rural areas to these few urban centres. Perhaps, one of the important problems created by this uncontrolled migration is inadequate housing. Various studies have shown that inadequate housing is the consequence of rapid expansion of urban population (Mabogunje, 1984; Abiodun 1976; Onibokun, 1986).

The problem of inadequate housing is compounded by the devaluation of the naira through the Foreign Exchange Market which has reduced real income. With reduced real income and high rates of inflation, an average family cannot afford to save substantially, if at all, towards the building or purchase of its own house. There is a large disparity between the huge cost of housing and the income of prospective home owners. To illustrate the enormity of the problem, Wahab (1990), compared the cost of a wing of a duplex at the Dolphin scheme in Lagos which was ₦850,000 with the ₦25,000 consolidated annual salary of the Director Generals in the Public sector and suggested that to bring about normalcy in the housing market and promote affordability, it would be necessary

to either reduce housing cost or increase the income of the people substantially. Furthermore, many rental property owners are concerned that operating expenses are increasing faster than their rental income.

Apart from the problem of inadequate supply of housing and high cost of maintenance, the tenants, who are already faced with soaring cost of living under the austered climate, are disturbed with an excessive house rent in relation to their earnings. The consensus of opinion in Nigeria is that rapid urban growth has seriously aggravated the shortage of dwelling units in the country resulting in overcrowding, high rent, slum and squatter settlements (Onibokun, 1990). As observed in the Third National Development Plan: "As a result of acute shortage of suitable rental accommodation especially for the low income groups in our major cities and towns, rents are extremely high and the average urban worker often has to pay as much as 40 percent of his monthly income in rent. This is a major factor in the distortion of income distribution in favour of the property owning class and constitutes an obstacle in the realisation of one of the long-term goals of our development effort - the attainment of a just and egalitarian society. There is no area of social service where the urban worker in Nigeria now needs relief more desperately than housing". This statement is more valid today than when it was made.

Substantial portion of household budgets are spent on housing and related services, not only among wealthy but also among poor households. On average, households spend between 15 and 25 per cent of their total expenditure on housing (World Bank, 1980) although the share tends to be lower in some countries and may vary considerably between and within income groups. Presently in Nigeria, percentage of monthly income paid as rent has risen more than the

recommendation worldwide that no employee should have to pay more than 33½% of his income as rent (Ismail, 1991). The shortage in the supply of housing has made this goal seemingly unattainable.

As a result of this problem of excessive house rent, some states in Nigeria have proposed edicts on rent control as a short-term solution. The edicts threaten to curtail needed rent increases and clear up the current imbalance of demand and supply of rental properties. However, the enactments of rent control ordinances have caused concern among apartment owners and investors on whose assessments of future income, decisions about the construction of new apartment structures and the purchase and maintenance of existing structures depend heavily.

There appears a fundamental reason why landlords often fail to comply with rent regulations. The principal grievance is that authorized rents in many cases continue to remain frozen at levels which, because of inflation, long ago become obsolete. They, therefore, demand key money or other forms of supplementary payments from tenants to bridge the gap between controlled and market level rents. Furthermore, rent control or its prospects, adds an element of uncertainty to estimates of future rental income. The uncertainty and concern exist even though most rent control ordinances provided for the possibility of some rent increases. Uncertainties exist concerning the types of cost increases that landlords will be permitted to pass through, the proportion of such increases that will be allowed to be reflected in higher rents, and the speed with which political bodies charged with administration of rent control ordinances will react to

landlord petitions. Critics of rent control regulations have also asserted that the ordinances worsen the existing inadequate supply of housing accommodation, adversely affect the ability of the landlords to maintain their properties and that rent regulation has actually graduated to rent freezing in some states of the country.

There are also problems related to government policies. Past governments' efforts to solve the problem has not produced the desired results. It has even been observed that the various governments of the Federation, through their actions and issuance of policy statements had unwillingly added to the problems of the housing industry (Onibokun, 1990). Three areas identified by Onibokun include:

(i) Undue delay in the building plan approval process

(ii) Sub-division of large building contracts into bits (in an attempt to encourage indigeneous contractors to grow) which makes economics of scale unattainable. and

(iii) The imposition of turnover tax on the housing industry.

The forces which presently militate against a solution to the housing problem are philosophical and practical. First, there was inertia on the part of the state to accept social responsibility to provide housing for the masses. When finally the responsibility was accepted, a Land Use Act was promulgated whose operation was an antithesis to the objective of providing housing for the masses and the antithesis manifested itself in the disaster which the Second Republic (1979 - 1983) produced as its housing programme (Ismail, 1991). These were estates which were wrongly located and which lacked infrastructure and which therefore did not meet the immediate needs of those who required housing. This simply

amounted to misallocation of scarce resources. The practical problems include the high cost of land and a difficult supply process for those who are able to pay the high cost. There is also the high cost of borrowing.

From the above, it is submitted that housing is a multi-faceted problem whose solutions should be found through a comprehensive examination of the various factors (legal, institutional, technical, etc.) which contribute to the problem. Briefly, the problem is the need to ensure an adequate supply (qualitatively and quantitatively) of houses to match an ever-growing demand so as to produce rents which are reasonable to meet the resources of various income groups within the community and which are equitable in terms of returns to investors in housing.

Several questions are considered relevant in the light of the above exposition: What are the problems of rental housing market in Nigeria? What are the factors responsible for the skyrocketting prices of rental accommodation in Nigeria? In the light of the identified problems, what is the attractive ness of rental housing as an investment medium compared with other investment opportunities? What has been the impact of the various government policies on the housing sector - particularly the rental sub-sector? Finally, what whould be the appropriate policy directions with a view to creating a more functional and effective rental housing delivery system in the country? This study is intended to address these pertinent questions among others.

1.3 OBJECTIVES OF STUDY

The study is designed towards accomplishing the following objectives:

(i) To examine the socio-economic characteristics of rental households in residential districts of Ibadan.

(ii) To analyze the rental price levels in the residential districts.

(iii) To examine the relative importance of the factors affecting rental price levels in the residential districts.

(iv) To compare and contrast the existing practices of rental housing management between landlords of rental properties and formal property management companies.

(v) To make appropriate policy recommendations with a view to achieving a more functional, effective and efficient rental housing delivery system in Ibadan.

1.4 JUSTIFICATION OF THE PROPOSED RESEARCH

This study can be justified on a number of grounds. Although a lot of studies have been conducted in the area of housing market, many of the studies did not pay attention to economic logic as would interest an Estate Surveyor and Valuer. Although some of the studies (Onibokun, 1978; Abiodun, 1980; Mabogunje, 1984) show that inadequate housing is the consequence of rapid expansion of urban population, a closer look at the property market shows that the situation in the market is more than that of inadequate housing.

Since the ailing national economy has crippled the already risky property market and with the prime position of housing in human life, the need to understand the forces threatening its continued production and maintenance cannot be over-emphasized. Such a study would in turn help to illuminate a fair assessment

of prevailing public policies and expected steps at sustaining rental housing as an indispensable source of housing supply. Expectedly, such policy formulation should be informed by a careful understanding of the behaviour of participants in the urban housing markets. Infact it has been argued that little information on market behaviour is available to policy makers of developing countries.

Such basic information is needed for improved project design and even more importantly, for improved sector-wide policies. Furthermore, the general apprehension of the slump in property market requires an indepth understanding via empirical study to illuminate realistic policy directions. Such study would also enable us to get acquainted with the objectives, constraints and possible reactions to the present developments in the market of the different interested groups in the rental housing market. Housing markets are local and diverse. What is true in one city, even within a country is not necessarily true in another, so it is justified to extend rental housing market analysis to a wide variety of places.

For the estate surveyor and valuer to be able to offer professional advice to the different interested participants in the rental housing market, he must be versed in its current operation which necessitates an empirical study as proposed here. Finally, active and efficient government intervention in the housing markets require detailed knowledge of housing market parameters and problems. Infact, in developed countries, govern-

nments have sponsored major studies of housing markets which were explicitly designed to facilitate choices among alternative housing policy instruments. In Nigeria most of the existing studies on housing market are rarely linked with policy applications. Furthermore little is known concerning the impact on housing demand of institutional features of housing market such as the availability of housing finance, rent control, or laws and practices concerning tenure and occupancy rights, and little is known concerning the role of inflation on housing demand. The present study will help fill this gap in knowledge.

1.5 METHODOLOGICAL ISSUES IN THE STUDY

The research process aims at arriving at dependable solutions to problems through the planned and systematic collection, analysis, and interpretation of data. According to Churchhill (1979), thus process is a sequence of steps comprising of the following stages:

(i) Problem formulation
(ii) Research design
(iii) Determination of Method of Data collection and design of data collection methods
(iv) Sample design and data collection
(v) Research report.

The methodology utilized in accomplishing the above sequence of steps is normally determined by two factors: The purpose of the research study and the nature of the problem to be investigated. It is highly essential that there should be congruence between the problem being investigated and the methodology utilized. Churchill (1979)

also identified the basic considerations involved in the choice of analysis method. According to him, one useful classification of these considerations is that the appropriate technique depends upon (i) the type of data, (ii) the research design, and (iii) the assumptions underlying the test statistic and its related consideration, the power of the test.

Moler (1980) provides much tighter classification of the research process into three categories namely, theoretical, empirical and normative; and labels them as levels of analysis while at the same time emphasizing that they are interrelated and complementary.

In the light of the above exposition, the following methodology will be utilized in accomplishing the research objectives:

(i) The theoretical component

(ii) The empirical component

The theoretical component will provide theoretical models upon which a conceptual foundation can be built for the empirical level of analysis. The conceptual framework would establish the relevant variables, suggest the possible relationships among the variables and highlight specific hypotheses which need to be investigated in this study.

The empirical component will involve:

(i) Questionnaire survey of a sample of rental households and estate surveying and valuation firms in Ibadan with a view to eliciting their views on issues concerning the rental housing market.

(ii) Personal interviews of the officials of the Estate and

Planning Departments of Ministry of Lands and Housing, Ibadan, Oyo State, Officials of the Property Development Corporation, Ibadan, Oyo State, Officials of Estate Department, Ibadan Municipal Government, Mapo Hall, officials of Estate Department, Ibadan Municipal Planning Authority, Ring Road, Ibadan, Officials of Lands Deed Registry, Ministry of Lands and Housing, Secretariat, Ibadan and the Estate Surveyors of the Federal Mortgage Bank of Nigeria, Ring Road, Ibadan.

At the normative level of analysis, the purpose is to synthesize the preceeding two levels of analysis. This is the level at which distillation and evaluation of findings are carried out upon which appropriate policy recommendations. Having examined the implications of the results for future research, an attempt will be made to discuss the direction that future research should take. Also, the practical implications of the study for the urban rental housing market in Nigeria would be pointed out in this final stage of the discussion.

To carry out the above levels of analysis successfully, we would need certain pieces of information. This is the focus of the next section of this chapter.

1.6 SOURCES OF DATA

The study will be based on data to be collected from two sources viz: Primary and secondary sources.

The primary source will consist of structured/open-ended questionnaires to be administered on rental households at their

dwelling places and Estate Surveyors and Valuers at their work places. The secondary source will include the Ibadan Land Use Map to be collected from the Ibadan Metropolitical Planning Authority, the Ibadan base Map (Street Guide), property management files of Estate Surveying and Valuation Firms, Officials documents and records of established government corporations, agencies and ministries, journals of financing institutions, books journals, newspapers and magazines and other relevant literature.

One basic issue that will guide the choice of information required for the study is that in assessing dwellings, housing will be seen in its multi-dimensional nature, that is, in relation to the overall environment. Housing should include, therefore, the dwelling structure and design, the housing services, the inhabitant subsystem, the neighbourhood subsystem and the overall management subsystem (U.N.O., 1975, Onibokun, 1973). All these variables will have influence either positive or negative on the inhabitants' state of mind.

Based on this and relevant to the study, the questionnaire survey will elicit information on the enumeration districts, household characteristics, dwelling structure and design housing services and utilities, rental price levels, public utilities and the neighbourhood environment.

1.7 PLAN OF THE STUDY

In the light of the exposition about the nature of the problem to be investigated in this study, the research objectives

and the methodological issues, the remaining part of this thesis is laid out as follows:

Chapter two focusses on a multi-disciplinary review of relevant literature. Here attempt is made to review the pertinent literature and to assess the extent to which the various perspective could be useful with respect to the problem being investigated here. The chapter uses some theoretical models to build a conceptual framework which attempt to integrate the pertinent variables from the perspectives based on the fundamental criterion of conceptual relevance to the research problem.

Chapter three focusses on the case study - Ibadan the Capital of Oyo State and its residential sub-markets. Issues examined here include the historical and geographical background of the city, the land use patterns, the types and patterns of Residential Development, the trends in rental values, factors influencing the rental levels and the residential property maintenance culture in Ibadan. Also examined are issues in rent reviews and the landlord tenant stalemate where landlords personally manage tenanted properties.

Chapter four examines the research methodology. Issues discussed here include the nature of the data to be used in the study, the sampling procedure and the analytical techniques employed in the study.

Chapter five examines some socio economic data relating to rental households in the rental submarkets of Ibadan.

Chapter seven presents the statistical results while chapter eight distills the empirical results of the earlier chapters upon which policy recommendation and rental housing policy measures are based in chapter nine. These recommendations and summary of findings, concluding remarks and suggested future research direction are covered in Chapter ten.

1.8 SUMMARY OF CHAPTER

This is the introductory chapter of this study. The purpose is to present the object and the plan of this work. Issues dealt with include the problem formulation, the objectives of study, justification for study and the methodological issues of the study. In the chapter which follows, we will focus on the theoretical and conceptual framework of the study.

CHAPTER TWO

THEORETICAL AND CONCEPTUAL FRAMEWORK

2.1 INTRODUCTION

The purpose of this chapter is to build up a theoretical foundation for this study through an extensive and multi-disciplinary review of pertinent literature. It is hoped that through such review, we will be able to indicate the focus or orientation of previous studies, the methodologies adopted in these previous empirical studies, the findings of such studies the models tested and by so doing identify gaps and limitations that will be considered relevant for this present study. Such a review will also enable us to build a conceptual framework upon which testable hypotheses can be formulated.

2.2 REVIEW OF RELEVANT EMPIRICAL STUDIES

Housing markets have been more intensively studied in the developed countries especially in the United States and Great Britain unlike the developing countries where there are few empirical studies. The central concern of such studies have been to establish the relationship between residential location of city dwellers and the differences in rental price levels in relation to other spatial economies such as accessibility, household income and expenditure. For examples, see Quigley (1979), Weicher (1979) and Deleeuw (1971).

The assumption made as regards the relationship is that in a housing market equilibrium, a given dwelling is occupied by a household which offers the highest rental for it. Thus the function

giving the rent - offers of different households is a crucial one for finding an equilibrum allocation of households to dwelling of different types. From the comparison of these rent - offer functions of different households, the function relating dwelling rentals to size in a market equilibrum is easily derived. Generally, a household rent-offers functions are related to household income, expenditure on other goods, location of employment and accessibility to other places of interest. The relationships are subject to different and conflicting interpretations and therefore allocation of households to different dwelling types based on rental level cannot be explained singly by just one rent-offer function but instead by a combination of them. This approach has been pursued by past scholars when trying to relate the rent-offer function to the various residential patterns.

Therefore, in order to understand or explain the residential location of city dwellers, it is necessary to examine the rental differences that leave them indifferent among locations with different accessibilities. Thus Nelson (1973) argued that models that derive compensating rent differentals have been used for this purpose. Such models focus on the differences in transportation cost at different residential locations in urban area. Rent differential among residential districts are then assumed to compensate for these differences in transportation costs. In measuring such rent differential among districts, the approach has been to use cost incurred in movement to a single central location within a city.

The adoption of such an approach has some inherent weaknesses. In the first instance, there is over-simplification of transportation measurement. Accessibility is usually expressed as the physical distance to one central location. Obviously, accessibility should include much more than a central point distance and the physical distance measures. Consideration should be on accessibility to different locations such as employment modes, public facilities, friends and relatives locations with respect to a particular household on one hand, and the cost and the time taken in getting to these locations. (See Osaghae, Igboko and Fadare, 1993)

Secondly, the welfare loss to the residents caused by a greater travel distance to a central location is not measured appropriately by the increase in total transportation costs. If we consider an extreme situation where transportation cost decrease with distance from the city centre due to a rapid fall in the number of trips made as the cost per trip rises, then this would lead to inappropriate conclusion about the behaviour of rents.

It has been argued that if travel cost to work are nil or very low, households will be prepared to pay the highest rents for accommodation and therefore live very close to their working places. Blank and Winnik (1953), for example, noted that the most important factor in determining where an individual household will locate is the distance from his or her job or business. Ernest and Fisher (1964) also agree that the most important factor in analysing a local housing market is the distance to employment centres. The assertion was supported by a 1964 survey conducted by the University of Michigan's Survey Research Centre in which more than half of the

the sampled population said that living close to the head of household's place of work was important, and almost one third felt this to be a very important factor (Lansing and Mueller, 1964).

As a follow-up to this observation, Balchin and Kieve (1982), used the "Travel Cost and Housing Cost Trade-off Theory" propounded by Wingo (1961) to explain the changes in residential locations of urban dwellers. The theory assumes that households of the same income group will be prepared to pay over a period of time the same real aggregate cost of travel and housing. An increase in travel cost for the households may lead to migration into areas of lower price houses. On the other hand, if travel cost decreases, the movement will be to a more expensive housing. This theory assumed the normal working of the price mechanism which implies that the very high residential values are close to the Central Business District (C.B.D.) and the low in the outer sub-urban.

Households are therefore faced with the problem of justaposing these various rent offer functions to determine its equilibrium location in any urban centre. This is evident in Alonso's theory of urban land market, where he claimed that "satisfaction is the relevant criterion of optimal location" for households faced with residential choice. For a household, given his income and his pattern of taste will seek an optimal location to balance the rental costs and bother of commuting against the advantages of cheaper land with increasing distance from the city centre. "Taste" in this regards has consideration for many households needs that are competing for the household's income. Therefore,

the bid rent curve of individual will be such that for any given curve, the individual will be equally satisfied at every location at a price set by the curve (Alonso, 1950).

Studies have shown that renter households respond strongly to real income and to the price of housing services relative to the general price level in their decisions about the quality of housing services to consume (Deleeuw and Ekanem (1973); Turner (1972); Muth (1978). But opinions vary widely about the price and income elasticities of demand of housing. Some researchers are of the view that since housing is a necessity in some sense, then the quantity of housing demanded changes less than proportionally in response to change in price or income with respect to price and income. In this school of thought is Morton (1985) who opined that "because of the absolute necessity of shelter, housing stands with food very high in the order of urgency. Housing expenditure accordingly do not bear a constant but a decreasing ratio to income". Maisel (1953) offers a similar opinion to justify her belief that "housing demand is highly inelastic with respect to price". But the converse is generally true as many studies have shown that high income households do not have to trade-off travel coats and housing cost - they can afford both. The rich generally prefer housing in the sub-urban where they can benefit from a better environment and open space and where they can segregate themselves from lower socio-economic group. It may only be within the outer areas of the cities that sites are available for the construction of new and expensive residential dwelling.

Rather than using accessibility to explaining residential differentiation, some researchers have evolved the use of socio-

economic status to the explanation of residential differentiation in cities. They have suggested a gradient of increasing status with distance from the city centre (Johnston, 1973; Ansa, 1980). Ansa found out that income and education are very significant variables in explaining differentiation in his study of Calabar. Becker (1965) came out with a modified technique to urban dwellers' decision making to the theory of residential location. He postulated that the relationship between residential location and housing rent can be constrained by the introduction of household's income. This can be called the "Consumer Full Income" which is equal to the maximum income the consumer can earn.

Tuccillo et at (1982) focussed on various housing policy instruments and analysed their effects on housing markets. The scope of their work is limited to describing programs and policies that influence owner-occupied mortgage financing in some way, either directly through the behaviour of mortgage market institutions or directly by subsidizing the borrower's interest cost. The authors consider understanding of the effects of the various housing policy instruments and their interactions important in several ways: First because it improves the formulation of efficient housing policy; Second because macro policies are often based on forecasts of housing activity that implicitly or explicitly model the effects of these policies on housing production, and third, because the sorts of changes discussed are likely to change important parameters, making old regressions obsolete.

The basic framework is taken from Penner and Silber (1973). The argue (i) that mortage market policies interact some reinforcing each other and some cancelling each other out suggesting the importance of co-ordinating policy (ii) that the use of two policies that individually might improve the mortgage market could, if pursued simultaneously, be much less effective and (iii) that policies that are effective in one institutional climate may not be effective in another.

The authors concluded (i) that the interactive effects of these policy types mean that the impact of any particular set of actions is dependent on the specific supply and demand relationships present in mortgage markets at the time of the policy measure. This suggests that the use of forecasting models to assess policy will produce misleading results unless the parameters of those models are flexible enough to accommodate a number of situations (ii) that the interaction of various policies requires a co-ordinated approach to policy making lest the intended goals of one policy be unintentionally thwarted by the impact of another.

Beckhoudt (1982) investigates the effects of income-level uncertainty on urban household behaviour. The principal purpose of the paper is to explore the theoretical issues that emerge when uncertainty affects residential housing demand and location, issues that are interesting in their own right. The exercise is not without empirical interest, however. At present in many countries, unemployment rates are relatively high, resulting in

uncertainty on households income levels. That such uncertainty can theoretically affect housing demand and desired residential location in urban areas may be worth investigating empirically.

An econometric argument for the empirical significance of the model is noted in the concluding part of the work. The model is similar to but, except the introduction of uncertainty, simpler than those of Alonso and Muth and a comparative static analysis is provided.

Andrulis (1982) considers the decision of an individual household to change either its residence, its workplace, or both, within an urban area, when there is uncertainty regarding the future characteristics of the new job or the new residence. The decision of household to change either its residence, or its workplace, or both simultaneously, is treated as an endogeneous decision made in the presence of uncertainty regarding the future characteristics of the new job or residence. This is analysed within a model which is explicity spatial. Risk aversion is found to have implications for equilibrum location and the decision to move. Further, the costs of risk are qualitatively different from those of transaction costs and changes in commuting costs. The emphasis is upon the role of uncertainty, expressed as the cost of risk, but other costs of moving are also considered, notably transactions costs and changes in commuting costs.

Kent (1983) showed the relationships between income and price elasticities which incorporate various combinations of the three decisions pertaining to the demand for housing. These decisions are (i) household formation (ii) tenure choice and (iii) how much housing

to consume, given the household formation and tenure choice decisions. Kent's work is important because previous works in the area had some inadequacies. For example, Jaffe and Rosen (1976) in developing a small model of the housing, mortgage and deposit sectors of the United States economy, distinguish the household formation and tenure choice decisions. In discussing the demand for housing, they use the number of units as the dependent variable; they do not discuss the third decision above. Jaffe and Rosen do not discuss the relationships between income and price elasticities incorporating various numbers of the three decisions.

Similarly, in discussing housing demand. Byatt et al (1973) recognise that elasticities vary depending upon how many of the three decisions are incorporated into the equation estimated, but also do not show the relationship between the various elasticities.

Brueckner (1986) developed a theoretical housing model embodying the approach of the hedonic price literature. Instead of focussing on scalar "housing service" consumption measure, the model portrays housing as a commodity with two attributes; floor space and yard space. Developers react to a consumer bid-rent function, which relates dwelling rent to floor space, yard space, and location, in choosing the profit maximizing characteristics of their housing complexes. The spatial behaviour of the developer's choice variables is investigated (an interesting question is whether yards are larger farther from the urban centre), and a comparative static analysis of the housing market equilibrum

is presented. Brueckner's approach differ from the hall mark of the thriving theoretical literature on urban spatial structure begun by Alonso, Muth and Mills which is the assumption that consumers purchase a unidimensional commodity called "housing services" which is produced with inputs of land and capital. In contrast, the growing empirical hedonic price literature: Quigley and Grether (19) and Mieszkowski (19) is based on the assumption that housing is a multifaceted commodity whose consumption cannot be captured by a scalar housing service measure. Brueckner's work is very significant. Although Rosen (1974) provided an abstract analysis of the market for such a commodity, which we viewed as providing "implicit" markets for the commodity's various attributes, little effort has been expended analyzing theoretical housing models embodying the implicit market approach.

Bruechner's work help tie together the divergent strands of the housing economics literature by providing such an analysis. An urban spatial model is developed in which consumers value two housing attributes: floor space and yard space. Housing developers take account of the consumer bid rent function, which relates dwelling rent to floor space, yard space, and location, in choosing the profit maximizing characteristics of their housing complexes. A principal goal of the analysis is to describe the spatial behaviour of the developer's choice variables. For example, an important question is whether yard sizes in the model realistically increase with distance from the central business district (CBD).

The paper also presents a detailed comparative statistical analysis of the housing market equilibrum, providing one of the few existing examples of market equilibrum analysis in a Rosen type framework. The analyses establishes that many of the results derived by Wheaton (1982) for a simple urban economy where land and a composite commodity are the only consumption goods, also emerge in a more complicated and realistic model.

By making yard space a choice variable of the housing developer, the analysis in Brueckner's work also eliminates an unrealistic features of the standard urban model. In the standard model, housing services (which are best thought of as the services derived from floor space) are produced with inputs of capital N and land l according to a constant returns function H(N, l). Now for this production to be well defined, the fraction of the land input physically covered by the capital must be specified in advance. This follows because a fixed amount of capital which completely covers a given land area will generate more square feet of floor space than the same amount of capital arranged vertically in a taller structure which occupies only a fraction of the available land (some capital will be used up in stairways, stronger foundation, etc.). To ensure that a unique output of floor space is associated with each input bundle, buildings must occupy some constant fraction, say 75 percent or 100 percent, of the land area rented by the developer.

In the latter case, buildings are yardless, and while the model will accurately represent the downtown areas of most large cities, it will fail to capture an essential feature of sub-urban land use. Indeed, since the proportion of the land input covered

by structures appears to decrease with distance from the CBD in cities, any model in which this proportion is fixed will be at odds with reality. By allowing yard size to be a choice variable of the developer, the model of Brueckner yielded a potentially more accurate representation of an urban economy.

Anas (1984) tests the hypothesis that information about housing market activity and about specific dwellings becomes capitalized into single family dwelling prices through a disequilibrum adjustment process. A dynamic price adjustment model, which is an extension of the standard hedonic model widely used in the literature, is derived, specified and tested with both micro and aggregated data from the city of Chicago and for the period 1972 to 1976. The results show that from 32 to 75% of the variance in dwelling prices, unexplained by the standard hedonic attributes under assumptions of equilibrum, is explained by market activity signals such as mortgage interest rates and neighbourhood transaction rates of the preceeding period. Dwellings about which there is less information, making comparison pricing difficult, are shown to command a price premium.

The standard equilibrum hypothesis appears readily rejectable and better predictions are obtained from the disequilibrum specifications. Several directions for extending this line of research are also discussed.

Fujita (1982) studied a simple dynamic model of residential development with durable housing, where all households are identical and all developers have perfect foresight. It is shown that, unlike the case of static models, it is quite possible that

house size decreases and thus population density increases with distance from the city centre and that the house rent curve has positive gradient in certain area.

Ellickson (1981) used the hedonic theory of housing markets to generate a multinomial logit model of household behaviour in an urban housing market. Application of hedonic theory to housing markets is fairly familiar and a link to multi nomial logit has also been established. However, by emphasizing more heavily the bid price interpretation of hedonic theory, the paper develops a new connection to econometric estimation that essentially running the usual logit equations in reverse.

One advantage of this approach is that the link between the logit equations and hedonic theory involves bid price rather than utility functions, and this in turn permits the empirical results to be given an extremely clear interpretation. Furthermore in contrast to the standard logit model, the extreme value distribution required to justify the estimating techniques emerges endogeneously as part of the analysis.

Lerman (1983) provided an alternative to Ellickson's multinomial logit model of household bids for dwelling units by making use of observable information on the price paid by the winning bidder. The alternative specification makes it possible to estimate willingness to pay for housing attributes, which cannot be obtained from Ellickson's model. Some methodological issues arising from Ellickson's method of grouping households are also examined.

Gillingham and Hagemann (1983) analyzed the demand for housing services, integrating into a single analysis a systematic treatment of several important conceptual and empirical issues. Their objectives were to (i) evaluate the empirical importance of the simultaneity between the tenure choice and consumption level decisions (ii) analyse the relationship between household types and housing demand and (iii) present new estimates of the parameters of housing demand which are based on detailed micro-data. In the process, the authors using Lee-Trost model (1976) derived and estimated overall income and price on both the tenure choice and consumption level decisions. In the process of obtaining these estimates, they treated other issues in the specification of housing services demand equations. First, unlike most previous analyses, this paper treats owners and renters identifically, using a conceptually equivalent measure of the flow of housing services for both. Second, it incorporates into their demand equation the impact that federal tax regulations have on the cost of housing services for owner-occupants. Finally the authors examine the controversy which has arisen over the relative accuracy of housing demand analyses based on individual household and aggregate data. The results indicated that, at least for their cross-sectional data base, there is no evidence that housing demand parameters estimated on micro data are subject to significant biases.

Kaneko (1983) presented a model of a rental housing market in which houses are treated as indivisible commodities. A recursive equation that determines a competitive equilibrum is provided, and it is argued that this competitive equilibrum is representative of the set of all competitive equilibria. Using this representative

equilibrum, several propositions on comparative statics are considered that have to do with how the competitive rents change when certain parameters of the model change.

In his work, Kaneko apart from treating houses as indivisible also consider that each household wants to rent at most one house while other consumption commodities are treated as one composite commodity which he called money. To examine competitive equilibria in this market model, the paper provides a certain recursive equation that determines a competitive equilibrum.

Also, Eckart (1983), in an equilibrum model embracing land and housing markets showed that, given a perfect capital market, land price and housing rent are disconnected if specualtive (idle) land holdings take place: Land price level, due to future price expectations and the interest rate, is of no importance for the rental price of housing. The latter is determined by the depreciation rate, the interest rate and the construction costs alone. Taxing idle land holdings, however, is shown to lower land price and housing rent. The introduction of imperfect capital market conditions into the analysis destroys the disconnection of land price and housing rent and "high" land prices caused by "high" future price expectations could well increase the rental price of housing.

Eckart's work is considered singificant for, though it is common knowledge that specualtive activities take place in the land market, they have not been given adequate treatment in micro-economic modelling. In the models of Bentick (1972) and Skouras (1978) only necessary conditions for the equilibrium

land price are derived. Hence the relevance of land speculation for the land price and the housing rent, as well as the interdependencies between these two prices cannot be satisfactorily understood. Eckart's work provided a deeper understanding of the role that land speculation plays in the determination of both the land price and the rental price of housing.

In the framework of an equilibrum model, where every agent considers both building housing units and holding idle land, equilibrum levels of land price, housing rent and housing density are derived, which gives some insight into the mutual relationships between these variables.

Hamilton and Cooke (1982) presented a model of the housing market that takes account of both the durability and the non-malleability of the housing stock, and estimated the time path of the (ex-ante) rental price of housing between 1950 and 1975. It was found that the price declined about 3% per year over this period. Their central assumption is that housing is a putty-clay type of investment. Once amorphous resources are assembled into a dwelling unit, it is (economically) impossible to upgrade the unit. The quality of the housing stock is improved only via replacement. There is some casual evidence in support of the putty-clay assumption; addition and remodelling costs generally run substantially above new construction cost. The empirical question the authors examined was; How has the rental price of housing changed over the sample period?

The rental price was taken to be affected by a host of other variables, including construction and financing costs, the price of land, expected capital gains, and taxes.

Styruyk and Tuccilo (1983) reviewed the several objectives of governmental intervention in the housing sector and the economic rationale for them. The case for and efficiency of this intervention is then examined pursuant to two objectives: ensuring the availability of adequate and affordable housing to low income households and encouraging home ownership. The paper concludes with suggested modifications that appear to be reasonable on budgeting efficiency, and political grounds.

Quigley (1982) presented a methodology for exploiting the non-linear hedonic nature of housing prices to estimate the compensated demands of households for particular housing attributes. The methodology is employed to provide Hicksian benefit measures of a particular housing subsidy program typical of those undertaken recently in developing countries.

Goodman and Kawai (1982) examined housing demand by looking quite specifically at the income and price variables based on individual household data. Permanent and transitory incomes are computed through instrumental variables related to human and non-human wealth. A price is constructed by spatially varying hedonic techniques separation of measured income into permanent and transitory components substantially improves the predictive power of the housing demand estimation and leads to demand elasticities of +1 and -1 with respect to permanent income and price. The permanent income elasticity is roughly twice the measured income elasticity.

Anas (1978) develops a dynamic model of the urban residential market. Under specific assumptions about market behaviour on both the supply and the demand sides, it is shown that cities grow by

attaining a sequence of short run equilibra. A set of recursive equations is derived and through these the impact of growth on the structure of rents, densities and consumer welfare is analyzed.

The dynamic model explains the decay of the central locations in large old American cities. Housing obsolescence and abandonement arises under special conditions and is reflected in positively sloped rent gradients in central locations. The well known static result of declining densities with distance from the centre is shown to occur only under special conditions such as rising income levels. Directions for further analyzing urban growth, by expanding this dynamic approach are pointed out.

Stull (1978) investigates the asking rent behaviour of a landlord with a vacancy who faces a known, downward sloping rental probability function. The shape of this function is shown to be strongly dependent on the form of the underlying acceptance of rent distribution and on the rate at which prospective tenants visit the unit. A particular family of asking rent strategies is examined. It is shown that all of these strategies exhibit a declining sequence of asking rents, and that the landlord in choosing among them must balance his desire for rental income against his aversion to waiting.

Whitehead (1980) sets out a model which analyses whether and how household characteristics affect the demand for private rented accommodation. Using a linear expenditure system, demand utility functions are estimated from data collected in the private sector in central London in 1973 - 74. The result suggest that household characteristics do affect demand for private rented

accommodation but primarily through the minimum level of consumption of different housing.

In another work (Whitehead, 1983), examined the major determinants of the demand for finance for owner occupation and the relationship between the finance and housing markets. The study concentrates both on short term factors and the causes of instability in flow of funds prices and output, and in the longer term factors determining the demand and supply of owner occupied hhousing.

Also, Boehm (1984) uses a "disequlibrum" model of residential mobility to examine the effect of market conditions on the mobility decisions of renter households. The analysis shows that mortgage credit terms and other housing costs play a significant role in determining the household's optimal housing choices and, therefore, its intra-metropolitan mobility.

Borukhov et al (1978) presents findings on urban housing preferences in Israel as reflected in the market prices of apartments in the Tel Aviv metropolitan area. The differences in prices serve as indicators for the preferences for the various attributes of different dwelling units. The study is based on the prices of a sample of apartments offered for sale in the Tel Aviv metropolitan area. Using multiple regression analysis hedonic price indexes were obtained for a large number of characteristics of the apartment, the building, adjacent properties, the neighbourhood and the location in the metropolitan area. It was found that a premium is paid for characteristics which facilitate maintenance and for features which serve as indicators for the social composition of the neighbours and their attitudes.

Inspite of the significant contributions the above review had made to housing market studies, certain gaps still exist.

The first of these relates to the approach adopted in earlier studies. Here, housing value differentials are largely assumed to be determined by the location of the unit in relation to the Central Business District (CBD) or journey to work, thus making housing values a function of cost and distance to the CBD (Yeates, 1965; Knos, 1968; Brodsky, 1970). The problem with those studies is that they are biased, in that the CBD is accorded more importance than it really deserves while the effects of other related variables are neglected (Arimah, 1991).

Although recent studies have modified this approach, to include other relevant housing related variables, there exists the issue of housing submarkets. A sizeable literature exists which has neglected the issue of the identification of homogeneous submarkets/segments of the entire housing market (Kain and Quigley, 1970; Wieand, 1973; Davis, 1974; Apps, 1973; King and Meizskowsky, 1973; Richardson et al, 1974; Harrison and Rubenfeld, 1978; Butler, 1982). These studies use a common methodology, a measure of housing value is regressed on housing attributes drawn throughout the city.

To date, very little urban micro-economic analysis of housing markets in developing countries has been undertaken. Apart from the studies of Follain and Jimenez (1984, 1985); Lim et al (1984); Mayo and Mal pezzi (1984); Follain et al (1982); Jimenez (1982) and Quigley (1982) of certain Latin American and Asian countries,

Megbolugbe's (1983, 1986) study of Jos stands out as the first of such attempt in Nigeria. This state of affairs can be attributed to:

(a) the difficulty associated with obtaining property values in a developing country.

(b) the apparent belief that housing markets in developing countries are underdeveloped and inhabited by socio-cultural and political institutions which make the study of housing markets through micro-economic models unwarranted; and

(c) the fact that data from such markets are unreliable (Dalton, 1962; Megbolugbe, 1986).

Ahumibe (1987) examined the relative performance of the various categories of the rental residential real estate investment in Owerri and therefrom determined the work rewarding investment over the period 1981 to 1986. In the course of the study, he reviewed the critical environment that has stared the nation in the face over the period - an environment of high inflation, high unemployment rate decrease in salaries and wages and most of all a dwindling Gross Domestic Product (GDP). The real estate industry being part and parcel of the economy has also had its own share of the doldrum with declining property values, geometric increase in prices of building materials and costs of financne and consequently operating expenses of properties and landlords suffering high rent collection loss.

Based on the theoretically expected response of the real estate investment to the economic climate of the country, a set of expected hypotheses were developed viz:

(i) an expectation of general increase in operating expenses, stagnation in rental values, and decline of real estate market values.

(ii) increase in vacancy and rent collection loss rate - that duplexes and bungalows will be worse off than tenements and block of flats.

(iii) That the relative risk level of duplexes and bungalows will be higher than those of tenement properties and flats.

Analysis of data collected from the Owerri rental residential real estate market confirmed all the hypotheses except that it was found contrary to the hypothesis that the vacancy rates of tenement properties were higher than those of duplexes and bungalows. Explanation for this was found in the fact that the Owerri rental property market is far from being saturated and that despite the economic depression effective demand still existed for high class residences. Another reason for the result of the hypothesis test is found in the special features of tenement properties: It accommodates a large number of tenants in a building hence there is a high probability that very often there must exist times when one or more of the accommodation units will not be occupied. This is in contrast with block of flats or bungalows which have few number of accommodation units in a single building.

In the comperative analysis of the performance of the various properties, it was found that tenement properties contrary to the generally held view recorded the best performance over the period under review particularly in all issues of risk and rate of return. However, under the parameters that measured tenants' response to

to the properties in terms of vacancy rate, rent collection-loss rate and managerial intensity - tenement properties performed badly. In this regard, duplexes and bungalows proved to appeal to tenants most.

The result of the analysis showed that though an investment may be managerially intensive or demanding it could still be a very profitable venture in all its ramifications exhibiting how business and probably financial risks and high rates of return. This is the case of tenement properties. Hence it is erroneous to attempt to equate the level of management demand of an investment with the level of risk inherent in the investment. Both could (or may not) be inversely related.

The findings of Ahumibe's study make it imperative for the various interest groups in the real estate business - the investors, developers, the government and the professional estate managers to review their policies to conform to the prevailing circumstances. He recommended a thorough appraisal of the economic viability of an investment before committing capital to the investment. Government should take positive action towards the reduction of cost of construction by reducing bank interest rates, cost of building materials and the bureaucracy of its agencies associated with the construction industry. Lastly, he recommended that investment in tenement properties should be embraced by investors and developers because it is a fertile area and government should give incentives to the development of tenement properties and use it as a policy tool to achieve housing for the low income group. On the part of the Estate Surveyors and Valuers, there is the

need to take up the management of tenement properties and apply innovative management techniques in order to defeat the management challenges at state.

Osaghae, Igboko and Fadare (1993) examined the relationships between variablesof accessibility - travel time and transport cost - and rental values in residential properties drawing resources from a survey conducted along Sokponba Road in Benin City. To achieve this goal, the analysis centred on the travel mode and travel pattern of residential dwellers and the rental transactions in 3-bedroom residential flats in the district. To measure the degree of relationships between variables, linear and multiple regression analysis methods were applied. The findings showed that occupiers of residential properties take the elements of accessibility into consideration in making real estate choices. They are also influenced by this consideration in the assessment of the use-return of particular properties and thus the price they are likely to offer.

The policy implications of this study are enormous especially as they affect urban resource allocation, management and utilisation. Since the urban property manager must assist potential tenants and property investors in the analysis and search for urban space and sites, information on the consideration of transport costs and travel time would assist such consultants in advising on appropriate choice while taking full cognizance of the financial/economic implications of the action. Urban planners too require this information for the likely effect of the choice of a site for a particular land use activity. This means that

policy makers and physical planners must therefore combine the knowledge of the performance of these variables in designing a structure for urban resource allocation and development.

Ekpo (1976) assessed the housing market characteristics in Zaria. The study assessed the existing housing situations and the existing housing supply mechanism. He identified the problems of suppliers and consumers, the legal aspects of housing, characterized the future housing requirements and gave recommendation on how the housing needs could be met.

Nze (1975) analysed the housing market in the urban area of Enugu. The study defined and declineated the housing market area of Enugu, discussed the city's economic base as a factor affecting housing demand and household formation. Population and household characteristics as main elements of housing demand were discussed. He also examined the supply characteristics - the existing stock of houses, their quality and other sub-market classification, future trends and controls in supply.

Avue (1980) assessed the gravity of the housing problems in Makurdi town including the attempts made to solve the problems. The study showed whether or not the magnitude of the housing problems vary from ward to ward. The wards more seriously affected by the housing problems were identified together with the impact of the housing situation on the workers.

Ogunpola and Oladeji (1975) critically examined the housing situation in Metropolitan Lagos. The authors discussed the housing situation in Lagos with particular reference to stock, quality, occupancy rate, cost of rents in relation to income and communally

provided facilities and related these to internationally accepted standards of housing and drew conclusions therefrom.

A basic weakness of the above studies is that they focussed on the supply side alone and therefore presented an unbalanced analysis of housing market. Ogunpola and Oladeji, however, examined both the quantitative and qualitative dimension of the housing stock unlike other studies which normally focusses on the quantitative aspect alone.

Awoniyi (1980) studied the salient features of the existing housing conditions both quantitatively and qualitatively in Ilorin. Estimation of the present and future housing needs was attempted, basing it on the existing situation. The study revealed that one of the major causes of the present housing problem in Ilorin is lack of essential facilities in the dwelling units, such as water supply, electricity, environmental sanitation among others. The study further showed that most of the future needs in housing in Ilorin will arise from formation of new households and replacement of obsolescent structures. Again, this study has both the strength and weakness of Ogunpola and Oladeji's study.

Onokerhoraye (1977) analysed the spatial characteristics of contemporary residential districts in Benin and attempted to identify the major factors responsible for the prevailing spatial structure of residential districts in the town. The study concluded that social, cultural and institutional factors have been the main influence in the development of the present residential pattern which cannot be explained solely by the theories which have been advanced for Western Industrial cities. This study is very relevant to this study in that an attempt will be made to examine the factors

explaining the prevailing patterns of residential development in Ibadan.

Odediran (1978) focussed on the housing problems and prospects in Abeokuta, the Ogun State capital, prior to and after the creation of the state. The study examined the impact of population growth and housing condition on housing demand. The various issues militating against housing development in Abeokuta were identified and discussed. Again, this study is tilted towards the supply side of the analysis.

Seymour (1978) critically examined the existing methodological approaches for the study of housing needs. The limitations of past housing need studies were identified and desirable and necessary scope and foci of housing needs studies were presented. The author called for a shift in the study of housing needs and demand which will involve an investigation of subjective preferences, examination of the question of geographical distribution, costing of proposed units, analysis of public opinion on appropriate standards. He was of the opinion that research on housing demand, by providing information on economic activities and subjective housing preferences, might make a useful contribution to improve planning, particularly for the lowest income groups. He was also of the opinion that too much attention has been focussed on the building. In his study in Kaduna, he found evidence to show that the poverty of the environment is perceived by urban residents as a more serious problem than the dwelling unit itself. He therefore, advocates a shift in policy from providing new housing to improving the environmental quality of existing housing areas. This, in his view, will decrease the quantity of new housing required.

Seymour's identification of "subjective preferences" in his study is relevant to this study as part of our analysis will be an evaluation of the factors determining landlords' preference, in the selection of potential tenants for vacant accommodation particularly in the high density residential district where landlords performs the management functions relating to tenanted properties.

Abiodun (1976) examined the housing problems in some selected Nigerian cities. She acknowledged the great shortage of adequate housing facilities in Nigerian towns and opined that such inadequacy very often finds expression in a very high occupancy ratio. The housing need in Nigerian urban centres is made greater and the housing problems exarcebated by a combination of factors which she identified as stated below:

(i) the fact that the bulk of the traditional housing available in our urban centres is mainly in a dilapidated condition and unsuitable for habitation;

(ii) more houses are needed to relieve existing overcrowding in many of the Nigerian urban centres;

(iii) natural increase within the urban centres themselves demands additional dwelling units to house the increasing population and

(iv) rural-urban migration, which has assumed great proportions during the last few decades, has aggravated the housing needs of urban centres in Nigeria. Problem identified include excessive cost of building materials, high cost of land acquisition, high cost of labour and problem of maintenance.

Based on problems identified, she recommended:

(i) that the Federal Government should devote a specific percentage of its annual national budget toward housing development.

(ii) the establishment of iron and steel industry to assist in maintaining the prices of some of these products at reasonable levels.

(iii) the establishment of more technical training for the construction industry.

(iv) the introduction of prefabricated houses as a form of dwelling for the masses of the population.

Onibokun (1982) examined the nature of housing problems facing Nigeria, characterized the responses to the needs and identified and discussed the flaws, that is, congruence or lack of it between housing needs and responses to the needs. Identified flaws include government direct housing construction, the loan inadequacy, inadequate attention to other solutions, ineffective programme of action and machinery, narrow conception of housing need, dearth of data to determine housing needs, playing the game of number rather than a well reasoned and carefully planned strategy to meet the housing needs and playing the political chess game coupled with lack of co-operative spirit resulting in "much efforts, much confrontation, much wastage, intangible real achievements manifest in the "match-boxes" called houses of the people".

He recommended the jettisoning of the piecemeal approach to housing provision in Nigeria, the need to think and plan our communities as part of a region; the neighbourhood as part of the communities; and the individual home as part of the neighbourhood which essentially means that housing must be planned in totality of all aspects of our

national, social, economic and cultural conditions. Government, he argued, should be aware that given the economic situation in which the social infrastructures are being laid in the face of shrinking resources, both in terms of foreign exchange earnings, and dwindling reserves, that extreme cutbacks and prudence in expenditure is called for in every sector of the economy, including housing. He asserted that the provision of housing assistance to low income groups could be effective in the long run only if accompanied by social and economic programmes necessary to strike at the cause of the prevailing problem. Finally, he opined that efforts must be directed to sufficiently raise the income levels of Nigerians so that all but the most deprived families can compete in the private housing market.

Adeniyi (1976) examined the priority accorded to housing in national development plans. The author attempted to establish the significant role which investment in housing could play in the economic development of a country. As aptly put by the author, " "the exercise of investment in housing is seen as a stimulating, strengthening and integrating mechanism that increases employment opportunities, increases family incomes, improves community and urbanization facilities, raises levels of living and provides more savings for expanding the cycle of investment". In spite of the multiplier effects of investment in housing in economic development, the author illustrated how Nigeria has accorded low priority to programmes of housing development especially during the first and second plan periods.

Fadahunsi (1980) examined the same issue Adeniyi addressed above but in a more comprehensive way. While the paper by Adeniyi was written in 1972 and emphasized and appraised govern-

ment investment in housing development during the first and the second national development plans, the paper by Fadahunsi is more recent and treats in chronological sequence the efforts made and the steps taken by the governments to provide solutions to Nigeria's housing problems during the past fifty years - 1929/30 to 1979/80. The paper presents, in a very didatic way, the changing phases of housing situation, the urban conditions, and government intervention in housing and physical development within the last half a century. According to the author, progress was made but achievements fell short of expectations due to a number of factors and circumstances among which are lack of adequate funding, non-exploitation of investment potential generated by creating housing estates; non-utilization of all sources of available funds; shortage of building materials, the designing of houses of the high cost type; lack of attention to needs of the rural areas; lack of encouragement to private sector participation in housing; lack of stability in organizations set up for implementing programmes; the failure of contractors to perform according to their terms of contract; and inadequate manpower resources to cope with the needs of housing development. The paper concluded by offering suggestions on what could be done to ensure the provision of good and adequate housing for the Nigerian populace.

Okpala (1985) and Vagale (1971) both focussed on rent control and the two papers are complementary. Vagale examined the soaring rents for residential accommodation in Nigerian cities, especially the state capitals. In other countries, rent regulations had been introduced, with both negative and positive consequences. If rent control had to be introduced in Nigeria, the author contended, it

should be within a well formulated policy framework. The author discusses the content of such a framework.

Okpala also focussed on the Nigerian rent controlled edicts, especially in the light of the structure of the Nigerian housing construction industry. In the light of the apparent failure of the rent control measures in Nigeria, the author argued for a more discrete and selective use of the rent control instrument and for stronger policy emphasis on the incentive leveraging of more housing supplies, which would reduce rents more naturally and help to avoid penalising those the rent edict intends to help.

Adeniyi (1974) outlined the Nigerian economy and examined the role of housing in economic and social development as a component of the construction industry. The author identified the problems facing the construction industry as well as the possible ways and means through which the construction industry can respond to the challenges of providing housing in Nigeria.

Okpala (1977) critically examined the problems and prospects of promoting the use of local building materials in Nigeria housing construction. The author examined the justification for encouraging the use of local building materials, reviewed the steps hitherto taken by the government to encourage the use of these materials, analysed the problems of acceptability and unacceptability of the materials, and discussed the technological, legal and economic implication of the issue of the use of local materials in the building construction industry. The value of imports for certain years of some selected material inputs into the building and construction industry in Nigeria were presented by the author and these added to the educative impact of the paper.

Adesina and Utgikar (1980) in a similar manner examined how the costs of housing construction can be reduced through the use of available local building materials and changes in the building construction methods. The experience from other countries, past experiments in Nigeria and the proposals for modification presented by the authors show that there is a very high potential for stone, clay products, stabilised earth, lime, timber, sulphur, bamboo, plastic and other local materials in the exercise of finding cheap, durable, attractive and acceptable materials for building construction in Nigeria.

Ola (1977) suggested the use of stabilized soil to provide cheap but durable housing. This idea has not yet caught on in Nigeria although it is common in Latin American countries and is becoming common in the South Central United States of America. In Nigeria, the only known example has been the Mkar Christian Hospital which was built primarily of stabilized soil.

Oguara (1980) made a similar suggestion on recommending specifically cement stabilized laterite blocks instead of cement blocks.

Adesina (1980) advocated a broad range of materials that are easily available on site including clay products, stones, bricks, lime, timber, bamboo and even grass as thatch for roofs. The essence of these suggestions are summarized by Okpala (1980) who pointed out that the cost of importation both in cash terms as well as in terms of lost opportunities in other sectors of the economy is too high. This cost makes it imperative to substitute local building materials where possible.

Onibokun (1977) carried the theme further by analysing and discussing an experiment which has successfully shown that a judicious use of local building materials in preference to imported ones and a refinement and adoption of traditional methods of housing construction, could bring housing within the reach of the low income families. The paper showed that there are still quite a number of steps to be taken before the really low income groups will be able to afford the decent low cost housing. In an earlier work (Onibokun, 1972), he had examined the problem of urban decay in Nigerian cities and the plight of the low income people who live in the substandard housing.

According to him, much has been written and said about the subject where action has been taken concerning the rehabilitation and redevelopment of Nigerian cities, "the approach has been adhoc, and policies and actions, in the main, have not been orchestrated towards the desired goal". The author focussed on a case study and, after a careful consideration of the circumstances under which the substandard houses emerge and endure, suggested guidelines for action on the housing and environmental problems plaguing Nigeria's urban centres.

Jawando and Van der Zee (1975) pursued a similar theme. While Onibokun used Ibadan as a case study of urban decay problems in Nigeria, Jawando and Van der Zee focused on Lagos and the authors successfully analysed the problem of unplanned developments in metropolitan Lagos. The location of these unplanned developments are identified; the social, economic, legal, health implications of this phenomenon were discussed; and practical suggestions for

improving and correcting the conditions of the areas offered. These include the delay of slum clearance programmes. (This is based on the belief that slum clearance adds to the housing shortage as planned developments cannot be established fast enough to cater for both the population growth and the inhabitants ejected from condemned areas.) Other suggestions by the authors include upgrading of existing unplanned areas, sites and services schemes and development of new estates.

The authors also emphasized the importance of upgrading of unplanned development by introducing basic infrastructure and community facilities as a short range and economical measure of improving the housing situation. The upgrading recommended is envisaged as an alternative to total redevelopment which has proved difficult to execute owing to economical and political problems.

Very little has been done on construction techniques per se. Adesina (1980) advocated the use of traditional methods as a building block for developing a home grown technology for the future. This view is rather appealing except that we are not toldhow it is to be implemented. Three other authors suggest what is essentially the same thing, namely industrialisation of the building industry. Erhabor (1980) advocates a systems approach based on GIWARITE (TM) products which include a full range of roofing, walling and finishing products. Orouet (1980) advocates mass production techniques, and Sinna (1980) also advocates mass production techniques especially prefabrication of sections of the building in the factory to facilitate rapid assembly. While

these suggestions are interesting, they often do not produce cheaper or better housing. From observing prefabs construction in Ahmadu Bello University, there is no question that it is fast. However, it requires heavy capital outlay in equipment and machinery to manufacture the components as well as assemble them on the site.

Lemer (1981) made an analysis of future demand for housing in Nigeria's urban centres at state levels, considering natural population increase and immigration, household sizes and consumption patterns changing with rising income, and availability of finance. Supply was analyzed in terms of the size and strength of the housing sector in the national economy, institutional structure of the industry, and availability of factors of production. A strategy was formulated to increase supply of appropriate housing to meet future demand, based upon maximum participation of the private sector to produce affordable housing.

Few works have also been done in the disciplinary area of economics of housing policy. This area did not receive much attention in Nigeria until 1972 when housing became a national issue. Since then, much has been written about its policy both in the popular media as well as from both researchers in the academic community. For example, Adeniyi (1972) stressed the need for policy, especially in the context of national development. His ideas were put forward shortly after the cessation of hostilities in the Nigerian civil war. Reconstruction was at that time the main thrust of government action. Adeniyi suggested the establishment of a National Housing Bank to finance housing development. This suggestion was adopted in 1976 with the formulation of the Federal Mortgage Bank.

Abiodun (1980) stressed some of the problems of formulating and implementing a policy. Her paper, however, dealt more on fiscal allocation, rather than the quantity and quality of housing delivered.

Of the few available work on housing policy on Nigeria, Araedon's (1978), a path breaking empirical study provided the most incisive analysis into the problems. According to him, policies such as existed prior to 1975 were elitist and resulted in programme that benefitted only a few. Furthermore, such programmes as existed were a direct response to the wills and attitudes of a few influential government personalities. The views of the public with respect to their views and aspirations, were not considered. Wahab's earlier work on values and planning (Wahab, 1976) stated the general problem as the imposition of planners' values on the users. This, in his opinion, leads to poor results in the attempt to meet housing objectives. One of the objectives not met, is the inability of housing stock to equal or even approximate the need for housing.

Okpala (1978) suggested that one of the reasons for this shortfall in housing stock is the fact that standards set are too high. He, therefore, advocates the establishment of an appropriate level of standards that would meet the needs for environmental quality and economy and at the same time allowing rapid housing provision.

Public media contribution to housing policy has been, in the main, a reaction to various government actions such as the appointment of the Omolayole Rent Panel in the mid-1970s, award of contracts and location of federal housing projects, and comments on

design and allocation of housing projects. Unfortunately, apart from indicating the problem, there has not been a careful analysis of the ramifications of the problems. Such recommendations as are made are consequently shallow and often seem to compound rather than solve the problem.

A path breaking nationwide empirical study on the Nigerian Housing industry is that of Onibokun (1984). He found that prospective house owners may face many problems such as finance, labour, building materials, land, and lately, the procurement of the certificate of occupancy to legitimise the possession of the land. About 77% of the respondents throughout the country considered finance a major problem. Only in three states viz: Oyo (8.8%), Kano (13.6%) and Benue (49%) do less than half of the respondents consider it as a critical problem. The second most important problem is land which 57 per cent consider a very inhibiting factor.

On a nationwide scale, three studies got close to being viewed as comprehensive studies of urban housing in Nigeria. The first was a study commissioned by the Federal government in 1974 on the problems facing 12 major urban centres in Nigeria (see Doxiadis Associates, 1973). The study treated housing tangentially and did not collect any primary data on housing in the cities covered. Besides, the study was a generalised survey, the findings and conclusions of which could not form a good basis for formulating housing policies and programmes for Nigerian cities.

In 1973, the then Federal Military Government requested the Institute Roman de Consulting (Romconsult) of Romania to advise it on how to achieve the construction of 54,000 housing units earlier promised by the Head of State for the low income people in Nigeria.

Romconsult visited the then 12 states, discussed with government officials and prepared a report which focussed on the opportunities for implementing the low income housing scheme in the then 12 states. The report did not cover housing needs, demands and problems in the country. Moreover, no sooner was the report prepared than new states were created and a new low income housing target set. The report, therefore, does not help much in the understanding of the issues involved in urban housing in Nigeria.

Another study on housing was prepared in 1975 by the same Romania Institute of Consulting. It was referred to as "a ten year Federal Housing Development Programme in the 1976 - 85 period". The study focussed on housing problems in Nigeria, using secondary data and the projections based on the controversial 1963 census figures to quantity housing needs (See Romconsult, 1976). The study became out of date soon after it was completed as many of the assumptions on which the study findings and recommendations were based became untenable and unreliable, especially as a result of the creation of new states in 1976. It was the realisation of the inadequacy of the study as the basis for policy making during the third plan period that led the Ministry of National Planning to Commission another study in 1978 on Nigeria's urban housing problem.

In 1978, the Federal Ministry of National Planning commissioned a firm, PRC (Nig) Ltd. to conduct a comprehensive study of urban housing in Nigeria with a view to coming up with strategies for meeting housing needs in Nigeria's urban centres (see PRC, 1980).

This study like the last one, depended too heavily on secondary data; it did not undertake a field study of urban housing conditions in any part of Nigeria. Such a field work would have cushioned the study a little against the adverse effects of the controversial census figures and the secondary data used. As a result, the study does not provide quality information which could form a sound basis for urban housing policy in Nigeria.

The dearth of primary and reliable data on urban housing contributed immensely to the inability of the country to formulate an appropriate housing policy to meet the different facets of the urban housing problem. Successive creation of states led to changes in the geographical and economic importance of different towns and cities in Nigeria which has, inevitably, resulted in the need and demand for housing in Nigerian urban area.

From the above review, it is indisputable that housing problem has attracted a lot of attention in Nigeria but only very few of the studies deal with the rental subsector of the urban housing market as being done here.

From the available literature on Nigerian urban housing markets, a number of tentative conclusions can be made:

(i) While housing construction is a major sector of the economy, the nature and performance of rental housing have not been adequately studied.

(ii) there is consensus that the local material content of building industry should be considerably increased.

(iii) there is also a strong view that costs can be radically reduced by use of alternative materials.

(iv) industrialization of housing industry is advocated by some, however there is no independent study to assess the benefits of industrialization.

(v) space provision is often inadequate in view of the needs of the families occupying them. This applies mostly to the lower income families.

(vi) at the policy statement level, each subsequent plan represents a significant move in the direction of meeting the needs of the people. The plan documents however do not show the range of alternatives available to the government. It is therefore not possible at policy level to say whether or not the most effective policies were being adopted. Policy, no matter how laudable cannot achieve the desired results unless there is a commitment as well as instruments to achieve its goals. Policy proposals have not resulted in the achievement of goals and objectives (Gyuse, 1984).

The review also shows clearly that the vast literature on the urban housing market could be classified into the following groups.

(i) Studies on housing market generally

(ii) Studies on housing demand (econometric studies)

(iii) Studies that deal with policy issues.

Studies on housing generally in Nigeria (Wahab 1978, Onibokun, 1976; 1982, Seymour 1978; Abiodun, 1980; Falegan, 1980) is dominated by a supply side orientation of the neglect of the demand side. There is, however, a great need for studies on both the demand and supply side (as proposed here) because to achieve equity in the

housing market, there is need to balance the demand and supply sides. It is in this respect that this study will examine both the landlord and tenant behaviour.

Studies on policy issues (Adeniyi, 1972; Abiodun, 1980; Araedon, 1978; Okpala, 1978; Tuccillo et al, 1982) have no doubt made significant contribution to housing studies. However, these studies have not clearly identified rental housing policy options for Nigeria as being proposed in this study.

Although, some of the empirical studies in Nigeria have made some contribution to the urban housing market studies, certain gaps still exist. The studies have not been comprehensive enough to cover important aspects of the rental housing market such as:

(i) trends in rental values by category of rental pro properties;

(ii) the factors that are responsible for the present level of skyrocketting rents in Nigeria and measures to abate the trend.

(iii) the problems of the three key participants in the rental housing industry viz: the rental households, the rental property managers and the government.

Finally, numerous studies on housing demand (econometric studies) have left out vital areas viz: Landlords and tenants' preferences and the socio-economic characteristics of tenants (consumers). Also completely neglected are issues concerning rental housing managements. This study is designed to fill this gap.

In the section which follows we will focus on operational definitions of relevant issues as a necessary preliminary for

a better understanding of materials in later chapters of the study.

2.3 OPERATIONAL DEFINITIONS AND ISSUES IN THE STUDY

2.3.1 The Concept and Components of Housing

The term "housing" refers to the combination of tangible and non-tangible benefits that a person derives from the occupation of a residential property. These benefits, in the most elementary form (component) consists of sheltered space that protects the occupants from the elements-rain, sun, wind and exposure to undesirable extremes of temperature.

At another level, housing consists of the structure providing shelter. This can be considered in terms of its permanence, rigidity, etc. If one thinks of utility that is derived from secured occupation of sheltered space, one can then consider the degree of the structural adequacy of the sheltered space occupied.

Another component of housing refers to the services and facilities provided with the physical shell for the purpose of increasing the utility, and value enjoyed by the occupant. Under consideration are electricity, gas and water supply, sanitary facilities, the finish of the floors and walls, types of windows, as well as heating and cooling equipment.

The fourth component refers to the types of space provided for other activities besides the sleeping quarters, and the functional arrangement of these areas. Specifically, in addition to sleeping areas, a house may have a purpose-built living area, dinning, kitchen, toilets, garage, etc. Consideration of this

component is, however, not restricted to the mere provision of these areas; it extends to the functionality of the size and the relationship of these areas to one another, given the pattern of activity of the household for which the house is provided.

A fifth component refers to the non-structural attributes of housing but to the character of the site on which the structure is located. The site can be considered in terms of size, shape, orientation, and any development work on it; for example, has it been landscaped? Are certain sections paved, filled, levelled; wooded plants with lawn grass, flowers?

A sixth component of housing is the linkage attributes of the structure and site with areas of interest, and desired facilities. This component refers to the distance, and the ease and cost of communication with other areas and facilities. It involves consideration of the presence or otherwise of telephones; access roads and their condition.

A final component refers to dynamic, mental, attitudinal aspects; the neighbourhood in which the building is located and the desirability of attractiveness of the neighbourhood to the occupant. Studies have shown that people feel safe, secured, satisfied, proud etc. if their house is located in areas with certain characteristics. For example, some prefer to live with people from the same ethnic group, for some, they wish to live with people in a higher socio-economic class to themselves. Ironically, those in the higher socio-economic classes strive to put as much spatial distance as possible between themselves and those in a lower group.

A consideration of the various components of housing shows that housing, like property rights, is actually a bundle of attributes. The size and composition of the bundle of attributes found in a housing unit depends on preferences and affordability. The examination of the various components also lends weight to the assertion that housing is a multifaceted problem. The sketch below shows the various components or dimensions of housing especially as relating to the level of technology in our society.

Housing Bundle

Basic Attributes of Housing

Shelter	Location	Environmental Amenity	Status	Investment
	Accessibility to work, Market, Recreation, etc.	Local services School, etc.	Individuality Self expression i.e. painting decoration, etc.	

In view of the very complicated nature of housing, Doling (1973) documented that any statistical study of housing is made difficult because it is a complex or multi-dimensional commodity.

Housing stock is very diverse. At its simplest, every one of the millions of dwellings in Nigeria is unique. Houses, even when they look exactly the same are infinitely varied in character and quality. Their occupiers buy not only the bricks or the cement block or the mud and mortar but they buy location, security of tenure, a fashionable address, proximity to work and schools, proximity to relatives etc. Nonetheless, another important dimension to the concept or definition of housing is that housing is also a process; it is a construction process.

From the foregoing discussion of housing, one cannot but agree with the United Nations' definition of "housing" as "the residential environment, neighbourhood, micro-district or the physical structure including all necessary services, facilities, equipment and devices needed for the physical health and social wellbeing of the family and individual". The discussion also lends weight to the assertion that the concept of housing includes environmental factors - the general land use, recreation areas, shopping facilities, infrastructural services, nuisance of pollution and noise - all of which has resulted in the three aspects of housing - economic, social and environmental.

2.3.2 The Concept of Housing Need

Housing need is the extent to which the supply of adequate housing falls short of the demand of households in terms of their psychological and physiological needs. To evolve a good housing policy and programme, it is necessary to establish the need. If the data to establish such needs are not available, then serious efforts should be made to establish such a data bank.

In nutshell, the scale of housing needs could be assessed on the following basis:

(i) the urgent need to house the homeless

(ii) the need to overcome the problem of housing environment in existing residential areas.

(iii) the need to replace existing dilapidated housing units.

(iv) the need to make provision for the increase in the urban population; and

(v) the need to provide housing for the population of immigrants into cities due to rural-urban drift.

Housing need differs from housing demand in that the latter involves need backed up by the ability of the prospective renter or owner-occupier to pay the price in form of rents or sale price for rental and owner-occupation purposes respectively.

2.3.3 The Social and Economic Significance of Housing

In the fulfilment of social needs, housing plays both a direct and indirect role and both roles are decisive. In its direct role, housing serves as the area where the individual becomes capable of experiencing community and privacy, social well-being and shelter and protection against hostile physical forces and disturbances. In its indirect role, housing serves as the area where an abundance of social relationship and services are accessible. Economically, it is not an overstatement that housing constitutes an important provision in a nation providing not only shelter but also security, comfort and dignity.

It is a social necessity because good housing improves healthy living which leads to a greater productivity of labour. It also stimulates investment in other sectors of the economy. For example, the provision of building materials, equipment, creation of employment opportunities and training of unskilled labour all depend on housing.

On the other hand, housing is an economic necessity and a social overhead. Its social implications are evident in the interwoven relationship existing in its physical aspects with

regards to healthy living. The economic aspects are related to the fact that no inhabitant in any community can live beyond his income.

2.3.4 The Physical Characteristics of Housing and the Economic Consequences

Housing, like other forms of real estate, is characterised by the following attributes:

(i) Fixity of location

(ii) Heterogeneity of housing types

(iii) Relatively large economic size

(iv) Durability and longevity

(v) Relatively long production time.

The fixity of location (immobility of housing) makes it open to certain forces:

(a) It is subject to institutional controls more than other forms of investments e.g. rent control, property tax, building code, land use restrictions, with less opportunity to avoid such controls.

(b) Each housing unit at a given location is unique that no other unit like it exists, even if another were accross the road on the next plot and of identical design.

(c) The supply of housing services at a location, at a given time is relatively fixed. Therefore, there may be an excess supply of housing units (and low rents or prices) on one street, while supply of the same type of housing may be grossly inadequate on the next.

Heterogeneity of Housing Types

There is a relatively great diversity of building types.

Consequently, housing units differ by location, floor on which it is found, number of rooms, types of finish, housing fixtures, etc. The significance (economic consequence) of this is that housing is a remarkably differentiated product, compared with corn for example. This results in a greater range in the utility evaluations of housing by renters and buyers.

Relatively Large Economic Size

The cost of housing unit is large compared to other items purchased. Consequently, the decision to purchase or build a house is an important one. For most persons, it represents the largest single expenditure of money that they will make in a lifetime. The size of the capital required to build or purchase housing relative to income or saving often make the use of credit necessary. Consequently, the relative availability of housing credit, the interest rate and the lending conditions are important considerations influencing housing ownership.

The large capital sum required to purchase a unit of housing also affects the liquidity of housing investments. Consider a ₦100,000 investment in stocks. Each stock is valued at ₦1.00. On the other hand, a similar ₦100,000 invested in a bungalow represent an indivisible unit of purchase. This influences the case with which a buyer can be found. In this regard, it should be noted that the relative liquidity of housing units decrease as the size increases. For certain properties, there may be one single buyer or no buyer capable of making effective demand for the property.

Physical Durability and Long Economic Life

Taken together with the relatively large capital required for housing investments, the durability and economic longevity of housing means that an investor in housing is concerned with a stream of future benefits given adequate management. This is an important characteristic: Since expected benefits are receivable in the future, an investor, implicitly or explicitly, makes projections based on his expectations of the future. This relates to the amount and nature of the periodic net benefits, the regularity with which it will be received, and the duration of the period for which it will be received.

In case the investor intends to hold the property, for say ten years, he needs to make a prediction about probable proceeds from sale of property net of cost of sales transaction.

A combination of the immobility of housing, its large economic size, its durability and long economic life means that at any time, the existing stock of housing is dominated by older structures. Even, if an investor in housing realises/determines that rents are lower than expectations, or that no one is willing to purchase the property, the investor remains stuck with the property for a long time to come. New addition to the existing housing stock in a market usually cost more than older buildings built in the past. Consequently, as prices/rent rise in order to make it worthwhile for new development to take place, the rents or prices of existing well maintained buildings also rise making them more profitable. For this reason, under conditions of prosperity in particular, housing is considered to be a good investment and a good hedge against inflation.

Relatively Long Production Time

The time required to identify an effective demand for housing and the time required to respond to the demand by producing a new building is usually relatively long compared with other economic goods. This is on account of the diversity of activities that need to be performed and also because the construction industry has not enjoyed the technological and managerial improvements found in the manufacturing industry. Consequently, the supply of housing units is often a lagged response to effective demand. Secondly, supply of housing is relatively inelastic in the short-run. In the presence of increased demand, the possible market responses are increased rents, followed by conversions and alterations of other structures.

Finally, the housing market is more prone to extreme of under supply and over supply. Because supply is a lagged response to demand, a large number of housing units than necessary may be under construction while the condition of shortage may still be encouraging even more developments. This feature makes it important in housing market analysis to consider existing buildings in addition to those under construction, those being planned plus possible ones given suitable sites.

2.3.5 The Concept of Housing Market

A housing market can be defined within the framework of the demand for and supply of the economist. This definition is viewed from the fact that the housing market is a composite of negotiations

between buyers and sellers (including lessee and lessor) in free communication for the acquisition and disposition of individual dwelling units which are in some degree of competition with each other. This opinion is in line with Cronin (1983) who claimed that "the housing market has much in common with the idealized competitive market portrayed in micro-economic theory." For example, the market is not concentrated and a large number of buyers and sellers participate in any metropolitan market.

In reality, urban housing markets do not always provide a representative picture of what theoretically constitute a competitive sound market. The distinctive characteristics of housing market makes the application of conventional market theory difficult and further contribute to cloudy understanding of its functioning. These unique characteristics have been defined according to the structural features and operational consequencies (Olson, 1969; Monica, 1976; Jon Pynous et al, 1980). The structural characteristics of the housing market include localization, durability, heterogeneity while the operational consequencies are pre-existing stock, information market segmentation, transitional friction, neighbourhood externalities and the dynamics of the housing.

These basic characteristics of the housing market will find expression and explanations within the context of the housing market and submarkets which will be discussed in the following paragraphs.

According to Ernest and Robert (1954), "a housing market is defined by the area over which units in the standing stock are assumed to be substituted for one another". This view was shared by Kain (1980) who claimed that "a housing market is the principal area within which all the dwelling units are linked together in a chain of substitution".

If every dwelling unit within a local housing market can be considered a substitute for every other unit, then all dwelling units may be said to form a single market characterised by interaction of occupancy, prices, rent, quality structure and even the environment of the housing market. This shows that the housing market is a physical market delineated in space by the extent to which housing quality, tenure, design price, rent and the general neighbourhood conditions are similar.

This definition could be maintained with difficulty even for the most general situation, like when considering the national or regional housing. Even in the local context, it is certain that dwelling units are heterogeneous in terms of bundle of services obtained and therefore one dwelling may not be an absolute substitute of the other. Two fundamental issues are highlighted in the foregoing definitions: the first is that in reality how can a physical housing market area be delimited in space while the second issue surrounds the assumption of a single housing market.

As regards the issue of reality in the delineation of the housing market, it was largely orchestrated that housing market area is not an arbitrary delineation. It is based on certain attributes exhibited by the dwelling units in any particular

spatial locality. Such attributes of delineation may be based on individual scale of preference as to the type, quality, location, price, rent of dwelling units desired. There is no absolute housing market, the market area delimited must follow the specific purpose of housing market analysis. Market delineation is a concept of the function of study and not merely of space representation. It is, however, difficult to draw the boundary lines of housing market with any degree of precision because of the difficulty in determining which housing units are in competition with one another (Ralph, Winnick and Blank, 1976).

In the developed economies like in the United States and Britain where the form of social organization in the housing sector can be tagged directly to a particular political philosophy, such delimitation of housing market can be practicalised. For example, housing market area has been delimited in such a way that it coincides with administrative units or what is referred to as counties or census tracts. Such delineation has been much of help in identifying and analysing the housing problems.

The second issue of a single housing market is a little bit complex if we consider every housing unit as unique in itself and yet is similar to another to a certain degree. Each unit is unique because no two dwelling units can occupy the same location and situation. Also the heterogeneous nature of housing market makes it unique in all respect.

Housing units within the same location may to some extent be considered similar in terms of structure and tenure. Equally too,

changes in the price or rent could bring down a particular house type to the price range of another lower housing type and so make them similar. Therefore, the housing market is not a single market, it can be differentiated by the extent to which the dwellings are linked by such factors as location, tenure, quality, rent, etc. The housing market in an area consists of groups of markets which are related to one another in varying degree. It is "an aggregate of a number of separate regional markets which are further diversified into a collection of sub-markets" (Ratcliffe, 1978).

Grigsby (1967) describes the main housing market as the "total market" while the group housing markets constitute the "submarkets". Also Stranszheim (1975) holds that an urban housing market should be viewed as a set of spatial compartmentalised sub-markets. Basically, two dwelling units are in the same sub-market when the issue of substitutability. From these definitions, three broad levels of markets can be identified in Nigeria viz: the National Housing Market, the State or Regional Housing Market and the Local Housing Market each having numerous submarkets.

2.3.6 Demand and Supply Factors in The Housing Market

It is convenient to classify supply factors under two headings:

(i) Factors affecting the willingness to supply housing units.

(ii) Factors affecting the ability to supply.

For the willingness to exist, there must be an excess of expected benefits over expected supply costs. For the developer who intends to build an sell, he must have the expectation that the expected benefits on sale, less all cots of sales will be adequately greater than the cost of development. The size of the excess of net benefits over cost must provide a profit acceptable to the developer.

For the developer who intends to build and let or one who buys and lets, there must be the expectation that periodic income from the property will cover the period cost of ownership and yield an acceptable return for the same period.

It is now clear that factors affecting the willingness to supply housing are:

(a) The expected level of rents, and selling prices.

(b) The expected cost of development (land building materials, labour fees, professional fees, interest rate, contingency allowance, etc.).

(c) The expected costs of ownership.

(d) The returns available on comparable alternative investments in the economy.

Given the willingness to supply housing units, the ability to supply is crucial. Under consideration are the following:

(a) The ability to personally manage the development process and the completed property.

(b) The ability to obtain skilled persons to do the same at an affordable cost.

(c) Possession of the capital resources for development in forms of adequacy of equity funds and access to loanable funds.

(d) Presence of other facilitating institutional arrangements.

(e) Presence of bottlenecks in the development process.

The entrepreneurial and the managerial ability required in the development of certain kinds of housing units could be a constraint. This becomes crucial when the skilled personnel is also unavailable at an affordable cost. In the absence of the skill,

the risk perceived to be associated with the kind of housing development is exaggerated. Also, a prudent developer may choose to avoid the kind of property.

Capital is a crucial factor influencing the ability to supply housing. Given the size of the required capital, a developer may either possess the whole of the required capital in the form of equity funds or he may have access to loanable funds to supplement the equity funds available. With the present situation in the country and the impact of the economic situation on the construction industry (with respect to cost of building materials and labour), it is becoming increasingly difficult to finance housing development with equity funds alone. Thus, borrowed capital is very important to supplement equity capital.

2.3.7 Factors Affecting Demand for Housing

The demand for housing is strongly influenced by many factors such as population, effective income, tastes, demographic factors which depends on the size, age and sex composition of the population and hence birth and death rates and the number of marriages, divorces (Stewart, 19). Housing is demanded for both consumption and investment purposes both of which are affected by one or more of these factors.

The most important influence upon housing demand is population. To put it simply, housing is for people, and their presence or absence affects housing demand. Sheer number of people, however, are not the only influence of population on housing

demand. Demographic factors like household formation, age, sex, occupation, income levels, family size affect the demand for housing greatly. These demographic factors are important because people of different demographic characteristics have differing housing demand (McKenzie and Betts, 1976).

In the words of Wendt (1977):

> "Demographic factors help increase demand for rental housing. One important demographic trend that creates demand for rental housing is an increase in the number of marriages. Another important factor is a rise in the number of young adult who tend to rent rather than buy.
>
> Again the number of "primary" individuals also contributes to the demand for rental housing. There are people who establish dwelling units that contain no other family members. An increase in the membership of this group develops largely from an increase in the number of older people and widows and widowers. The number of primary individual households also grows as divorce and separation rates increase and as more young unmarried people establish their own dwelling units. The main demographic factor against demand for rental housing is larger family size. Having more children seems to delay the stage in the life cycle at which housing space requirements"

Age affects housing demand. For example, children live with their parents. By the time they are 18 or so, some would have moved out of the family house while in late thirties or early fourties, some would have moved into a housing of their own.

Sex also determines the type of housing demanded. Men, generally, like to stay alone in a separate apartment big enough

to accommodate them but women (who are not married yet) prefer a small house that they can live in until they marry or even stay with their parents until marriage. Also, larger family size demand for bigger, comfortable accommodation than a single person who have not formed a family.

For income, the type of houses that individual demand depend on his income and the price at which the house can be rented or purchased. People who lack money cannot afford adequate housing however great their housing needs (McKenzie and Betts, 1976). When people have a housing need and if their income is sufficient to pay the cost of housing, then they can create an effective demand for housing. For some people too, many bills to pay or ~~mouths~~ mouths to feed restrict the money available for housing. Hence the amount of money spent on housing also depends on the amount of money spent on food, clothing, utilities and other essentials. For a low income earner, the amount left for housing after satisfying all other necessities like food, clothing, etc. is so small. This is because there has been an increase in prices of commodities.

Income levels, like population affect not only total housing demand, but also the composition of that demand. Higher incomes often cause people to have rental units and buy homes or build if the income is high enough to finance the construction. People of lower income sometimes find they must share housing accommodations with their parents or their relatives. This situation is referred to as "doubling". But when their income increases they frequently move out and seek a dwelling of their own - a process called "undoubling" (McKenzie and Betts, 1976).

Other economic factors favouring rental housing include an increase in the number of working wives, who want neither long commutes to work nor home ownership to burden them. Since job opportunities for women are more common in cities than in the suburbs, families with working wives are likely to prefer to rent an urban apartment.

The increase in professional, managerial, and white-collar workers in the labour force also favours rental housing. Professional men appear more likely to rent than others in their income class. Contributing factors include the high mobility rate and the urban location of the professional's activities (Wendt, 1977).

The availability of credit is another factor that influences the demand for housing. Buying or building house is the largest investment most households make. Few people have the resources to build a house especially the low income people. Financial institutions usually give loans to people for such an investment after fulfilling certain conditions prescribed. The availability and relative cost of mortgage credit has an ~~important~~ important influence on people's ability to buy and therefore on local housing demand.

Improved financing or lower interests rates have the effect of increasing the housing purchasing power of a given income level. The low income earner at the present interest rate of mortgage bank finds it difficult to get loan for house building or purchase. This increases the demand for rental tenement houses.

Therefore, future changes in housing credit will affect housing demand. As rightly observed by McKenzie and Betts (1976),

"forecasts of a decade of world-wide capital shortages are forecasts of a troubled period for housing demand".

Changes in taste is another factor influencing housing demand. Our most basic need for housing involves little more than minimum shelter from animals and the elements. As we seek a better standard, we are responding to our own and our group's expectation of what life should be. What we choose in style, location and other criteria are influenced by what we observe and by what we have previously experienced. When we change tastes, our demand level also changes.

Taste determines the type of house an individual lives or buys. Taste is always related to the purchasing power of individuals. The income and the amount spent on housing determine the type of houses individual live in. Individual tastes or preferences could call for a second house in the mountains or at the seashore but what actually affect the actualisation of the preference is the money at disposal. Some people might decide to spend a minimum on housing, paying for bare shelter and warmth in order to freem money to pursue some other interests.

Accessibility, location and neighbourhood are major factors that influence demand for housing that need examination. Accessibility evaluates the net economic costs of movement of persons and goods between one place and another. In terms of location, ownership of properties have tended to the newer suburban homes while rentals to older, centrally located apartments or converted houses.

Accessibility plays a major role in the demand for any residential area because it dictates the ease with which contacts are made with other areas. It is concerned with the distance to be travelled, the time taken and the inconveniences involved (Glenn and Beyer, 19). All rational beings minimise the cost of distance by locating close to working place. This concerns the low income groups most of who cannot pay much for transport unlike people in the high income group who can live for from the place of work since they can afford transportation cost conveniently.

In deciding whether to live in a place or not, tenants also consider the nearness of the house to neighbourhood. The neighbourhood includes schools that their children or other dependants can attend, churches, recreational facilities, health centres, etc.

Generally speaking, the city centre commands highest rent in some towns. This is because of the income producing ability of the location. Hence such a location is normally used for commercial purpose. Socio-cultural factors also impinge on the demand for housing. As observed by Morris (1976), the type of residential accommodation depend on his status and cultural background.

Position and physical attributes also exert pressure on demand for housing. Housing is supposed to be a place of rest after work and where every comfort can be derived. The housing position and its physical characteristics need be considered before one can demand for a house. The positional factors that

affect demand for housing are: Communication with the neighbourhood, class of the people, exclusion from noise and noxious fumes and other non-coming activities. Primary distributive roads are dangerous to residential areas and people tend to desist from living around such roads. The layout of a residential area will also determine the type of people that will live there. The orientation of dwelling in relation to sunlight and direction of the wind will also determine the type of people that will acquire the building.

The aesthetic appearance of a given building will also attract the consumers. Buildings with poor appearance will at the same time command less price. Other physical factors that affect the demand for a building are the amenities present, the type of materials used for the construction and the organisation of the units. A consumer of any residential building will consider the amenities like toilet, bath, parking space and the construction of the building. A house that is made of cement block, rendered and painted will attract consumers than the one made of mud and left bare. This will affect the rent the tenants are willing to pay.

2.3.8 Institutional Environment of Housing Market

It is always convenient in analysing any market to consider the impact of demand and supply factors. However, this is not all. One should actively recognise that the economic forces of demand and supply operate within an institutional environment. In turn, this institutional environment has formal and informal components.

The institutional framework of any society consists of the collection of laws, customs, practices, systems of thoughts and beliefs and actions which influence man's activities. Depending on how developed the society is, these could be formal instituional arrangements and agencies charged with given effect to law, customs, practices, systems of thoughts and beliefs and actions which influence man's activities. Depending on how developed the society is, these could be formal institutional arrangements and agencies charged with given effect to law, customs and practices. For example, the Judicial System serves to give effect to, control and protect the institution of property rights. Also while formal institutional controls exist about the use of land in the form of Town and Country Planning laws, most communities still retain notions of what is acceptable as well as unethical use of land.

In considering the institutional environment of housing markets, the primary concern is with the formal, government maintained institutional arrangements. This is because these influence (i) the nature of bundle of property rights owned (ii) the nature of rights that can be exercised by private individuals and groups, and (iii) the property rights held by the government through different agencies.

Essentially, individual property rights are the residual rights remaining after the government has reserved for itself four important powers viz:

(i) The power of eminent domain: the right to compulsorily acquire some other persons property with the payment of compensation. It is noteworthy that in keeping with the tradition of British legal institutions, it used to be thought that the law of eminent domain in

in this country used to mean the right to take property with adequate compensation. However, the provision of land use Act 1978 suggests that the compensation needs only to be "prompt" (See, Section 29).

(ii) Police power - the power of the state literarily to police an individual's use of his property. Police power is therefore the right to control the use to which a land resource could be put, for the protection of "the health, life, limb, and morals of society. This right enables the government to compulsorily acquire some other person's property without the payment of compensation.

(iii) The power of Taxation - the right to impose taxes on private property according to any criteria deemed fit.

(iv) The fourth power is the right of escheat - the right held by the state to claim any property whose owner dies without any heir. This is presently an unusual occurrence in the country.

The residual rights held by the individual enables him to occupy, use, alienate (sell or give away freely), lease, possess, enjoy the rights in property which he previously held. Property rights are best thought of, in terms of size and duration. For example, by contract, the rights and obligations in a subject of property rights can be established (size). Also the period for which the rights and obligations hold (duration) can also be established. So one can talk about a statutory right of occupancy for 99 years renewable at the pleasure of the Governor. Also, one can consider a lease (with appropriate approval), granted to other person for various durations less than 99 years, with certain rights and obligations.

In reality, these private property rights, are at the heart of property value. A building, generating housing services, repre-

sents the object in which property rights can be held. Consequently a discussion of the market for housing services is actually a discussion of the market for housing services with certain legal implications. The desirability of housing and the price that those demanding it can afford to pay is therefore influenced by the nature of government controls and restrictions.

The institutional framework should not be perceived in merely legal perspective. Operationally, institutional arrangements helped in diverse ways:

(i) To increase or reduce the supply of housing in the market, and

(ii) To increase or decrease the demand for housing in the market.

For example, Town Planning laws could:

(i) restrict the amount of land available for a particular use;

(ii) restrict the amount of housing space through height (intensity), set-back, and sight-lines restrictions; and

(iii) control the amount, type and quality of housing through building codes, plan approval criteria, etc.

Government policy, laws or programmes could increase or decrease the supply of housing. The government can do this by:

(a) Encouraging private developers and public agencies to provide housing by:

(i) reducing the cost of building materials

(ii) making affordable housing loans available

(iii) making building available at affordable cost

(iv) direct provision of housing units

(b) Discouraging private developers and public agencies.

There are actions that reduce the incentive of developers to supply new housing or maintain existing ones. This can be due to actions that:

(i) increase the cost of constructing new buildings; high import duty on building materials, development levies.

(ii) increase in the cost of acquiring title to land

(iii) difficulty and uncertainty associated with obtaining approvals.

(iv) reduction in the revenue or returns receivable by property owners due to property taxes in excess of value added.

(v) rent control.

The significant effects of institutional forces on demand is:

(i) to increase the propensity to demand housing

(ii) to increase the ability to make effective demand for housing.

Government policy and programmes under consideration are government actions that increase the demand for housing in a market by increasing the ability to make effective demand either for rental housing or home ownership. These consist of the following:

(i) Rent control Edicts - In the short run, rent control edicts enables a renter with a given housing budget to make a bid for more housing services than before.

(ii) Rent Subsidies/Allowances - These increase the size of the housing budget making it possible to either pay a higher rent or afford a higher debt service obligation that would not have been possible.

(iii) Government Sponsored Loan Schemes - These facilitate home ownership. From the perspective of a developer, a loan scheme make it possible for more persons to purchase housing units.

2.3.9 Housing Occupation Costs

This concept refers to the annual or periodic costs to an occupant of occupying a unit of accommodation. It is an important concept in rental housing market analysis. The concept of cash solvency in its two dimensions - short term cash solvency and long-term cash solvency, is relevant here. (An economic unit is cash solvent, in the period under consideration, if it is able to meet its cash obligations as they fall due. In the long term, the unit should not only survive economically but should grow and achieve the purpose for which it exists).

When housing occupation costs exceed the cash-paying ability of occupants, the occupant is cash insolvent with regards to his housing occupation obligations. The housing delivery system then has to make compensating adjustments or breakdown.

Strictly speaking, housing occupation costs include the actual money payment for housing unit occupied plus any additional user fees or charges attached to the occupation, plus the opportunity cost of services in lieu of payment. For example, a tenant in a Brazillian style tenement building has the following obligations; Rent at ₦50/room/month, electricity bill at ₦5/month, water rate at ₦2, Night watch levy ₦4/month; premises cleaning charges ₦3/month. The total of all these expenses gives the monthly housing occupation costs.

2.3.10 Housing Ownership Costs

Housing Ownership Costs refer to those costs of ownership associated with owning a unit of housing. Consider the example

of the owner of a single family house with the following obligations:

(i) Debt service ₦3,000.00 per annum

(ii) Cost of Repairs and maintenance ₦1,250.00

(iii) Annual costs for sinking funds ₦250.00

(iv) Taxes, fees and charges, property tax ₦600.00

(v) Ground rent charges

(vi) Forgoen return on equity investment ₦2,500.00

Total annual cost of ownership ₦6,650.00

An occupier who owns his property does not need to pay rent but is responsible for debt service obligation in addition to foregoing return on equity invested in the property.

2.3.11 Principal Types of Rental Housing

Investors in rental housing have an array of investment opportunities to choose from. While risk and return from each opportunity are of paramount importance to each investor, the final choice is to a large extent determined by accessibility to cash, personal bias and the status quo at the time the investment decision is being taken.

In making an investment decision, the media of investments available to the rental housing investor are many. Studies employing residential building statistics are often hindered by the lack of consistency in definitions of housing types. The focus here is to define the various housing types.

(a) Tenement Buildings

This refers to residential properties that are built and let out as single rooms or a combination thereof (i.e. of the

single rooms). They are found in the high density areas of the urban housing market. They are also called room to room accommodation or rooming houses. The most striking feature of this type of residential property is that facilities i.e. toilets, bathrooms, kitchens, etc. are shared and thus there is no exclusiveness of occupation.

Theoretically, they are supposed to be the most risky of all residential property investments (Britton, William et al, 1980). As an investment holding, the low income structure of the tenants makes rental default a common feature thereby rendering the accruing income less secured. The many tenants closely laboured under the same roof often create managerial problems of settling frequent outburst of fights. Thirdly, the intensive utilisation of the premises and services therein accelerates depreciation which guages up operating expenses. As the recourse of the poor urban workers, tenement properties have for ages remained the focus of rent control laws.

Adedibu (1987) found that, contrary to the theoretical position, tenement properties "tend to be the most secure (less risky) of all residential property investments because tenants find it easier to pay the rents charged (since they are the lowest) and thus security of income is guaranteed also as it is very easy to let tenement buildings since its catchment area (population of tenants) is very high.

In Western Nigeria, rooming houses have become a dominant feature since, among other things, it is a form of housing which provides rental accommodation at reasonable costs for the large

immigrant population in the rapidly expanding cities. In its most common form, the rooming houses have numerous rooms arranged in linear form on one or both sides or an access corridor. The typology with rooms on both sides of an access corridor is generally called the "face me I face you" house since the door to the rooms on opposite sides of the corridor often face one another.

Many of the older traditional family compounds and the 'Brazilian' single family town houses have been converted into rooming houses as housing demand increases in central city areas (Oluwatudimu, 1990).

Contemporary examples of this house type range from six bedroom bungalows with services in the background, to two storey (three floor) buildings with up to thirty six rooms or more with cooking and sanitary services on each floor. These services are usually shared among the numerous tenants with considerable inconveniences and low levels of privacy. In some of the overcrowded areas of Lagos e.g. Mushin, it is not uncommon to find the inhabitants doing their cooking inside their rooms or in the corridors. Quite often, due to shortage of space, tenants place their storage cupboards along these corridors (Oluwatudimu, 1990).

Wilbur Smith Associates (1980) found that rooming houses and the apartment buildings accommodate the greater proportion of urban dwellers; up to 80% of the housing stock in Lagos Metropolitan area. Essentially the term refers to buildings divided into separate apartments, (usually on two or more floors) each of which is rented out or owned by a household. The difference between these and the rooming houses is that the apartments are self contained i.e. they have greater autonomy with respect to privacy, cooking and sanitary

facilities. They are an increasing form of housing investment in urban centres. It is, however, a trend which favours income clients, since the difference in rents compared to rooming houses is usually quite substantial. From the post-civil war era, the years of huge surpluses from the scale of crude oil; Nigeria has promoted the growth of higher standards in private sector residential housing for the increasing proportion of tertiary workers. In general, these block of flats are built using modern technology with columns and suspended floors in reinforced concrete.

The apartments are generally designed on the basis of "westernized" concepts of urban life with a seperation of day-time from night time activities zones and verandahs as the only form of private outdoor space. They are generally more adapted to the needs of the nuclear families.

High rise apartment blocks of up to twenty-two floors have begun to multiply on the Lagos skyline (Oluwatudimu, 1990). These buildings which were introduced in the 1960s in the high income residential areas of Ikoyi and Victoria Islands in Lagos, are now being built on a much larger scale especially where there is a demand for "luxury" housing. So far, this tendency has been limited to the bigger cities only.

Several distinct structural changes on both the demand and supply sides of the housing market have converged to accelerate the trend toward apartment construction and the provision of rental accommodation.

Bourne (1973) attributed the increasing specialisation of the building industry in apartments construction results from several supply factors operating together. Rising land costs throughout,

augmented by an insufficient supply of reasonably priced land on the urban fringe, have increased the pressures on residential land development - which makes it increasingly difficult to construct anything but high - density residential buildings or high-cost low-density units within the larger metropolitan areas.

The "Brazillian" House Type

The "Brazillian house" is more often a storey building built in bricks with suspended floors in timber, featuring artistic decorations and bright colours. These buildings with their elaborate artistic decorations were considered as symbols of prestige and were adopted by the most influential members of the society not only in Lagos but all over Yorubaland especially in Abeokuta, Ibadan, Ijebu-Ode, Ilesha and Ile-Ife (Marafatto, 1983). The introduction of Brazillian house types into Western Nigeria started in the latter half of the century, after the repatriation of slaves liberated from Brazil and Cuba to the harbours of Badagry and Lagos on the Atlantic Coast. A good proportion of those persons, many of whom were skilled craftsmen and commercialists settled in a part of the Lagos Island east of the old Lagos called "Popo Aguda" or Brazillian quarter with their own style of houses (Aderibigbe, 1975).

The assimilation of the imported model brought about the introduction of various new elements into the indigeneous buildings. Some of these include the internal stair cases, upper floor verandahs, the windows and doors.

Apartment Buildings

Various definitions have been ascribed to the term "apartment". For example, the Central Mortgage and Housing Corporation, the Canadian Federal Housing Agency, defines apartment to include "triplexes, double duplexes, row duplexes, and other multi-family units. Other agencies, however, such as the metropolitan Toronto Planning Board define apartments to include only those structures consisting of several multi-family units. "An apartment unit is a self-contained dwelling unit in a building containing ~~six~~ six or more units which share a common means of access at street level" (Metropolitan Toronto Planning Board, Survey of Apartments 1961).

Apartments by most common definitions are distinctive within the urban housing inventory in only two regards; they are usually of high density construction and they represent rental accommodation. Clearly neither of these criteria are in themselves distinctive as some apartments do not fit into either of these categories. Generally, however, apartments can be characterized by both criteria, and the uniqueness of apartments derives from this combination. Any discussion of their distribution or extent must therefore dwell on the reasons for and implications of high density construction, and the nature of both the housing industry and the rental housing market.

2.3.12 Qualities/Facilities Needed by Tenants in a Building

Building and Ground

The following are the qualities inherent in buildings that make it attractive to tenants:

(i) Attractive well constructed building

(ii) Good maintenance and upkeep of building

(iii) Clean environment

(iv) Well-lit and unimpeded halls, entrances, stairs

(v) Reliable building management and supervision

(vi) Attractive landscaping with adequate outdoor space for tenants

(vii) Locking entrances, protected from outsiders, clean attractive lobby.

Services and Facilities

The following services and facilities are very essential in a building for the use of the occupant.

(i) Laundry equipment.

(ii) Parking space.

(iii) Adequate fire escapes.

(iv) Storage lockers.

Living space in the apartment.

(i) Adequate room sizes and storage space.

(ii) Convenient floor plan.

(iii) Attractive decorating and fixtures.

(iv) Pleasant views.

(v) Windows located to provide enough air, light and ventilation.

(vi) Agreeable size, type and placement of windows

(vii) Easy cleaning and maintenance.

(viii) Furnished appliances in good condition.

(ix) Suitable wall space for furniture

(x) Attractive, easy to clean floors

(xi) Well fitted doors.

(xii) Conveniently-placed attractive outlets.

2.3.13 An Overview of Rental Housing Management Function

Management job is carried out by a manager; this may be the landlord, a caretaker or the professional property manager. The property manager is the dynamic, life-giving element in every estate. The quality and performance of the property manager determines the success of property management; indeed they determine the useful life of the property.

Property management must always, in every decision and action, put economic performance first (Drucker, 19). The existence of property management can only be justified by the economic results it produces. Property management also produces great non-economic results: the happiness of the property owner, the contribution to the welfare and culture of the community, etc.

The economic performance as far as property management is concerned is unique. It is on this basis that the performance of the property manager can best be measured. Also the evaluative criteria in the final selection stage of a decision making process in property management is the economic oonsequences or justification of the various feasible alternatives. Thus, it is a limiting factor in those decisions not their starting point or rationale. For example, when there is a management problem that can lead to loss in value of the property, whether a remedy

decision is worthwhile or not, depends on the economic consequence(s) of such decision.

Managing an estate rests upon the need to plan and control. The idea of planning arises out of the need to establish a set of objectives and the description or the means of achieving those goals.

Planning is mainly an issue of policy decision while controls are chiefly exercised through the organisation structure. The question of control arises from the need to ensure that the plans are executed and modified to suit changing circumstances (Drucker, 19).

The meaning given to an estate is also wide and includes any interest in landed property giving rise to a measure of control. Control is the ultimate test of property management. The achievement of property aims through an efficient and effective control system induces the landlord or the property manager to carry out his responsibilities.

For a landlord who wants to manage his own property (in the case of a small estate), he may find property management to be more scientific. There are some management routines that are established and from here the landlord derives his experience and skill (such management routines include rent collection, inspection of the property, carrying out repairs of short live components of the property, etc.).

Often, complex management issues arise and the need for good conscious analysis and guesses become unavoidable for good management decisions. Thus, for an efficient managing of a property, a strong close of imaginative and judgement sense is important. As Sayles (1969) observes: the very bad manager will obviously

"look" bad and the very good one will not be missed either". Managing therefore, remains the first task of property management in realisation of property aims.

Effective management starts with a clear understanding of the property aims and objectives. After this, a property manager involves himself in a process by which a course of action is consciously chosen from available alternatives for the purpose of achieving the desired result. After the selection of goals follows planning, procurement, organisation, co-ordination and control of necessary resources needed for the achievement of the pre-determined goals. Some important elements of management are discussed below:

Forecasting

Management involves taking decisions which affect the future but before these can be made, it is necessary to make allowance for the conditions that lie ahead (Thorncroft, 1974). A property manager that cares more about rent review or future expansion of the estate must possess the ability to analyse and interprete obtainable facts, and also be able to make accurate guesses. Where all the facts necessary to make accurate forecast about the condition of a property are available, a property manager can predict about its likely future physical and economic state with intelligent guesses.

Forecasting, being futuristic, is usually based on some time horizon; short, medium or long term. Whatever the term, the degree to which what is actually obtained will correlate with a forecast, must be judged (Thorncroft, 1974). This gives an idea to what

extent a forecast can be relied upon.

Planning for Management

Planning is a process of visualising and getting through the use of appropriate tools, a set pattern of most desirable future state of affairs. The set pattern then serves a frame of reference for subsequent decision or policy making. To do this, the manager requires an ability the analyse situations and make appropriate forecast.

Planning comes up when there is a need felt and some problems are identified. The property manager will strive to stipulate plans which are required to:

(a) Control the investment process by ensuring that the management works proceed smoothly.

(b) Reduce costs, particularly by taking advantage of the economies of scale and standardization.

(c) Ensure that the estate's resources are kept continuously, fully and profitably. (Thorncroft, 1974).

Planning has a very strong relationship with time and thus in classifying plan, short-term, medium term and long-terms are used. At all managerial level plans must effectively result from rational planning process. The planner may consider this logical orderly sequence.

(i) Define the objectives

(ii) Establishment of premises and constraint; includes applicable policies; existing plans, forecast of future conditions and factual dates. These are the assumptions and facts on which a plan will based.

(iii) Analyse data and results in step.

(iv) Develop alternative plan

(v) Select the best plan; this is the major decision point in planning.

However, if the proceeding step have been done effectively, it may be the easiest parts of the entire process.

Organising

Having planned, the manager has to organize. Organising consists in the structure and allocation of jobs to various people, and co-ordinating their efforts, in carrying out various management activities. The function includes putting the right thing in the right place. Organising stresses across tenancy administration especially in collecting rents, (may be monthly, quarterly, etc.) and other charges and rates. Organising is very important in maintenance and repair works in a building. However, the guiding principles of a property manager are the aims and objectives of the estate which he has to constantly put in mind.

Staffing

After a good organisational structure might have been set, staffing for the implementation of the plan sets in and its requirements depend on the size of the management work to be done. Thus management also involves providing the right calibre of men and women in the right number to perform the right duties as a means of realising the objectives of the estate.

Directing

The manager has to guide the actual performance of the workers towards stated goals. This is directing. Human nature being what

it is, workers cannot be totally trusted to work according to schedule without some guidance. Each manager, no matter the scale of job must motivate his workers, or staff or tenants, by consulting, informing and encouraging all associated with the estate so that a sense of patnership and joint endeavour is established.

Co-ordinating

This is the function of management which integrates efforts. Effective co-ordination in management depends upon adequate communication, balance and control within the enterprise.

It is a vital aspect of management particularly in construction as most works are carried out by small team or group. Non-co-ordination leads to poor performance or delay. Co-ordination ensures higher productivity and proper control.

Controlling

The management function that guides current performance towards pre-determined goals or plans to known as controlling. Control by the enforcement of lease covenants, for example, can be effected in a variety of ways - strictly, leniently, selectively, formally or informally and whichever manner is employed carries its implications - for estate policy (Thorncroft, 1974).

Property Management Functions

Property management shares the same principles, in organisation and administration, with any other aspect of management (viz: Banking, Insurance, Industries, etc.). Property management entails organisation of men and their expert knowledge to maintain buildings in an acceptable condition.

Only a manager's experience can bring the estate's aims and objectives to life, concretely and meaningfully. But because they are formal, they apply to every manager and to everything he does as a manager. They can therefore be used by every manager to appraise his own skill and performance and to work systematically on improving himself and his performance as a manager.

The property manager applies these functions to perform his own functions of space planning, marketing of property services, conserving property and its surrounding and supervision of operations on the property.

For good property management, the management, the management surveyor should put himself into three important positions:

(i) As the owner who is always conscious of potential changes in value of his property and working towards an optimum return from his property.

(ii) As the tenant, whose quiet enjoyment of the property must not be interfered with, and whose incapabilities in the short run must be duly considered as in the case of a bad business turn up due to bad economy which may temporarily lead to inability to pay for rent for a while.

(iii) As a member of the community in which the property is located, their interest and the effect of the condition of the property as it affects them.

The above points will, if adequately cared for, help management to render service, devoid of selfishness and one-sidedness while at the same time its profit will be catered for.

Management Objectives in the Private Residential Property

Management objectives in the private residential property include; ensuring adequate return on investment and achievement of estate goals.

Ensuring adequate return on investment. This is with respect to the security and regularity of the investment income. Depending on the motives of the owners, long term profit is one of the aims which necessitates the management of an estate and thus a property manager will want to taks the question, whether the estate can fulfill this function.

However, sometimes, the pursuit of the highest return from an investment may not be the premium but putting the property into a suitable use, bearing in mind the physical character, the environment in which it is situated as well as both the legal and economic circumstances prevailing.

Achievement of estate goals. Property aims and goals differ from one property to the other and they are to be constantly kept in the property manager's mind in order that the might be accomplished.

Ensuring good state of repairs can be achieved through regular maintenance. The ease with which this objective can be fulfilled may have bearing on how well the available resources have been integrated during and after the development stage of the property

Another objective is to ensure a greater property life span. The policies and methods required for attaining this objective will include among others, simplicity in design and layout (as provided by architects) and sound maintenance (by the property manager). Landed properties are often referred to as "wasting

assets i.e. obsolescence sets in as the property ages and thus judicious application of fresh investment may lead to an efficient state of use and thus a greater life span of the property (Thorncroft, 1974).

When the management objective is that of ensuring a greater life span of the property, then, the trend towards physical and functional obsolescence forms an important economic feature that motivates the conduct of an estate. The achievement of this objective hinges on a collaborative effort of several people. It must bring out the greatest wit of the Architect, as a designer to ensure that there is simplicity in design and layout. This may require sometimes the acceptance of "open plan" and sound maintenance management by the property manager at least to temper the influence of early obsolescence.

Essentials of Good Property Management

Essential things needed by a landlord or property manager for an efficient management work include:

(i) The manager's intellectual conception of the work processes that he should keep in "control" that is, what he is going to monitor or supervise.

(ii) The operational methods by which he checks, monitors, and appraises these processes.

(iii) Criteria for evaluating the significance of what he observes (when and where emergent problems require some types of manageria action).

(iv) A description of remedial actions (short-term corrections) that the property manager takes, the channel through which he moves and techniques he uses.

(v) Criteria for identifying occurring or "high amplitude" disturbances (functional or economic risks) that there are heavy a chain on his managerial resources and process effectiveness.

(vi) Methods of coping with these disturbances in introduction of organizational (long-term) corrective change (Umeh, 1977).

Later in this study, we will examine the current practice and strategies of formal and informal rental property managers in the residential submarkets of Ibadan. By formal property manager is meant the registered Estate Surveyors and Valuers while the informal managers are the landlords (rental property owners) (particularly in high density neighbourhoods) who perform the traditional duties of a property manager, that is, who "manages" his own properties rather than contract out the work to registered estate surveyors and valuers.

2.3.14 Affordability Criteria in Housing

A key issue in determining the appropriateness of urban services to low income populations is whether or not a project is affordable. The concept of affordability in urban development projects is important for two basic reasons. One is that the projects must be "replicable", that is, they must be able to be repeated by the country with little or no subsidy involved. The second, and perhaps more important, reason is that urban development projects are generally meant to be accessible to a certain portion of the low-income population. One of the goals of the special evaluation study has been to ascertain whether the projects are reaching the target income groups and to make the appropriate

recommendations if they are not.

Affordability can be defined as follows: a certain level of urban services is affordable to a low-income beneficiary household if the amount from monthly income that a household is willing and able to pay for shelter-related expenditures is sufficient to cover the monthly costs of providing these services. In symbols, affordability can be estimated as follows (World Bank, 1980):

$$C \leq \alpha Y$$

where C = monthly project cost,
Y = monthly family income, and
α = the proportion of income the family is willing and able to spend on housing.

Most of the issues regarding affordability are concerned with examining the parameters "a", "Y" and "C". In particular, it is crucial to determine if they have been measured accurately, and if the assumptions made by the policy makers in performing their calculations are valid. If the assumptions do not hold, it is then important to investigate whether there have been any developments external to the project (such as inflation) which have affected these assumptions or if discrepancy is due to faulty project design. Evaluating the accuracy of the measurements and the assumptions behind them is a key element in assessing the overall success of a project.

Affordability in housing means how much is a household or an individual is capable and willing to pay for his housing need with most basic facilities. In trying to arrive at a situation

where the low income group or even the poor in the cities could easily be housed, Nigeria in 1980 and 1991 formulated two National Housing policies. The overall policy was based on the concept of affordability and aimed at "providing the best possible housing within the resource constraints of each individual household". The implementation of the 1980 policy was based on two essential premises. Firstly, the gross income of the head of household was used as the yardstick for allocating units and secondly, general assumptions regarding the percentage of gross income that the household can pay towards housing were used to determine the nature of the housing supplied.

However, in the context especially, of low income housing, both these premises have serious limitations. The consideration of gross income of only the head of household rather than the next income of the entire household distorts the real earning power of low income families. The traditional baseline used in designing low cost housing project, that is that the household will pay 20-25% of their income for shelter and related services has also not been found to be true (Urban Edge, 1986).

Infact, even simple descriptive measures of the marginal propensity to consume housing such as rent to income (in case of tenants) and value to income (in case of owner-occupier) ratio, while giving a fair idea of how much households are willing to spend on housing, are constrained by that affordability does not mean willingness to pay only, but capability as well.

Affordability is essentially, a behavioural concept and to establish what the household can afford to pay, it is necessary

to have a thorough understanding and insight into the lifestyle of the target group since, apart from the total earnings of the household, affordability is affected by several other factors including security of the principal and secondary sources of income, savings, spending patterns, place of housing on the household priority list, etc. (Malpezzi et al, 1982). In some regions, affordability is affected by climate and culture e.g. Iran, Tanzania and Turkey.

Thus the two premises on which the implementation of housing policy in Nigeria was based have proved to be fallacious in the context of low income housing. It is not suprising therefore that houses meant for low income household were eventually bought by the middle and high income households (Harr 1987, Oruwari, 1984). By and large, what was achieved was an increase in the housing stock in the country although not for the target group: that is the low income household whose needs are manifested by the escalating growth of squatter areas all over the country in the last decade (Izeogu, 1986). The main reason for this trend is that by the time the units were completed, the selling prices were out of reach of the target group (Onibokun, 1983).

It is thus necessary to take an indepth look into the elements that make up the financial constraints such as:

(a) what are the sources of income for a typical low income family?

(b) whether or not income is regular;

(c) the needs that compete for whatever resources that are available; and

(d) the sites for housing in the overall context of such households.

A comprehensive examination of household income generation and expenditure patterns are necessary prerequisites to any attempt of addressing the question of affordability towards housing a typical low income urban family in Nigeria and becomes particularly significant when viewed against the backdrop that; while on one hand 80% of the people in the country are not able to easily purchase housing in the open market either as owners or renters. On the other hand, subsidization from national resources cannot reach out to the poor with any significance as evident by certain case studies (Davidson, 1984). The perception that housing is a form of social welfare that can and should be provided by public agencies, is eroded by the pressure of harsh fiscal measures introduced by the government and the public housing programmes to strike the right level cost (Urban Edge, 1986).

From the foregoing discussion, it can be seen that the wrong implementation of the affordability basis in the National Housing Policy has reduced the fate of the low income group and the urban poor. But still the urban poor must be housed. That is why most of our environment continuously deteriorate with formation of pocket slums all over the cities. Thus, if the country wants to genuinely provide housing for the poor people, their earning capacities must be borne in mind and their affordability placed in the correct perspective so as to check continuous habitation of slums and squatters which are dangerous to health and social development.

2.3.15 The Concept of Rent and Rental Value

The word rent or rental value has been subjected to a multitude of epithets. It is capable of attracting many meanings. It is therefore necessary to make some clarifications on the issue of rent.

Rent refers to any payment to any of factors of production not perfectly elastic in supply, with land as the principal example. It can also be defined as a term for a monopolistic price on the earnings of more or less specific means of production whose supply cannot be increased or decreased.

"Rent" in its general sense can be defined as "an annual or periodic payment for the use of land or of land and buildings" (Lawrence et al, 1974). We can however have market rent, edict rent, economic rent, contact rent, ground rent, replacement rent, gross rent, rack rent, head rent, profit rent, etc. depending on the resultant force(s) under which the rent is fixed. A rent fixed under the normal economic forces of demand and supply is termed market rent. On the other hand a rent fixed in accordance with the provision of an edict or a statute will be styled edict rent (Ojo, 1978).

Economic rent is that amount paid over and above the market rent. Contract rent refers to the actual payments tenants make for their use of the property of others. The amount of these payments is normally agreed to by the landlord and tenants in advance of the period of property use and thus stems from mutual contractual arrangements. Ground rents represents the rental value of the bare site at the time the lease is granted. This

type of rent is charged under the building lease and in most cases is fixed in nature and can be for a period of ninety-nine years. Gross rent can be defined as the rent passing or charged on a property under the situation or contract whereby the tenant undertook to pay all the usual tenant rates and taxes and the landlord undertook to bear the cost of repair and insurance and all other expenses, if any, necessary to maintain the property in a state to command that rent (General Rate Act (1967) Section 19(6)(a)).

Replacement rent is the threshold level of income which is required to economically justify the expenditure of current construction cost. Market rent and replacement rent are not the same in today's market. As a result, market rent has been increasing persistently to meet replacement rent. At a point where they meet the market will be in a state of balance or equilibrum. Rack rent can be defined as the rent paid to the investor in the perfect competitive market which represent the highest rent the property can command at a given time. This is also termed "full rental value" or "market rent". Head rent is the rent reserved under an occupation lease where it is less than the full rental value while profit rent is the difference between the full rental value and the head rent paid by the tenants.

In this study, "rent" is taken to mean the "contract rent", that is the actual, monthly or annual payments made by the tenants for the use of residential property of landlord and usually fixed by contractual agreement in accordance with the prevailing market forces (market rent). All types of residential properties in the

free rental housing market will be the main focus while the landlords (owner occupiers) would be treated as renting to themselves.

2.3.16 Factors Responsible for Escalating Rental Levels

It is considered pertinent to identify factors that could possibly explain persistent increases in prices of rental housing as a necessary preliminary to hypothesis formulation. From our literature review, several factors have been mentioned as factors that motivate periodic rental reviews and which can therefore be regarded as responsible for increasing rental levels. Principal among these factors are (i) construction cost (ii) income levels (iii) prices of building materials, inflationary trends (iv) general level of prosperity (money supply as measured by total currency in circulation) (v) cost of funds (lending rate of financial institutions (vi) population growth and the consequent increase in demand for rental accommodation and (vii) vacancy level.

There is need for some clarification here. Factors such as location, types of finishes, accommodation quantum are identified by some authors as influencing rental values at the inception of a lease when contract rents are to be fixed. However, they do not explain trends in rental values or provide explanations for the present escalating prices of rental accommodation in the urban area. We propose in this study to analyze the factors responsible for the escalating rental prices. Therefore, our hypothesis formulation will take into consideration those factors and changes in them (upwards or downwards) which the property owner or his agent may wish to pass to the tenant in form of higher rents or concessions (reduced rents).

In the light of the above, the factors which have been recurring through our discussion in this chapter will form the basis of our

hypothesis formulation viz: Income level, Construction cost, Prices of building material, cost of funds (lending rate of financial institutions, money supply as measured by total currency in circulation and inflation rate.

In selecting the above factors, we take into consideration the fact that rent determination and rent review is basically landlord's decision and factors considered are those that may influence supply abilities of the property owner just as choice of residence is basically a tenant's decision and factors considered are internal to the tenant.

It is noteworthy that the factors identified above have been rising upwards in the last decade in Nigeria particularly since the inception of the Structural Adjustment Programme (SAP). The income level have been rising as the government endeavours to cushion the pains of SAP through various relief measures. Nevertheless, the average family finds its real income or level of purchasing power, reducing. The cost of new residential construction has been rising much faster than the general price level. Our concern here is with the way high construction costs affect the functioning of the housing market.

The devaluation of the naira as a key feature of SAP led to high exchange rate and the increase in the cost of importation. As a result, the prices of building materials skyrocketted further worsening the cost of development. The fall in the real value of the naira made it compulsory for the increase in the rent to compensate for the loss in the value of rent stemmed from inflation. Under SAP, lending rate was increased to adjust for the increase in the risk of advancing loan. The increase in the cost of borrowing led to increase in the periodic income (rent) from the real property investment which is used in liquidating borrowed principal plus the interest on it.

In the same manner, SAP led to tremendous increase in the money in circulation. The excess liquidity was partly caused by the exporters of natural resources who failed to repatriate their foreign earnings in their foreign accounts and used the funds as collateral with local banks to raise Naira overdraft or loan and again used the loan or overdraft to finance further exports which proceeds were accumulated in the foreign accounts with commercial banks. With the above background, we will now proceed to formulate the hypothesis of this study.

2.3.17 Definition of Household

For the purpose of this study, we define a household according to the Nigeria Federal Office of Statistics as "all persons living under the same roof and having a common eating arrangements, that is sharing or eating from the same pot. Thus a person who eats his/her principal meals from the same pot of another persons or a group, but live elsewhere if so happens, is considered a member of the household where he/she takes his/her principal meals".

The head of the household is an adult member of household responsible for the overall management of the household while a housing unit is a unit of accommodation occupied by one single household.

Households are variously constituted, some are identified with families, others are composed of a single individual or group of related individuals; and still others are a combination of families or a family of individuals. For the purpose of this study, people living together in the same dwelling unit from part of the same household unit if:

(i) They live together in the same housing unit which might be a room, a flat, a duplex, etc.

(ii) they regard and accept the authority of a single head;

(iii) they contribute to a common budget; and

(iv) purchase and eat food from the same pot.

Household unit rather than the family is the unit of demand for housing and therefore the analysis of rental housing will be based on household units. The housing unit is a unit of accommodation occupied by a household, it may be a room, a flat, a bungalow, etc. A dwelling unit on the other hand is a separate building which may provide accommodation for one, two or more households living under the same roof. It can also be a bungalow, a storey building, etc.

2.4 SPECIFIC HYPOTHESES TO BE TESTED

Any attempt to explain economic behaviour requires the formulation of hypotheses from which limited predictions can be made and tested against the evidence in attempts to uphold or to refute them. In the absence of such refutation, the hypotheses may be said to hold (based on a particular study) as part of the store of generalization which constitute specific knowledge. Rental housing market analysis falls into this common mould that requires hypothesis testing. As regards this study, the specific hypotheses to be tested are:

(1) That rent is positively influenced by the income of the rental household.

(2) That lending rate is directly related to level of housing rent.

(3) Inflation rate has a positive relationship to rent.

(4) Rent is positively influenced by the amount of currency in circulation.

(5) There is direct relationship between average price index of building materials and level of housing rent.

(6) Rent has direct relationship to construction cost index.

2.5 SUMMARY OF CHAPTER

In this chapter, an attempt has been made to provide a theoretical and conceptual foundation for this study. It has been established that no single theoretical perspective could provide an adequate foundation for the problem being investigated in this study which has necessitated a multi-disciplinary review of the pertinent literature. An attempt was made to discuss the theoretical underpinings of the relevant variables before specific hypotheses were formulated.

The next in the sequence of steps for this study is to empirically test our hypotheses. However before this is done, it is considered pertinent to have an insight into our case study, to review the methods of data collection and also an overview of the statistical techniques to be utilised.

In the light of the above, chapter three focusses on the case study while chapter four focusses on the research methodology.

CHAPTER THREE

THE SETTING: AN OVERVIEW OF IBADAN ECONOMIC BASE AND PATTERNS OF RESIDENTIAL DEVELOPMENT

3.1 INTRODUCTION

Ibadan, the capital of Oyo State of Nigeria and one of the most indigeneous cities in sub-saharan Agrica, is the second largest city in Black Africa (After Johanessburg). The city is dynamic both in terms of physical development (expansion) and population growth. Such a city offers a good ground as a study area. Also, this city is considered as a suitable test bed for a behavioural study of rental housing market because of the fact that being a capital city, most of the residents, particularly the working class makes use of the rental subsector.

Ibadan was found in the 1830s as a camp for a refugee population seeking protection from the Yoruba wars which raged consequent upon the collapse of the Oyo Empire. Oral tradition suggests that the word - Ibadan is derived from "Ebo-Odan" which if literally interpreted means "near grassland environment". According to History, the site of forest - grassland was deliberately chosen so that while the nearby grassland territory provide farmland, the forest could provide the much needed protection for the refugee.

3.2 MAJOR RELIEF AND CLIMATIC FEATURES OF IBADAN

The physical setting of Ibadan is dominated by three major land form elements, hills, plains and river valleys. The hills are most spectacular around the city with the quartzite ridges and gneissic inselbergs being the two commonly recognised. The inselbergs run approximately in a north eastern corner, along

the Ibadan - Oyo Road (Faniran, 1982). The highest of these ridges lies in the central part of the city and contains such peaks as Mapo Hill, Mokola Hill, and Aremo Hill. The hills ranges in elevation from 160 metres to 275 metres above sea level. Generally, the hills cover not more than 5 per cent of the total area of the city.

The plain landform comprises about 80 per cent of the total surface area of the region. It covers essentially the areas between the hill bases and the usually intrenched valley bottom. They are usually smooth and rolling with convexo-concave slopes.

The city is drained by two major rivers; the Ogunpa and the Ona rivers. Ogunpa River drains the eastern part with its major tributary; the river Kudeti while the latter having many tributaries like Oshun, Alalubosa and Yemoja streams drain the Western part of the city.

With its latitudinal location (Lat. 7° 23') North of the Equator, Ibadan is under the influence of the West African Monsoonal Climate characterised by two winds; the moisture laden maritime South-West monsoon winds which blows inland from the Atlantic ocean between March and October; and the dry dust laden winds blowing from the Sahara Desert from November to February. The resultant effects of the two winds are the rainy season and dry season respectively. The seasonal variations in temperature recorded for the city followed the effects of the monsoonal winds. The mean maximum temperature of 28.8°C occurs in February while the mean minimum temperature of 24.5°C occurs in August. The mean annual rainfall in Ibadan has resultant effects on drought and flood,

but of greater importance is the occurence of floods in the city during the past years.

Table 3.1: Population of Ibadan (1911 - 1990)

Year		Total Population	Rate of Growth
1911	(Estimate)	175,000	-
1921	"	238,075	3.1
1931	"	387,133	5.0
1952	(Census)	459,146	2.8
1963	"	627,379	2.9
1972	(Estimate)	893,000	4.0
1975	"	1,019,000	4.5
1979	"	1,301,000	5.0
1990	(Forecast)	2,220,000	5.5

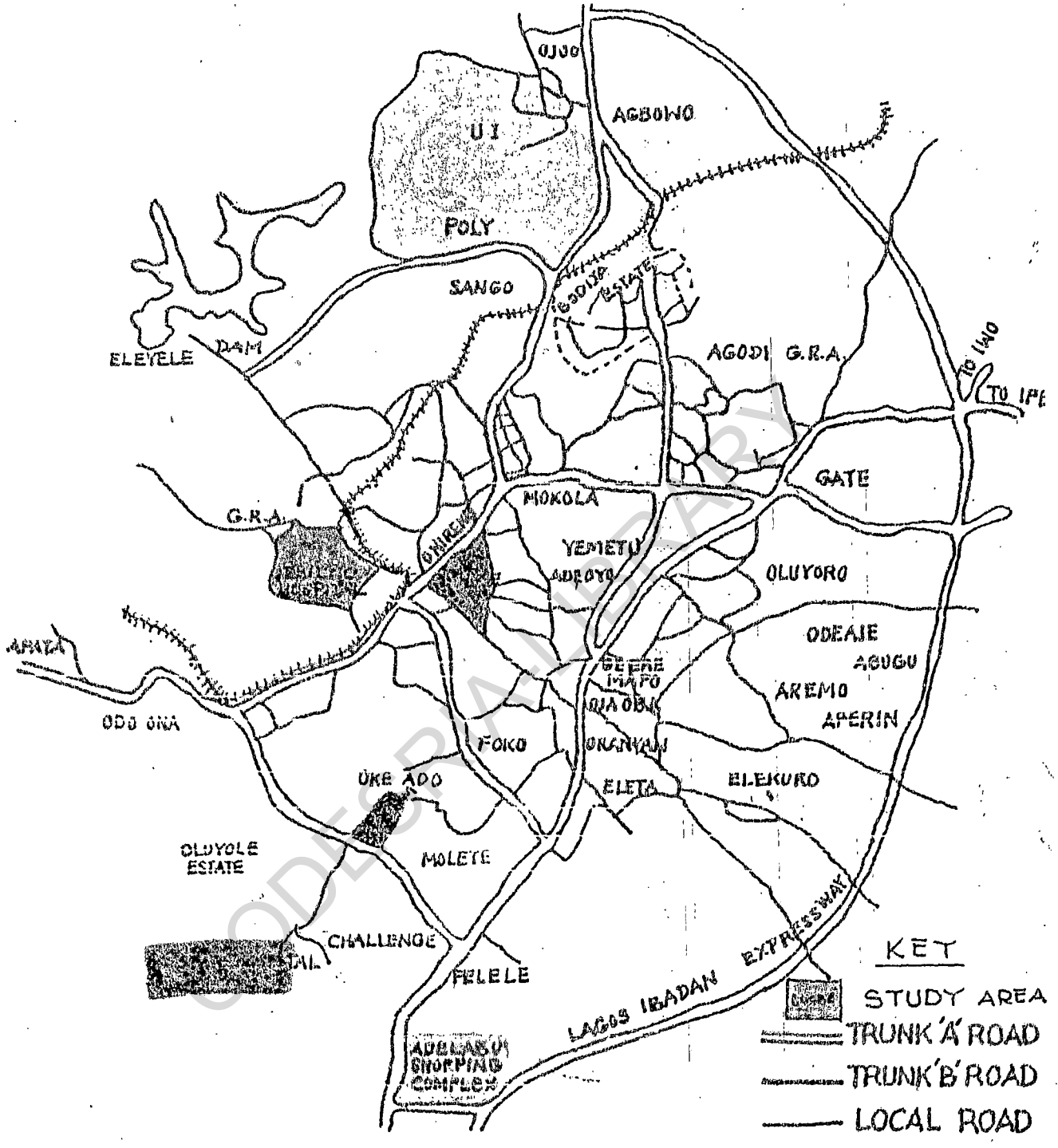
Source: Nigeria: Development Problems and Future Needs of Major Urban Centre, Ibadan.
- Doxiadis Associates.

The city is located on Latitude 7.23° North of the equator and 3.56° East of Greenwich meridian. The city of Ibadan is not only the political centre of the State, it is also the nerve centre on which major routes and commercial activities converge.

The city is important for its strategic location for economic and administrative uses; hence these have been increasing the population and the physical extent of the city. Table 3.1 shows the population of Ibadan after 1911 and the corresponding rate of its growth.

Ibadan city is at present being administered by Ibadan Municipal Government (formerly Ibadan City Council) with headquarters at Mapo Hall. It is the largest local government administration unit

THE METROPOLITAN AREA OF IBADAN



SOURCE: MINISTRY OF LAND & HOUSING
SURVEY DIVISION IBADAN

in the state. Because of the special position of the city, the municipal government has embarked on various economic projects with a view to modernising the city. Some of the projects include the Agbowo Shopping Complex, Adamasingba Stadium and Shopping Complex, various estates, the Alesinloye market, the New Gbagi to mention a few.

Even though the indigeneous areas of the city are not well planned, efforts are being made by the Ibadan Area Planning Authority to provide a healthy urban environment for living, working and recreation. The Authority has exerted considerable influence in the city in many facets. The former Western Housing Corporation established a model housing estate at Bodija - a well planned residential area which compares favourably with similar estates in other parts of the world. It covers about 162 hectares of land and is planned to accommodate 1,200.

Ibadan mirrors the complex slum problems by most cities in the emerging nations. The residential blight and other problems which Ibadan shares with world cities elsewhere have been comprehensively documented (Onibokun, 1969; Lloyd, Mabogunje and Awe, 1967).

A general survey of the city reveals three contrasting areas:

(i) the peripheral suburb, including the government housing estate and government quarters.

(ii) the newer inner suburbs of "recent" immigrants and almost all major offices, large commercial houses, business firms, banks, state government ministries and other large scale economic investment; and

(iii) the heart of the city, an area that Mabogunje and Okediji, refer to as the "core sector" of Ibadan (Mabogunje, 1962; Okediji, 1967).

The administrative area covers an extent of 452.6 km^2 or 45,260 hectares. The city structure is almost circular having 12 kilometre radius on adoption of Mapo hill as the centre. But the concentric structure is disrupted by the Military Secondary School, Abeokuta Road, New Army Barracks, International Institute of Tropical Agriculture (IITA), Oyo Road, and Standard Breweries of Nigeria, Alomaja Village. The identifiable uses include those of Residential, Public, Transportation, Primary Production, Woodland, Industrial, Business and Commercial, Water Body, Recreation, Utilities, Vacant or Rural Land.

Table 3.2:gives the general analysis of the land use in Ibadan.

Table 3.2: General Land Use Analysis: (12 Km Radius From Mapo Hill)

Type of Use	Areas in Hectares	Percentage of Total
Residential	10,880	24%
Public	5,160	11.5%
Transportation	2,150	4.7%
Primary Production	1,500	3.3%
Woodland	900	2.0%
Industrial	700	1.6%
Business and Commercial	390	0.9%
Water Body	200	0.4%
Recreation	150	0.3%
Utilities	50	0.1%
Vacant Land	23,180	51.2%
Total	45,260	100%

3.3 URBAN LAND USE AND THE LOCATION OF ACTIVITIES

Ibadan is one of the Nigerian cities that was allowed to grow for a long time without Master Plan. The consequence is

a great mix of activities such as residential and commercial, and sometimes residential and industrial as in the case of small to medium sized industrial establishments (Odusote, 1984). However, in recent years the government of the city has through the Ibadan Metropolitan Planning Authority, instituted a number of control measures that are leading to the emergence of discernible pattern of land use in the metropolitan area. The activities in the city according to Table 3.2 are:

Business and Commercial Area

There are two Central Business Districts in Ibadan: The first is the traditional business district called Iba Market which is located almost at the centre of the city and engages mostly in foodstuff and local materials and the second is the Gbagi-Dugbe Commercial Area (now called Old Gbagi-Dugbe Commercial Area).

Though the activities in Gbagi are not separated, nonetheless one can still demarcate between the departmental stores, banks, offices, and entertainment hall located towards the J. Allen, Oke-Bola - Molete Road and the wholesaling and retailing section of Dugbe, Lebanon - Agbeni - Oritamerin Street and Gbagi - Amunigun Streets. Some banks have branch offices at the wholesaling and retailing section.

Also, Gbagi commercial area is the focus of intra-city transport routes and the site is intensely developed at the expense of other centres, with most banks, departmental stores and office blocks expanding vertically.

The Central Business Districts extend along the main radia roads outwards forming ribbon shops and office accommodation and thus result in mix uses.

Generally, three types of mix uses phenomena came to mind. These include:

(i). Transformation of residential area to mixed uses (Residential and business). This applies usually to area under the pressure of business opportunities.

(ii) The principle guiding extending area for mixed residential cum business uses as stipulated by the Planning Authority.

(iii) Commercial, services and handicraft ribbons along the major routes, in front of residential blocks.

In the first case, front rooms of residential buildings are converted to shops or warehouses. This is peculiar to the inner core areas where shops line both sides of streets. In some cases, the commercial activities go deeper into the street blocks, resulting in the predominant residential use being overshadowed. Notable among such streets are Agbeni, Amunigun, Balogun, Ibikunle, King George. Many buildings along newly widened core area roads which are partially demolished petty businesses for example at Aleshinloye, Isale Ijebu, Bode, Sabo and Latosa Streets.

The principle guiding extended areas for mixed residential cum business uses is responsible for the emergence of offices of companies, departmental stores, and financial institutions in New Bodija Extension and South West Ring Road Bye-Pass.

In the third instance, all major roads for example Lagos Bye-Pass and all arterial roads experience mixed uses. Front houses are used for offices, automobile sales, super-markets, and so on with local service industries - Mechanic Workshops, Watch Repairing, Tailoring, Shoe making, and Wholesale warehousing. These activities

continued daily as ribbon stretches and about sixty kilometres of strip commercial that is trading on both sides of roads and streets have been established in the city.

Industrial Uses

There are two main divisions of industries in Ibadan namely: mnufacturing, and non-manufacturing such as warehouses, storage yards, contractors yards, oil storage and so on that are grouped together under industrial uses.

In recent times, industrial activities in Ibadan follow the major axial roads for example Old Lagos, Iwo, Ife Roads and so on. The only criterion considered in the location of such industries is mainly accessibility.

Among the recent industries are Triplex and Leyland along Iwo road, Nigerian Breweries along New Ife road, and Nigerian National Petroleum Corporation Petroleum Storage at Abeokuta Road. Among the old ones: that the urban growth has resulted to their location, within the city, are University Press, Nigerian Tobacco Company and Lafia Canning Factory.

Transport

There are two categories of roads in Ibadan. The Primary for example Abeokuta - Ibadan - Ife - Ibadan, the secondary roads such as Ring Road, Eleiyele, Yemetu - Bodija Road and Access roads which connect residential premises together with the secondary roads.

Most roads are either not well constructed or badly maintained. For example lack or inadequate drainage system and potholes are common in the city. The access roads are mostly affected and the

landlords or residents in the areas often contribute towards their improvements. Also there is the problem of refuse blockage on some roads which causes most of the traffic jam on these roads.

Railroad covers a distance of thirty two kilometres with main station at Dugbe and a substation at Bodija. There are two air fields at Ibadan at present. These are the old aerodrome at Bodija and the new airport at Old Ife Road. Transportation uses cover an area of 2,150 hectares i.e. 4.7% of the total land area.

Utilities

These comprise Sewage Disposal Works, Refuse Dumps, Incinerafors, Electric Stations and Substations, Water supply facilities and communication facilities such as Telephone buildings, Raidotowers. Refuse account for twenty-five hectares, and water supply shortage is experienced in the city. Pure water supply is highly essential for healthy environment, people and it aids increase in productivity.

Recreational Uses

These include camps, club houses, polo ground, praying ground and so on. Public owned open spaces are parks, Forest Reserves, Zoos, and Playing Fields. Others are cemetries and Golf courses. The locations of these areas lie mainly in the Western section of the city. This means traditional city has very limited access to the recreational facilities that are open spaces. The recent development here is the Trans Wonder Land which is presently attracting a lot of people.

Public Uses

The total land area devoted to public and cultural uses is

5,160 hectares, which is 11.5%. These include Secretariat, Schools, Hospitals, Army Barracks, Police Stations and barracks, Prisons, Religious, Welfare Places and places of entertainment.

Woodlands

Woods were planted for good reasons such as checking population of Eleyele Water Works, gully-erosion on Aremo bill and the Premier Hotel slopes. Woods are also planted for Research and Academic purposes of the School of Forestry and as a commercial Teak Free for Electric Poles. The land coverage of woodland is 900 hectares.

Primary Production

This mainly encompasses Agriculture for example Horticultural Research Institute at Idi-Ishin, Akanran road, Agricultural Scheme and Iwo Road Dairy Farm which are the major Agricultural undertakings.

Water Bodies

Among the water bodies are Eleiyele Lake, Alalubosa Lake and the Secretariat Fish Pond.

Rural Use

This refers to undeveloped and rural area of Ibadan Municipality which according to the 1981 Survey shows to cover 51.2 per cent of the total area. Ayeni (1982) however, found that the rural use account for about 10 per cent.

Residential Use

Residential Land Use in Ibadan dominates the total urban land use with a total land coverage of 10,880 hectares and representing 24.0% of the total land area. This use can be classified into three viz: high, medium and low densities. The table below presents analysis of residential land use.

Table 3.3: Residential Land Use in Ibadan

Types of Uses	Area in Hectares	Percentage of Total
High Density	4,940	45.4%
Medium Density	4,602	42.3%
Low Density	1,338	12.3%
Total	10,880	100%

Source: Field Survey by Town Planning Division Ministry of Environment, Oyo State, 1981.

High Density Residential Areas

This density accounts for the largest percentage of the total residential land use, about 45.4% with a land area of 4,940 hectares. High density areas are in the old core areas of the city and some suburban sprawls. The old areas are characterised by over crowding of buildings, with almost all available space being developed. Two storey buildings dotted this sector. The concept of traditional compounds is evident in those areas. New High density suburban areas are also characterized by overcrowding, lack of focal point and lack of contrast and variety. These areas include Ijokodo, Apata Ganga, Apete, and Akanran, Egbeda Tuba and Olojuoro Roads, in the Eastern part of the Lagos/Ibadan Expressway, Idi Arere, Foko, Agbokojo, Oja, Inalende, Oniyanrin.

The residential properties here are not well planned or well laid out; hence the nature is such that there are clusters of buildings with poor management and maintenance and are mostly occupied by their owners who often bring in relations to live with

them. These residential premises command comparatively low or no rent.

Medium Density Residential Areas

Medium density areas occupy about 4,602 hectares a representation of 42.3% of total residential land use. Among areas of medium density are Oke Ado, Molete, Ring Road (now Ibrahim Babangida Road), Idi Ape, Challenge/Orita Felele, Yemetu, Oke Bola.

Some new suburbs of Ibadan are also being developed/particularly along the axial primary roads. The buildings are mainly semi detached, two storeyed structures. Most of them have wall fences separating adjoining buildings from one another. More than 50% of the lots are developed the remaining being left as parking space (Jolayemi, 1984).

Population here is moderate and the properties put on some modern touch. Unlike the High density residential area which is noted with tenement structures, here are modern flats interspersed with tenements. The residential properties here command reasonable rents and the growth of rental yield is appreciable.

Low Density Areas

The low density areas represent 12.3% of the total residential use. The extent of coverage is 1,338 hectares. Low desnity areas are mainly government Residential Areas (GRA). The GRA include Agodi, Iyaganku, Onireke, Jericho, Bodija, and Oluyole Estates.

The buildings here are in most cases detached bungalows surrounded by a considerable area of open space and/or gardens. In a few cases, duplex structures form part of the residential

development. Buildings are often beautified with hedges, flowers, shrubs and trees. About 25% of lots are developed (Jolayemi, 1984). Two storey buildings are common in Bodija and Oluyole estates.

As noted earlier, Ibadan is a suitable test bed for carrying out of this type of research work because since 1970s, especially during the time of the oil boom, investment in real property increased and has tremendously changed in this state capital from the traditional status to this present sophisticated outlook. Due to the availability of resources for development in the past years, various levels of investors are springing up from here and there who buy or develop real estate for their own use as home, office, etc.

There have been earlier housing studies attempts focussed on Ibadan. These include Abiodun (1988), Onibokun (19), Mabogunje (1962), Arimah (1990), Ayeni (1984) to mention a few discussed in Chapter two.

Ibadan, which is representative of most capital cities in Nigeria, is being chosen as the case study not only because the city is dynamic in terms of physical development and population growth but also because previous studies on the city's housing market have not examined the crucial issue of balancing the demand and supply with a view to achieving equity. Similar previous studies like Ayeni (1982) and Arimah (1990), though focussed on Ibadan urban housing market, were not comprehensive enough to cover problem and policy issues relating to the three key participants in the rental housing market i.e. the suppliers, the consumers and the government. It is, therefore, hoped that the present study will make a significant contribution to the existing body of knowledge on the rental housing market of this populous capital

city. Particularly by uncovering the factors responsible for escalating prices of rental accommodation and by prescribing measures to abate this trend and this achieve a more functional, efficient and effective rental housing delivery system in Nigeria.

A further reason for choosing the study area is that the researcher is familiar with the city having previously studied the State Property Development Corporation activities in the city as well as the city's shopping centre developments. Also the researcher has close friends and colleagues at strategic institutions in the city which facilitates data collection. These include banks, Estate Firms, Oyo State Property Development Corporation, the the State Ministry of Finance; the Ministry of Lands and Housing and Nigerian Institute of Social and Economic Research (NISER).

In conclusion, the growth of Ibadan has not been static. The expansion of the city is mostly along the major roads. The factors that are responsible for the existing land use pattern of Ibadan are cumulative needs over the past year. These factors are topographical features in this case hill tops which favours the use of mud.

The convergence in Ibadan city of traditional and modern economic, social and political institution of the classes of people required to maintain these institutions explain much of the character of the city. In Ibadan, the new has failed to swallow up the old, both continued to exist and are strangely juxtaposed, maintaining rather complex relation with each other, and functioning despite each other (Mabogunje et al, 1967). Such a city provides the variety necessary for an empirical study of this type.

Now, the various types of land use in the city of Ibadan have been examined. But their functional interrelationships, especially of other uses, with the residential use cannot be fully comprehended without sheeding light on residential property types and distribution. Hence the need for exposition of various residential properties on the urban landscape and their distribution on same. This is the central point of matters discussed in the next section.

3.4 FACTORS RESPONSIBLE FOR THE PATTERNS OF LAND USE

Land is both a factor of production and a commodity. As a factor of production, it is nearly always required in the production process. The demand for land as a factor of production is derived demand depending upon the demand for the final commodity produced and as a commodity land is used for housing and recreation (Newell, 1977). The ease of acquiring land as a factor of production or commodity plays an important role in the distribution of power, employment, income, prestige and social justice, and this affect the general economic development of the region (Fabiyi, 1982).

Various potential users compete for scarce land. This competitive process is largely responsible for the determination of the use to which the site is put and consequently its value. The existing structure of any urban area at any point in time has been the cumulative needs over the years and are not due to current space requirements. Also, it arose by different requirements for various uses with regards to accessibility and complementarity of the site.

Thus in studying the rental housing market of Ibadan, it is considered necessary to examine the factors that give rise to the present economic state and the pattern of land use. The principal factors are geographical and political. The geographical characteristics of Ibadan (discussed earlier) made the present site of the city a suitable and favourable location for human concentration. The political factor plays a major role in the economic and land use pattern of Ibadan city. In 1893, Ibadan signed a treaty of peace with the British and a Resident was posted to the town. His arrival marked the commencement of the emergence of the city as a major commercial, administrative and educational centre (Ayeni, 1982). The commercial organisation was further strengthened by the extension of railway construction to Ibadan in 1901.

By 1903, various European firms were given leasehold interest in land; under the Native Lands Acquisition proclamation of 1900, in order to settle in the town (Adegoye, 1976). This led to the establishment of a modern business centre and European Residential Reservation Area, to the West of the business district called Commercial and Links respectively. The business distict called Old Gbagi, is the second business centre in the city and was located at the railway station and it houses the largest concentration of business activities in the city, while the first is the traditional business centre called Iba market.

The growth of the city increased in 1946 when Ibadan became the headquarters of the defunct Western Region of Nigeria and this attracted both expatriates and other Yoruba sub-ethnic groups into the civil service and into the ever increasing range of opportuni-

ties in the city. The city also witnessed large scale migration of ethnic groups, which according to 1963 census include such groups as Ibo, Ibibios, Edos, Urhobos, Fulani, Hausa, Igbiras, Efik, Nupes into the twon.

A significant proportion of these migrants found abode among Ibadan people but a considerable number of them were located on laid out New sites such as Mokola, Ekotedeo, Sabo, Oke-Ado, and Oke-Bola. Consequently, with the increase in population more residential areas were needed and the city began to grow mainly outside the city wall.

Other government and private individual actions that have increased the outward expansion of the city in almost all directions since 1973 include the building of Ibadan - Lagos Expressway which goes round the Southern, Eastern and North Eastern parts of the city; the establishment of the housing estate, oil storage depot at Owode on Abeokuta Road; the building of the New Airport and the commissioning of Ajoda New Town on Ife Road; the building of the New Army barracks near Ojoo to the North of the city; the building of Leyland Assembly Plant and Pilkington Factory in Iwo Road; and Wire and Cable Factory at Abeokuta Road (Areola, 1982).

Ayeni (1982) had identified ~~the~~ factors responsible for the present land use pattern of Ibadan. These include:

(i) Topographical features for example the hill tops and slopes that favour the sun dried mud used in traditional building technology.

(ii) Past and present social and religious customs, traditional lineage social structure result in creation of family compounds while the recent development and new developments give rise to separate residential development unit.

(iii) Effective demand and consumers preferences, through the increase in money income and population.

(iv) Policy of Local, State and Federal Government in the supply of public utilities, social services and legislations. For example construction of roads and acquisition: Provision of low density and medium density residential plots and industrial plots.

3.5 TYPES AND PATTERNS OF RESIDENTIAL DEVELOPMENTS IN IBADAN

The focus of this section is on types of residential properties characteristic of the city. Those considered include tenement, flats, and houses. Their distribution within the urban shape is examined and particular attention is paid to pattern of residential developments at the core and sub-urban areas.

Residential properties in Ibadan can be broadly classified into three namely tenements, flats and houses. They constitute the old residential development, the new ones and the incomplete ones in all parts or sections of the city either in planned layouts or in unplanned areas.

3.5.1 Tenements

In Ibadan context, tenements consist of residential structures characterised by the traditional face to face internal space arrangement of rooms symmetrical on a common passage for circulation. They are either rooms of the same size and with no access to another room other than through the door opening onto the passage or a parlour and two rooms with an entrance into one from the parlour

without having to pass through the passage door. Such parlour and rooms usually constitute a wing. In some other cases only rooms of equal size constitute a wing. Tenements are usually on one or two floors although it is not uncommon to have some on three floors.

All walls, external and internal, are load bearing and are built of mud, mud block or sandscrete block, some plastered and rendered and painted. The roofs are corrugated iron sheet on timber truss and construction is done by local brick layers and carpenters most of whom do not lend from the modern construction techniques. Old properties do not have plans and the new ones that have are designed by the less informed and the less initiated in architecture who are draughtsmen or semi-draughtsmen. All services provided are jointly used by the occupants. Most of the tenements are old and dilapidated while some are new-recently developed - but functionally and economically obsolete.

This class of accomodation is found in both medium and high density residential areas but with the larger concentration in the high density zones. They dominate residential properties set in the older low quality and degenerating districts comprising the city core and older suburbs. Even most redevelopment undertaken in these areas are still tenements but built of better building materials and characterised of modified design of elements such as windows and doors in terms of height and width. They are mostly found on the Ibadan Municipal Authority Estates prominent of which are the following layouts: Oke-Ado, Old Cemetry, Salvation Army Road, Mokola and Liberty. Other city areas in which this type of accomodation is typical include Toko, Oluyoro, Oranyan,

Kudeti, Molete, Agodi, Oremeji, Oke-Bola as well as the city outskirts such as Odo-Ona, Apata Ganga, Moor Plantation, Agbowo, Bashorun, etc. However, they are completely non-existing in special layouts such as New Bodija Estate, Oluyole Estate, Iyanganku, etc.

Tenements have made a nonsense of physical development for their developers seem to understand residential development only in the context of building structures uncomplemented by such infrastructural developments such as roads, sewers, drainage and plumbing facilities (water mains) which actually make such structures functional. The haphazard development has greatly injured circulation, comfort, aesthetic, pleasure and convenience of living in those parts of Ibadan. Access roads are so narrow that they fail to provide the intended access to motor car and refuse collection lorries and by failing to perform its function restricted the use of the tenements to the indigeneous population and the early non - Ibadan Yoruba immigrants such as the Ijebus, Egbas, Ijeshas, Oyos, Ekitis and Ondos.

The common features include highest housing and population densities in the city with an average of five persons per room. The increasing housing density is largely attributable to the growth by "fission". This "fission" is a direct product of extended family system whereby the polygamous families are breaking up and the family house, tenement, equally breaking into a number of separate housing units. This physical assault on the compound gave birth to more intensive but unplanned residential development manifesting in concentration of new tenements on every

available space within and around the compound. The associated features are closely-packed and jumbled nature of numerous tenements os found in places such as Gbagi, Agbeni, Amunigun, Aremo, Agbojoko, etc.

Tenements give an indication of static nature of user requirements as manifested in the development and redevelopment in the high density areas. But tenements in the medium density tend to show otherwise as most of the development, redevelopment, improvement and alterations are in favour of tenements which pattern after flats, that is, a parlour and two rooms constituting a wing and exclusively used and occupied by a tenant.

3.5.2 Flats

A flat can be defined as a self-contained dwelling on one floor. It is usually made up of a living room, dining room (combined or separate, Kitchen, toilet and bathroom but without an outdoor. In other words, each door to a flat opens into a common part and only one outdoor services all flats in a block. Common parts usually include entrance hall and stairways. In Ibadan, some flats are purposely built while some are converted. Garages and Boys Quarters are provided with some flats. The structure of some flats are columns and beams and the non-load bearing walls made of sandscrete blocks while walls of some flats made of sandscrete blocks are load bearing. Tenements converted to flats are all without Boys' Quarters and seldom have garages and adequate kitchen space. Infact garages are usually improvised and separated from the building. A block may consist of four to six flats.

Although, flats are found in all residential densities, their numbers or concentration vary and the highest concentration is found in the medium desnity areas. They dominate residential properties in Bodija Estate. Onireke, Ring Road, Challenge, Kongi, new Agbowo, etc. In short, they are mostly concentrated in the newer, medium density residential districts comprising the newer eastern and western suburbs as well as post western suburbs as well as post 1952 suburbs. Flats range from 2 bedroom to 5 bedroom type.

3.5.3 Houses

Houses are structures providing accomodation including ground floor accomodation, usually having individual outdoor space associated with them and do not have other dwellings above or below them (Keeble, 1961). They could be one or more floors. This definition covers such residential properties as mansion, bungalows, detached houses and terrace houses (on split level).

They are found in all residential densities but constitute the dominant residential properties in the low density areas, that is, prominent layouts. Bungalows and mansions which are owner-occupied are found in relatively insignificant proportion in the high density areas. They were developed by the natives who by virtue of their social ties or responsibility emanating in their chieftaincy, religious leadership or political weight coupled with their wealth have decided to stay with their people in the high density areas. Bungalows and semi-detached duplexes are both dotted singly and in small groups (constituting an

estate of some rich men) in the medium density areas.

However, houses are well set in the low density areas and this is not unconnected with their historical development. Historically, in Ibadan, houses have their development as a means of providing accomodation for special type of immigrants into the city namely the colonial administrators who exclusively occupy them up to 1952. Since then there has been an influx of Nigerians of similar status due to political changes in that year (Mabogunje, 1962). The succeeding tenants initially possessed political status but later developed and extended to including businessmen, professionals and top civil servants.

3.5.4. Pattern of Residential Development

3.5.4.1 City Core

In as much as it is difficult to find conditions to be exactly the same there are broad spectra of similarity which could form a common basis for the pattern of development in the core section. What actually takes place is not development of virgin land (for even the available open spaces have been filled up) but redevelopment of dilapidated structures.

Against general expectations that redevelopment will take cognisance of modern standards and functions, the departure from old internal space arrangements and functions is insignificant where it exists at all. Some still use mud for wall and toilets are still absent. This perpetuation of functional obsolescence is not unconnected with the estate background of the core area.

Estate background is mainly concerned with the sets of factors -- internal and external and having both time and space

dimensions influencing individual residential estate. The historic setting of the city core viewed from the framework of ownership structure and estate layout has singificantly restricted redevelopment to old buildings. The main features of the setting include the street layouts, building lots and infrastructural services which have come down from the past and which are now in many cases unsuited to the new demands and type of buildings that technological advances have now made possible.

During the field survey, it was found that so many people erecting structures at the sub-urban area would have loved to stay with their people in the core and improve their lots through better housing but the historic setting would not. The street system does not permit the required traffic flow and the access roads where they exist are not wide enough for use by cars. The plot size for redevelopment is so small that it will never meet the required size layout for a redevelopment. In effect, it is no use incorporating a garage in a plan and even if as much as 75% of the lot size is redeveloped (which of course, will be violating planning regulation) the 75% space is just too small for a worthy redevelopment.

The operation of some functions or activity spaces within a residence depends on the available infrastructural services such as water, sewer lines, etc. The layout of the core area while incorporating water mains (although many would be dry with much demand) does not include sewer lines or drainage pipes. One would have suggested the use of cesspool or septic tank but the street system as aforementioned will not permit dislodging as they afford

no access to public authority (local government) vehicles meant is the refuse disposal problem whereby refuse collection lorries have no access to some refuse dumping spots.

The resultant effect of the above condition is the exodus and inevitable mobility of modern residential development to the suburbs while those who are ignorant or less conscious of modern housing need redevelop within the core following, with little improvement, the path of the old. Thus with a few significant exceptions, residential development within the city core are highly constrained by the estate background hence the perpetration of functionally obsolete buildings which would suggest ignorance of technological advancement in architecture and static housing comfort or functional requirements.

3.5.4.2 Sub-Urban Areas

Residential developments are being carried out at the suburbs by both public agencies and individuals. The residential estates developed by public authorities such as Property Development Corporation of Oyo State (PDCOS), Ibadan Muncipal Planning Authority (IMPA), etc. are well laid out and a uniform policy governs the pattern of development. Despite the fact that certain basic services such as water are in short supply as the case is with water supply for Owode Estate, the vesting in the PDCOS of ownership and control has not permitted the erection of functionally obsolete buildings.

In essence, even though certain infrastructures inevitable to proper and full operation of residential properties are lacking, development proceeds in a controlled manner in anticipation of

eventual benefits to be derived when infrastructural development is fully undertaken. But one has to comment at this junction that residential development is implicitly seen as more of erection of structures than a co-ordination of infrastructural development and building construction.

On the side of individual developers, either for owner-occupation or for letting. Where their plots fall outside the prominent layouts of some public agencies, the situation is worse. The layout is usually done by non-experts such as draughtsmen and unfortunately such layouts are always approved by the Planning Authority. Common characteristics of such layouts are:

(1) Only one type of plot size and is usually 60' x 100' or 50' 100'.

(2) Lack of infrastructural development of any kind including electricity and water.

(3) Lack of policy governing development on each plot.

The above features of such layouts which are usually small in size to pass for a neighbourhood coupled with the methof of sale of residential plots have resulted in various residential properties which cannot attract any particular character. Some buildings which are functionally obsolete reside side by side with modern buildings. In most cases as much as 70% of the plot area is developed.

Those mushroom estates have so distorted the city's landscape that it becomes difficult to describe the shape. They have constituted themselves into urban sprawls and potential avenues for public fund in any programme of infrastructural development.

Housing in these estates simply means erection of buildings just like the civilian Federal Government Low Cost housing estates. Thus sub-urban residential developments which are supposed to meet the contemporary standards are in most cases substandard and constitute potential slums.

Although the Local Planning Authorities have the responsibility for preparation and execution of planning schemes and control of land-use development in their areas of jurisdiction, residential developers on lands that fall within such areas seldom obtain official approval for all their development proposals. In an attempt to bring supply to satisfy demand, the peripheries on all sides of the city sprawl with new construction of residential buildings that are substandard in design, structure, quality and minimum standards stipulated in the building bye-laws.

The ineffectiveness of each Local Planning Authority to control development derives from the management organisation of the physical planning unit. All developments are supposed to be "teleguided" from the Ibadan Metropolitan Planning Authority's Central Office at Ring Road (now Ibrahim Babangida Road). This is a manifestation of poor organisational structure which does not recognise Decentralisation of power and control to go along with delegation of responsibility. Since the time taken for approval is so long, many developers do not bother to undergo the rigours and as a result majority of new developments are never known by the Authority Staff until they are completed. They will therefore rapidly degenerate into slums at tender ages.

3.6 FACTORS INFLUENCING RESIDENTIAL LOCATION DECISIONS IN IBADAN

Those factors discussed here include: location, property, neighbourhood, social factor, legal factor and economic factor.

Location

The relationship between residential sites and other points on the urban landscape plays a significant role in the distribution of property values. This is noticeable with regard to medium residential fdensity areas.

Bodija residential estate is sited in such a way that anchor house owners and tenants are easily drawn from high income workers at Secretariat, University of Ibadan and the Polytechnic. These centres of administration and education which provide stable and secure income for their workers are so proximate to the residential site. This coupled with linkage system - the secondary distributor - offers something near an ideal residential location.

This locational juxtaposition is so beneficial that it has resulted in effecting a pull on skilled workers whose housing requirements are met. The educational policy in particular has provided more consumers of residential estate products in this estate since the increasing staff requirement and employment have not been correspondingly matched by expanding staff quarters. This is partially due to state of university funding and the time consumed in the production of real estate product.

Furthermore, nearness to industries, commercial centres and some important establishments like Radio O-Y-O, Television Authority, etc. provide viable and fertile sites for residential estate. The realisation of this is not unconnected with the common feature of the

prominent layouts having as their components some plots earmarked for residential, industrial, commercial and public uses. For example, Owode Housing Estate along Abeokuta road is contiguous to an industrial estate, Olubadan Estate along Ife Road is both residential and industrial and close to it is new Gbagi Market, Oluyole extension along Lagos road is surrounded by the standard Breweries, Sanyo Premises and the High Court. Although one is proned to be biased in judging the relevance of the spatial proximity of this pair of uses - residential and industrial one should remark here that these industries are not noxious hence not inimical to the operations of one or both uses.

Property

Property types requirements of tenants vary with their income and expenditure pattern.

Apart from the prominent layouts which aportion plots to high medium and low residential density based ontheir feasibility estimates, individual developers have taken little or no consideration of property type requirements of potential tenants. This is to say that consideration for density zoning is not part of urban land use. This has led to over supply of certain types of residential properties and undersupply of some others. Moreover individual developers are often unmindful of their development in terms of supplying real estate products required by potential tenants. The primary aim in most cases is usually owner-occupation and designs are tailored towards satisfying individual taste as opposed to market taste. The survey carried out showed that letting include among others the filling up of surplus accommodation pending the time a family will expand to occupy the whole residential premises. Mobility labour often account for some others.

Lack of investment objective in residential property manifests itself in owner occupation aim. This has often guided the planning and execution of residential projects by individuals without adequate if at all any, attention paid to local demand, actual or potential.

Neighbourhood

Neighbourhood signifies a residential quarter which exhibits a degree of uniformity as to type and age of building. Here comes the role played by anchor tenants, that is, those initial tenants who by virtue of possessing certain qualities are able to attract like tenants and hence define the market for particular residential properties.

Neighbourhood concept becomes especially important to those in the high income brackets. For instance, those tenants (respondents) at Iyanganku GRA preferred the location firstly because of prestige and goodwill bestowed on them by virtue of residing in the neighbourhood. This is because it is instinctively assumed that residents in this neighbourhood are successful businessmen, professionals and top civil servants among others who have got sufficient reputation to guarantee business transaction or seek professional advice.

Moreover, it is worth mentioning that the societal prestige attached to GRA is historical. The Iyanganku GRA was formerly occupied by the colonial administrators. This was followed by political successors and judges. But today it is turning to a neighbourhood for millionaires, potential or actual political heavyweights and other very important personalities in the city.

Neighbourhood can also be viewed in terms of socio-economic compatibility and complimentarity. Such locational juxtaposition of

societal equals produces a kind of symbiotic relationship relationship manifesting in business promotion, status building and personality cult. The non-existence of such antipathetic settlement is noted especially among the prominent layouts such as Bodija, Oluyole, etc. Such conglomeration has been enhanced by the planning and layouts of such estates.

Therefore, as opposed to Alonso's theory the land and property value in these prominent estates do not follow the general gradient. This is in accordance with the observation of sStone that "the steadiness of the fall is disrupted by the distribution of areas with special attractions as residential locations".

Social Factor

Rents passing on residential properties on Ibadan Municipal Government layouts and those held by the natives within the urban core are the most affected by cultural compatibility. A survey or the urban core carried out by the author shows that tenants using residential properties in this area are those who share common cultural background. Most of the tenants are Yoruba speaking people from Ogun State, Ondo State and other parts of Oyo State. These people are actually not new migrants but have settled in the city for long. They tend to constitute tenants for some redeveloped residential property because of increase in size. Notably among these tenants are the Ijebus who prefer to reside at Oke-Ado among their Kith and kins. These tenants are not in the high income brackets but mainly artisans, labourers, primary school teachers, etc. who have just been drawn to urban centre. They are used to witnessing traditional festivals which sometimes look strange and intelligible to the Hausas, the Ibos, the Bendelites, etc. While the Yorubas enjoy living among people of same cultural background and common history, others such as the Hausas, Ibos and

Bendelites love to reside in the former or new sub-urban residential properties where the cultural mix is favourable. Such properties are found in places like Sango, Ago Tailor, Agbowo, Odo-Ona, Apata Ganga, Mokola, etc. However, the impact of this cultural compatibility does not favour the urban core since the market for residential properties is quite limited to the yoruba migrants. It is observed that the rate of absorption is very low for redeveloped properties and would have continued to assume that trend but for the eradiction of boarding facilities in secondary schools. On the other hand, the rate of absorption in the suburb is very high, a positive effect of cultural mix and ability to captive immigrants from any part of the country.

Legal Factor

Statutory provisions such as Town and Country Planning Laws, Bye-Laws of Local Authorities, Decrees and Edicts are effective instruments for stimulating the user of property as well as pegging down values of properties. In this regard the Residential (Accommodation Rent Control) Edict of 1977 christened Rent Control (Zoning, Classification of Residential Accommodation and Fixing of Maximum Rent) Order 1977 as decreed by the then Military Governor fixed the maximum annual rents payable in respect of each type of residential accommodation.

The rent edict is of course a manifestation of lack of sound advice by the professionals involved. In the first instance, rents are pegged on all types of residential properties wherever they are on the urban landscape. On the other hand, rent edicts are not supposed to last for long without review or total revocation. Although the time lapse has rendered the provision of the edict unrealistic, and inapplicable many landlords based current rent passing on the

controlled rents of 1977. The difference, however, is just the result of the passage of time, that is, the appreciative power of residential properties in the face of inadequate supply.

Economic Factors

The Principal factor s which influence the rental values of residential properties are demand and supply. In the recent time demand for tenement has by far exceeded supply. The demand does not arise from or attributable to improved economic climate stems from educational policy which made nution free, cancelled boarding, increase number of schools - consequently increasing the population of pupils and teachers looking for accommodation.

3.7 TRENDS IN RENTAL VALUES OF RESIDENTIAL PROPERTIES IN IBADAN

3.7.1 The Decade of the Seventies

The decade of the seventies was characterised by the end of the Nigerian civil war, the oil boom and its inherent effects, a revolutionary governmental housing policy, the Rent Control Edict and the controversial Land Use Decree No. 6 of 1978. The begining of the decade marked the end of the Nigerian Civil War (1966 - 1970). The exodus of the Ibo speaking people to the East and the civil war had suspended and paralysed most economic activities including property investment. Demand for and rental values of property fell and the government applied economic restrictions to reduce domestic consumption and conserve the country's foreign exchange, which were needed for the war effort. At the end of the war, the government made a "No victor, No vanguished" declaration and embarked on a programme of reconciliation, reconstruction and rehabilitation. This gave a boost to the property market. The Ibos who left during the war,

returned to Ibadan and there was also an incursion of foreign nationals, most notably the Indians, Lebanese and the Ghanaians, which further put pressure on the demand for accommodation. These people except the Ghanaians also invested in real property, mostly as contractor financiers.

The oil boom of the 1970's also contributed to the rise in rental values. Money was pumped into the economy and a massive Housing policy never before seen in Black Africa was adopted by the Military Regime. The Federal Housing Authority was set up in 1971 to implement this programme. 60,000 housing units were to be built all over the country during the Third Plan Period (1975 - 1980) with Ibadan getting a share of 8,000 units. The Obasanjo regime in 1976 increased it to 202,000 housing units with Ibadan having 28,000 units. Needless to say the programme was not successful as only 13% of the projected number of housing units would be constructed. However, this euphoria was shortlived with massive importation and the government investments in very large scale projects, which have now become "white-elephants, our foreign reserves dwindled; the country became reliant on imported commodities; agriculture - formerly the main stay of the economy was neglected and the Naira which was introduced in the e arly 70's as the medium of exchange was grossly overvalued. Our external reserves fell drastically, inflation rate skyrocketed compounded by the Udoji Award.

Towards the end of the decade, between 1977 and 1978, oil price fluctuations led Nigeria into borrowing from the International Capital Market. This was the genesis of the high foreign debt problem of the country.

This period also saw a growth in uncontrolled residential developments in areas like Mokola, Sango, Eleyele, Oke-Ado, Molete

which were hitherto undeveloped. The Government Secretariat and growth of Dugbe commercial area and Oluyole industrial area also contributed to the development of these areas to serve those working in Oluyole.

In a bid to control these excesses, the Federal Government imposed restrictions on importation, enforced the Indigenization Decree, and introduced the Rent Control Edict.

In 1976, the Oyo State Rent Control Edict was promulgated. It fixed maximum rental values for unfurnished residential properties only, which was below the existing market value. It did not succeed in reducing rental values as Landlords found many ways of circumventing it. Demand for accommodation was still very high, and the government could not provide a corresponding supply of housing units.

The Land Use Decree 1978 vested the freehold ownership of land in the State Governors to be held in trust on behalf of all Nigerians. It granted government the power to revoke rights of occupancy on bareland without compensation and banned the sale of land by private treaty which has led to landowners undertaking clandestine sales of land through cumbersome means and at high prices. There has, however, been violent resistance to acquisition and the government has had difficulty meeting the needs of the applicants for land. This has further encouraged private sales of land at high costs.

All these have had the effect of reducing the supply of housing, and encouraged the growth of illegal developments on "bare sites" which have now developed into slum areas.

3.7. 2 Pre-Structural Adjustment Programme Era

This decade started of with the second global oil crisis which pushed crude oil prices as high as ₦40.00 per barrel. The then

newly established civilian government was however, involved in gross fiscal indiscipline. So when oil prices began to fall in 1981, our external reseerves dropped. Due to plenty of money in circulation, rental values were increasing between 1980 and 1982. For example, in Iyaganku GRA, bungalows of 4 to 5 bedrooms were going for ₦4,000 in 1980, ₦6,000 in 1982, although a three bedroom flat remained stable at ₦3,000 p.a. during the same period. In zone 2, Bodija Estate remained fairly stable at ₦3,000.00p.a. for a 3-bedroom flat between these periods. Zone 3, Idi Ape remained fairly stable, while rents in Kongi increased slightly from ₦5,000.00 in 1980 to ₦7,000.00p.a. for duplex in 1981 and remained so for 1982. All other Zones had fairly stable rents during this period for residential properties.

3.7.3 The Structural Adjustment Programme Era

In July 1986, Nigeria officially adopted a macro-economic policy reform programme known as the Structural Adjustment Programme (SAP). The policy reform was introduced into the country as a means of solving the economic depression that has plagued the nation during the past years. Significant among these problems are the high foreign debt and balance of trade deficit, stagnating or declining domestic products, substantial decline in Nigeria's foreign exchange earnings arising from the collapse of the world oil market; high rates of domestic inflation, an over-value Nigerian currency; and overdependence on oil export and imports of essential commodities. SAP was therefore embarked upon by the Nigerian government with the primary objective of revamping the economy through diversification of productive base in order to reduce its dependence on oil. As a means of promoting the economic growth and stability of the nation, SAP was designed

to restructure the productive base of the economy by reducing Nigeria's dependence on petroleum export as the main source of government revenue and foreign exchange earnings. The above stated objectives were to be achieved largely through increases in agricultural production in order to provide enough food for domestic needs, raw materials for domestic industries and export of agricultural products to generate foreign exchange earnings. Some of the measures which have been designed under SAP to attain these objectives include trade liberalization, deregulation of the naira exchange rate (in order to improve the price incentive to farmers); scrapping of the commodity boards which had hitherto regulated and dictated producer prices for various crops; and the removal of some input subsidies from the economy.

Also included as part of the policy measures are the privatisation and commercialization of government parastatals and the establishment of the Directorate of Foods, Roads and Rural Infrastructure DFRRI) to work closely with the State governments in the provision of rural roads, rural water supplies and other communities throughout the country. DFRRI is also expected to promote and improve the production of selected food crops, livestock and fisheries while another agency the National Directorate of Employment (NDE) was established to enhance employment opportunities.

The impact of SAP was not strongly felt in the housing market until 1988. Appendix 9 shows that between 1986 and 1987, rental values increased by a fairly wide margin. A bungalow of 4 to 5 bedrooms in Idi Ape went up from ₦6,000.00 in 1986 to ₦8,000.00p.a. in 1987; in Iyaganku from ₦12,000.00p.a. to ₦14,000.00p.a. A detached maisonette in Iyaganku GRA also went up from ₦13,000.00 to ₦15,000.00, in Ring Road from ₦9,000.00 to ₦10,000.00 and so on.

Increases were also recorded for tenement abuildings in the other zones.

1988, however, saw a drastic change in property rental values. Rents rose sharply and astronomically. This drastic change took effect in almost all the zones. This was brought about by the drastic change that first occured in zones 1 and 2. This made a lot of people to migrate from these two zones to other zones and by 1989, the spiralling rent effect was also being greatly felt in these latter zones.

These drastic changes came about as a result of a combination of forces all attributable to SAP. First, the devaluation of the Naira had serious effect on the property market. As majority of building materials or their components were imported, the devaluation of the Naira led to massive increase in the prices of building materials. Even those which were locally sourced were made with imported machinery for which the cost of spare parts had also drastically increased.

3.8 RESIDENTIAL PROPERTY MAINTENANCE CULTURE IN IBADAN

It is considered imperative to briefly examine the maintenance culture of residential properties in the city of Ibadan. Because of the present economic situation, public media claimed many rental property owners are concerned that operating expenses are increasing faster than their rental incomes. However, the situation at Ibadan city does not support this assertion. If we take a general look at the residential properties in Ibadan, there appears to be lack of adequate maintenance. This is evident in gross neglect of public buildings, private buildings and other infrastructural developments. People have wondered: if there is a maintenance culture

why should this number of public and private residential properties fall into such a deplorable state of disrepair?

A drive around Ibadan metropolis will indicate that most of the buildings are cracking, the paintings are fading, the services to most of these buildings are inadequate while roads to these residential houses are impossible.

The above situation is an handicap to the efforts of a property manager and it is no doubt that there is the need for our people to develop a good property maintenance culture especially in a capital state like Ibadan if we care about the economic, physical and functional life of these properties.

Before we end this chapter, it is considered necessary to talk briefly about issues in rent review and the landlord tenant stalemate in Ibadan. In Ibadan, not all residential buildings are under the management of estate firms. The fact is that countless number of these buildings are "managed" by the landlords themselves or the appointed caretakers. In those of the latter, rent is fixed by the landlords themselves or the appointed caretakers. In those of the former, landlords fix and review rents via the property manager (estate firm). Rent is usually reviewed by the landlord or via the estate firm for various reasons; for example:

(i) If the landlord has carried out some capital improvements on the house; if he has improved the standard of services.

(ii) If the present economic climate in the country necessitates rent increase.

The incessant rent reviews by landlords has always generated heat argument between the landlords, managing firms and the tenants frequently.

While the landlord feels for a number of reasons he can review rents, the tenants have hit back claiming such rent review is illegal, arbitrary, and in contrast to the covenants in the tenancy agreement which treated any form of rent increase without a proper justification as unreasonable and unlawful.

Tenants often kick against such rent increase especially when it is not justified by a commensurate improvement of the house in terms of services, maintenance and general standards. This has led to many court cases when landlord eventually asked an aggrieved tenant to quit the house of he/she cannot comply accordingly.

3.9 SUMMARY OF CHAPTER

In this chapter, an attempt has been made to focuss on the case study - Ibadan, the capital of Oyo State and its residential sub-markets. Issues examined here include the historical and geographical background of the city, the land use patterns, the types and patterns of residential development and the trends in rental values. With respect to the trends in rental levels, three phases were considered viz: the oil boom era, the Pre-Structural Adjustment period and the Structural Adjustment Period. Also examined are the factors influencing rental levels in the residential zones, that is location property attributes, the neighbourhood, social factors, legal factors and economic factors. The remaining portion of the chapter focusses on residential property maintenance culture in Ibadan and issues in rent reviews and the landlord - tenant stalemate where landlords or property owners personally manage tenanted properties.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 INTRODUCTION

In Chapter two, an attempt was made to lay a theoretical foundation for this study through a multidisciplinary review of the pertinent literature. In this chapter our focuss will be on the methodology that will be utilised to accomplish the research objectives specified in chapter one.

It will be recalled that in the conceptual framework, we highlighted some factors responsible for escalating rental levels. The structural relationships expected, given the theoretical discussions of each of the pertinent factors were discussed. There is the need to proceed further to make the conceptual framework amenable to empirical investigation by testing the hypotheses already formulated. Before this is done, however, it is imperative that we operationalize the theoretical relationships in a manner that are amenable to both meaningful measurement and statistical manipulation. This will be done in this chapter. Also, we will examine the procedure for collecting data for this study and the data anlytical techniques.

As various methods of data collection are available to the researcher, we will begin our discussion here with the identification of the method and justification of the method of data collection utilised.

4.2 METHODS OF DATA COLLECTION

At the conception stage of this study, three alternative methods data collection were considered viz: telephone interview, of postal questionnaire and household questionnaire survey. The telephone option was not adopted because of scarcity and lack of constant operation of telephone in the country. The postal option was also jettisoned because:

(i) information obtained through the postal system may be limited;

(ii) ambiguous answers which cannot be easily classified may be given thus limiting the number of answers given;

(iii) important questions may be either deliberately or mistakenly omitted;

(iv) once questions have been dispatched it may be difficult to amend difficult or ambiguous questions;

(v) there is always the problem of low rate of return; and

(vi) in Nigeria in particular, the inefficient postal system is an important objection to this method of interview.

In the light of the above, a household questionnaire survey was opted for. This choice was influenced by the following advantages of this mode of data collection:

(i) The researcher is more flexible and has more opportunity to convince an unwilling respondent;

(ii) It enhances the collection of more and precise information and

(iii) The sample control can be made more effective because the interviewer will know when calls and

visits are necessary; and

(iv) the reaction of respondents can be observed in addition to recording vital answers that may be given orally.

In the light of the above, a household questionnaire survey was conducted in residential districts of Ibadan with the assistance of trained survey assistants. In the process of administering the questionnaires, three principal techniques of data collection were used. These are: The stratified sampling technique, the random sampling technique and the systematic sampling procedure.

4.3 SAMPLING PROCEDURE

The first step in obtaining our sample was to define the population of interest from which a sample could be drawn and to assemble a data bank for the sample selected.

4.3.1 Stratified Sampling Technique: Selection of Residential Districts

The historical trends and the morphological set up of Ibadan showed that three broad residential districts are clearly identifiable. These are the traditional core area, the transitional area and the government plus other public and private estates. These three residential districts are quite distinct from one another when considered together but there is an element of homegeneity within each district when considered in isolation in certain respect. Such elements of homogeneity exhibited by the various residential districts include population density, housing density, housing structure/design, housing quality, socio-economic attributes of the inhabitants, rental price levels and the general neighbourhood con-

ditions (Mabogunje, 1968; Okediji and Aboyade, 1967; Onibokun, 1970).

The traditional core residential areas are generally of low housing quality, high housing and population densities; while the transitional residential districts are of middle quality, medium housing and population densities; and the new and government residential layouts are of high residential quality, low housing and population densities (Ayeni, 1982, Abumere, 1982). The districts coincide with with where the low, middle and high socio-economic people live within the city respectively.

The implications of the above for the study as regards data collection were three folds:

(i) that the city has already been stratified.

(ii) it guides the choice of sample size

(iii) it supports the types of sampling techniques utilised.

The three residential districts identified above were therefore used as the major residential districts in Ibadan from which the following areas were chosen:

(a) High density residential district: Mapo, Agbeni Inalende, Agbokojo, Oke Are, Adeoyo, Salvation Army, Dugbe Alawo.

(b) Medium density residential district: Oke Ado, Liberty Stadium, Ring Road, Molete, Oke Bola.

(c) Low density residential area: Bodija.

The boundaries of each residential district were delineated by using man made features such as roads and other natural features such as streams.

The stratified sampling technique was also used to subdivide the areas chosen within each residential district into grid squares. This made it possible to determine the number of squares actually selected for the survey in each residential district. The squares were chosen in a way that will be proportional to the total area delineated for each residential district. The grid square system was used to cover the Ibadan base map (street guide) of scale 1:20,000 (1cm on the map to 200m on the ground).

Each square will measure, 1cm x 1cm and have an area of 40,000 square metres. The squares were numbered and will reflect the various sizes of the residential districts, the number of squares covered were: 23 squares in the high density residential districts (Mapo, Agbeni, Inalende, Sango, Adeoyo, Salvation Army, Dugbe 23 squares in the medium density residential area and (Oke Bola, Oke Ado, Liberty, Stadium, Idi-Ape, Molete) 13 squares in the low residential district (Bodija).

4.3.2 Random Sampling Technique

The first step was to determine the sample size to be selected. A sample size of about 10 percent (of the area covered by each residential district) was chosen. Therefore, 3 squares each were selected in the high and medium density residential districts and 1 square from Bodija. The squares were selected randomly by using a Table of random numbers. Shows the squares selected and the corresponding wards within the area delineated for each residential district.

4.3.3 Systematic Sampling Technique

The systematic sampling technique was used to choose the dwelling units where the questionnaires will be administered on households. The selection of dwelling units was carried out using a sample fraction of 1 to 10 (1/10). Based on the pilot survey carried out by the author the expected number of dwelling units and households to be sampled in each residential district were as follows, 40 dwelling units comprising about 180 households, an average of 4.5 households per dwelling unit in the high density residential district.

45 dwelling units of about 165 households an average of 3.7 households per dwelling unit in the medium density residential district; and about 40 dwelling units inhabited by about 50 households, an average of 1 household per dwelling unit in the low density residential area.

The higher percentages of the actual dwelling units sampled to the expected and the generally lower percentages of the actual households sampled to the expected can be accounted for by two factors.

The first is related to the assumption of a higher number of households per dwelling unit for residential districts as shown by the reconnaisance survey (4.5 and 3.7 for high and medium density residential districts) as against a very low average number of households per dwelling unit in each residential district. Secondly, during the interview, it was discovered that fewer number of households than the actual number living in most dwelling units were met for interview. Therefore, as a way of meeting the

expected sample population to be sampled were increased but failed to give a corresponding increase in the number of households sampled.

Altogether, 321 questionnaires were administered out of which 300 were properly completed. This number constitutes about 76 per cent of the expected households to be sampled which is reasonably high and satisfactory. The respondents among the households were supposed to be knowledgable enough about the living conditions of the family; therefore the most preferred subject was the household head. Household heads were perceived.

Household heads were perceived as being the most active decision makers within the family in influencing residential change. But in the absence of the household head, the questionnaire could be administered on any other knowledgeable member of the household.

4.4 DATA COLLECTION PROBLEMS

With respect to secondary sources of data, one common limitation of data collection is that this source limit the amount and type of information that could have otherwise been obtained from. To mitigate this problem, oral interviews offer written records during the survey.

Another problem faced during the period of data collection was seeming unpreparedness or lack of knowledge of some illiterate respondents to answer some questions. This problem was, however, resolved through the use of proxies e.g. the son of the household head or the translation of certain technical aspects of the questionnaire to vernacular. It is noteworthy, however, that property managers cooperated with the researcher.

Inspite of the above few problems, the research is operationally manageable and consistent with time and financial resources available

for the study. The information analyzed is considered reliable enough to make the achievement of research objectives possible.

4.5 DATA ANALYTICAL TECHNIQUES

The data for this study was analysed with the aid of descriptive statistics with respect to data connected with the socio-economic characteristics of rental households and selected property management firms in the case study. In other words, objectives 1 and 4 were achieved through the use of descriptive statistical analysis (frequency/percentage distribution). Inferential statistical techniques (correlation and Regression analyses) were used in examining the relationships. The results were supplemented by some sketches of explanation such as the qualitative differentiation among the residential sub-markets.

4.5.1 Choice of Techniques and Justification

Some studies stop with tabulation and cross tabulation. Many involve additional analyses, though, particularly the search for statistical significance. A recurring problem in this search is the determination of the appropriate statistical procedure. Churchill (1979) identified the basic considerations involved in the choice of appropriate technique to depend on:

(1) the type of data

(2) the research design, and

(3) the assumptions underlying the choice statistic and its related consideration, the power of the test. These are not necessarily independent considerations. They are intimately related characteristics in that, for example, the most powerful statistical test that one can apply is a direct function of the scale quality of data.

The most important question that needs to be answered in preparing to run the maze of statistical methods is to decide whether the problem

is of univariate, bivariate or multivariate nature. The problem is univariate if there is a single measurement of each of the n sample objects, or if there are several measurement of each of the n observations, but each variable is to be analyzed in isolation. In a bivariate problem, there are two measures of each observation and in a multivariate there are more than two measures of each observation and the variables are to be analyzed simultaneously. Given that there are multiple measures per sample observation, we find ourselves dealing with two distinct emphases: the search for differences and the investigation of association.

The analytical techniques used in this study are selected for strength and ease of communicating the results. Instead of an all purpose technique, there are really many possible techniques that could be employed in the course of research. As noted earlier, the appropriateness or otherwise of a particular technique is a function of the nature of the problem.

In analysing data collected, both descriptive and statistical techniques were employed. Frequency and percentage distribution tables were employed in analysing data that were connected with rental properties and socio-economic characteristics of property owners and tenants as well as the formal consumer housing agents professionally called estate surveyors and valuers.

In short, the analytical techniques used in this study are as follows:

(i) Frequency Distributions with descriptive statistics;

(ii) Non parametric Approach;

(iii) Bivariate and Multivariate Analysis.

These techniques were the most appropriate for the nature of data for the study and the orientation of the research. Each of these

techniques and the context in which they are used are considered below.

4.5.2 Frequency Distributions

The first task of data analysis is to determine the basic distributional characteristics of each of the variables to be used in the subsequent statistical analysis.

Information on the distribution, variability and central tendencies of some of the variables in this study is obtained through various summary statistics and the construction of frequency distribution tables.

4.5.3 Non Parametric Approach

Non parametric tests are particularly useful for the analysis of normal data which may not be numerically precise but may rather represent some ordinal or subjective ranking of data to be analysed.

The problem of subjective ranking would involve the use of Kendall Coefficient of Concordance (w) for "ranking or order tests" (Siegel, 1956).

The Kendall Coefficient of Concordance (W) is an expression of the degree of association among a given K number of variables or judges in a panel. It is particularly useful in studies involving opinions or subjective ranking. W has the advantage of being easy to compute and provides a single measure of agreement among several variebles or opinions expressed as ranking. This will be used in this study to show the agreement among property owners in their ranking of the importance of factors influencing their choice of

potential tenants for vacant accomodation. The details of the analysis will be demonstrated in Chapter Seven.

4.5.4 Bivariate and Multivariate Statistical Techniques

Essentially all scientific investigations are concerned with understanding and explaining observable phenomena. In the search for explanations of these phenomena, one is frequently faced with modelling relationships among several variables. Relationships can often be formulated in terms of a linear model.

In many situations, more general models are required indicating "how" and "to what extent" a response variable is related to a set of independent variables. For example, a land economist may be interested in the relationship between "demand for housing" and "disposable income", (b) a market researcher may be interested in the relationship between "sales" and the variables "price" and "amount spent on advertising" or (c) a chemical engineer may be interested in the relationship between the "concentration of a reactant" and the variables "reaction time" and "temperature".

It is difficult to define multivariate analysis (Kendall, 1957). Broadly speaking, it includes those statistical techniques which are concerned with analyzing multiple measurements that have been made on a number of individuals (Cooley, 1962). In short, any simultaneous analysis of more than two variables will be part of multivariate analysis.

There exist as many or more methods in multivariate analysis as there are in both univariate and bivariate analyses. In addition, multivariate analysis possesses four distinct advantages over bivariate analysis. They are:

(i) economy in data collection;

(ii) consistency of statistical inference;

(iii) development of more adequate theoretical constructs; and

(iv) greater conceptual precision and perspective (Catell, 1966a, 1966b).

Multivariate techniques are classified into the following categories:

(i) Tests of hypotheses about differences in means and variances on a set of variables called "T2" and multivariate ANOVA procedures.

(ii) Multiple correlation and regression

(iii) Discriminatory Analysis;

(iv) Canonical analysis;

(v) Principal components analysis;

(vi) Factor analysis;

(vii) Latent structure analysis; and

(ix) Multi-dimensional scaling.

All of the above techniques are closely related and use the same set of mathematical theorems of linear algebra. For our purpose in this study, we will use correlation and regression analysis.

Regression analysis is used primarily for forecasting or predicting the value of a dependent variable, given the values of one or more independent values (Spurr and Bonini, 1973). The reliability of the forecast and the extent to which variation in the dependent variable is "explained" by variations in the independent value(s) can be tested and measured.

Regression and correlation analysis can "never" "prove" anything. They merely demonstrate association between or among the variables, the closeness of that association, and the reliability of the forecasts based upon the analysis (Messner et al, 1977).

4.5.4.1 The Multiple Regression Analysis

Multiple regressin is used to find a linear combination of the predictor variables that "best" accounts for variation in the criterion variable, when that variation is measured around the criterion variable's mean.

The multiple regression analysis involves the use of the ordinary least square (OLS) technique to estimate the functional and stochastic relationship between a dependent variable and a set of independent (or explanatory) variables. Taking the simple linear form as an example, a multiple regression model of the general form can be expressed as:

$$Y = f(x_1, x_2, x_3 \ldots\ldots Xn, e) \quad \ldots\ldots\ldots\ldots (1)$$

Equation (1) can take the linear form expressed by Equation (2) below:

$$Y = a_o + b_1 x_1 + b_2 x_2 + b_3 x_3 + \ldots\ldots b_n x_n + e \quad \ldots\ldots\ldots\ldots (2)$$

Where Y = dependent variable

a_o = the intercept (a constant)

$b_1 \ldots b_n$ = regression coefficients to be estimated

$x_1, x_2 \ldots\ldots x_n$ = the set of independent variables

and

e = error term.

Multiple regression assumes:

(i) that data should be normally distributed; if not normally distributed there is need to transform the data;

(ii) that data are linearly related, that is, it has no curve-linear relationship. If the data is not linear, it will be necessary to transform them to become linear.

The simplifying assumptions which are very crucial to the estimation of the regression parameters were elaborated upon by Kmenta (1971) and Wonnacott and Wonnacott (1979). The assumptions include the following:

(i) Normality, that is the error term is normally distributed with zero mean.

(ii) Homeskedasticity, that is, every disturbance has the same variance whose value is unknown

(iii) The disturbances are non-auto regressive (i.e. the disturbance occuring at one point observation is uncorrelated with some other disturbance);

(iv) No exact linear relationship exists between the explanatory variables, that is, there is no multicollinearity among the independent variables.

(v) The explanatory variables are measured without errors.

These assumptions are relevant to our results as they are applicable to the least-squares approach adopted in this study in determining the best estimate of our multiple regression equations.

The least square method, by and large, chooses the best fitting model to be that model which minimizes the sum of squares of the distances between the observed responses and those predicted by the titled model. The idea is that the better the fit, the smaller will be the deviations of the observed from predicted values.

Thus, the Ordinary Least Square technique can be used to estimate the parameters of equation (2) as given by equation (3) below:

$$Y^* = a^*_o + b^*_1 X_1 + b^*_2 X_2 + \cdots b^*_n X_n + e^* \quad \ldots.(3)$$

Where

Y^* = an estimator of Y

a^*_o = an estimator of a_o

$b^*_1, b^*_2 \cdots\cdots b^*_n$ = estimators for $b_1, b_2 \cdots\cdots b_n$ respectively

and e^* = an estimator of e.

Each of these estimators is regarded as the best linear unbiased estimate of the parameter it represents.

To test our overall regression, we would examine the F - ratio, and the R^2 estimate, and the t-statistic. The F-Ratio indicates the significance of the overall hypothesized model. It shows whether or not the independent variables have significant effects on the mean of the dependent variable. The ratio is computed by using equation (4) below:

$$F = \frac{(\text{regression sum of squares})/K}{(\text{error sum of squares}) \,/\, n-k-1} = \cdots\cdots\cdots (4)$$

Where

K = the number of independent variables; and

n = the number of observations

On the other hand, the R^2 provides a quantitative measure of how well the combination of independent variables predicts the dependent variable. The R^2 criterion makes adjustment for differences in the degrees of freedom and is given by the formula:

$$\bar{R}^2 = R^2 - \frac{K}{n-k-1} (1 - R^2) \quad \ldots\ldots\ldots (5)$$

Where $\bar{R}^2$ is the adjusted R^2 and K and n are as defined above. The t - statistic shows the significance of the individual regression coefficients. It is expressed as

$$t = {}^{bi}/_{Sbi} \quad \ldots\ldots\ldots\ldots\ldots (6)$$

Where Sbi is the standard error of the coefficient, bi

An explanatory variable is adjudged significant if its computed "t" ratio is greater than or equal to the tabulated "t" ratio at a given level of significance. As a rule of thumb, however, a regression is assumed signficant at the 5.0 per cent level of significance if its estimated coefficient is twice its standard error.

4.6 SUMMARY OF THE CHAPTER

In this Chapter, the focus has been on the dethodology chosen to accomplish research objectives, the method of collecting data, the sampling procedure and the data collection problems.

In addition, an attempt was made to discuss the data analytical techniques and the justification for their choice. These statistical techniques were outlined with respect to the underlying philosophical and technical considerations. In the subsequent chapters

we will focus on the analysis of the results of the empirical data. Towards this and, we will commence with socio-economic characteristics of rental households in the submarkets of our study.

CHAPTER FIVE

ANALYSIS OF THE SOCIO-ECONOMIC CHARACTERISTICS OF RENTAL HOUSEHOLDS IN IBADAN RENTAL HOUSING SUBMARKETS

5.1 INTRODUCTION

In the chapter on theoretical and conceptual framework, we had indicated the socio-economic characteristics of rental households which are germane to a behavioural study of the urban rental housing market. Drawing on the theoretical framework, we had argued that household characteristics do affect the demand for private rented accommodation. In this chapter, we will now proceed to examine the socio-economic characteristics of rental households in Ibadan rental submarkets and their effects on demand for rented accommodation of different categories in the different submarkets. The household characteristics to be examined are: household size, income, expenditure, educational level and occupation. We also consider related factors like Housing Services and tenure characteristics of rental housing.

The understanding of residential development in any area must be based on qualitative sub-market analysis which involves a thorough and accurate descriptive statistics of the housing stock and its inhabitants. The reason for this is obvious because such analysis serves as a starting point for rental housing market studies. Moreover, it is this type of analysis that reveals the behavioural relationships that exist in any housing sub-market. For example, the demand for rental housing can be interpreted meaningfully for guidance in the provision of additional housing and in fixing the desired and optimal rental price level in the various sub-markets. Therefore this section will focus on the identification and description of the housing stock and the socio-economic characteristics of their inhabitants in the three residential districts.

5.2 HOUSING STOCK AND MARKET CONDITION

The identification and description of the housing stock in the residential districts can be achieved by comparing the sampled dwelling units in terms of some indicators of housing standard. This is because housing is not a homogeneous good but exists as a bundle of services. Therefore, such indicators of housing standards are examined within the definition and framework of the housing market. For example, indicators such as the structure, quality, characteristics of occupancy and level of facilities will be used as the basis for comparing the housing units.

5.3 PHYSICAL AND STRUCTURAL VARIATION IN HOUSING STOCK AND MARKET CONDITION

This aspect of the study considers the physical/structural variations of the housing stock within and among the three residential sub-markets. Table 5.1 presents these variations.

A careful study of the table shows that in most cases there is no absolute domination of a particular type of dwelling structure in each residential sub-market. Table 5.2, 5.3 and 5.4 reveal striking variations in the level of housing quality indicators provided in the residential districts. A large proportion of the dwelling units in the low density residential sub-market were built of very high quality materials, serviced with modern and adequate in-house facilities and also located within a pleasant and peaceful environment. For example, an average of about 95 per cent of the sampled households live in dwelling units built of cement block with plastered and painted walls and roofed with asbestos. As regards the provision and usage of housing facilities, all the dwelling units

Table 5.1: Physical and Structural Variation of Housing Stock

VARIABLES		RESIDENTIAL DISTRICTS					
		Low Density		Medium Density		High Density	
		Frequency	% Age	Frequency	% Age	Frequency	% Age
DWELLING TYPE	Hut	0	0			2	1.6
	Bungalow	30	55.6	30	27.4	67	53.6
	Storey	24	44.4	88	72.6	28	22.4
	Compound Type	20	0	0	0	28	22.4
		54	100	121	100	125	100
HOUSING STRUCTURE	Early Brazillian	0	0	37	30.6	111	88.8
	Modern Brazillian	1	1.9	22	18.2	12	9.6
	Flats	6	11.1	56	46.2	2	1.6
	Duplex	10	18.5	2	1.7	-	-
	Semi Detached	11	20.4	0	0	-	-
	Detached	26	48.1	4	3.3	-	-
		54	100	121	100	125	100

Source: Analysis of Field Survey, 1993.

Table 5.2: Variation in Types of Buildings

PHYSICAL STRUCTURES	BUILDING MATERIALS	RESIDENTIAL SUB-MARKETS					
		Low Density		Medium Density		High Density	
		Frequency	% Age	Frequency	% Age	Frequency	% Age
WALL MATERIAL	Mud	0	0	29	24.0	105	84.0
	Stone	0	0	1	0.8	1	0.8
	Cement Block	53	98.1	86	71.1	19	5.2
	Burnt Brick	1	1.9	5	4.1	0	0
		54	100	121	100	125	100
EXTERNAL WALL MATERIAL	Plastered & Painted	49	90.7	102	84.3	23	18.4
	Plastered not Painted	4	7.4	14	11.6	63	50.4
	Not Plastered	1	1.9	5	4.1	39	31.2
		54	100	121	100	125	100
ROOFING MATERIAL	Thatched	0	0	0	0	5	4.0
	Corrugated Iron Sheet	1	1.9	110	90.9	114	91.2
	Asbestos	53	98.1	11	9.1	6	4.8
	Concrete	0	0	0	0	0	0
		54	100	121	100	125	100
FLOOR MATERIAL	Earth	0	0	0	0	27	21.6
	Cement (Concrete)	11	20.4	79	65.3	97	77.6
	Tile	27	50.0	39	32.2	0	0
	Terrazo	16	29.6	3	2.5	0	0
		54	100	121	100	125	100

Source: Analysis of Field Survey, 1993.

Table 5.3: Type and Provision of Housing Services

FACILITIES	OPTIONS	RESIDENTIAL DISTRICT					
		Low Density		Medium Density		High Density	
		Frequency	% Age	Frequency	% Age	Frequency	% Age
SOURCE OF WATER	Pipe	54	100	102	84.3	78	62.4
	Well	0	0	19	15.7	49	32.0
	Others	0	0	0	0	7	5.6
		54	100	121	100	125	100
WATER AVAILABILITY	In-Compound	0	0	51	42.1	49	39.2
	In-House	54	100	46	38.1	7	5.6
	Public	0	0	24	19.8	69	55.2
		54	100	121	100	125	100
SEWAGE TYPE	Flush Toilet	54	100	78	64.5	18	14.4
	Pit Latrine	0	0	43	35.5	56	44.8
	Bucket Type	0	0	0	0	15	12.0
	Open Air Type	0	0	0	0	36	28.8
		54	100	121	100	125	100
SEWAGE AVAILABILITY	In-Compound	0	0	53	43.8	55	44.0
	In-House	54	100	68	56.2	11	8.8
	Public	0	0	0	0	59	47.2
		54	100	121	100	125	100
KITCHEN	IN-Compound	2	3.7	51	42.1	82	65.6
	In-House	52	96.3	66	54.6	12	9.6
	Corridor	0	0	4	3.3	31	24.8
		54	100	121	100	125	100
LIGHT	Electricity	54	100	112	92.6	108	86.4
	Oil lamp	0	0	9	7.4	17	13.6
		54	100	121	100	125	100

Source: Analysis of Field Survey, 1993

Table 5.4: QUALITY INDICATORS OF HOUSING ENVIRONMENT

FACILITIES	OPTIONS	RESIDENTIAL DISTRICTS					
		LOW DENSITY		MEDIUM DENSITY		HIGH DENSITY	
		Frequency	%age	Frequency	%age	Frequence	% age
PRIVACY	Exclusive	54	100	13	10.7	18	14.4
	Fair	0	0	60	49.6	30	24.0
	No Privacy	0	0	48	39.7	77	61.6
		54	100	121	100	125	100
GARBAGE COLLECTION	Private Dustbin	4	7.4	25	20.7	9	7.2
	Commercial Bin	50	92.6	78	64.4	4	3.2
	Community Dump	0	0	16	13.2	89	71.2
	Thrown in street	0	0	2	1.7	23	18.4
		54	100	121	100	125	100
STREET CLEANLINESS	Clean	54	100	11	9.1	0	0
	Some Garbage	0	0	98	81.0	74	59.2
	Dirty	0	0	12	9.9	51	40.8
		54	100	121	100	125	100

have in-house supply of pipe water and flush toilet facilities.

Dwellings in the medium density residential districtswere built of fairly high quality materials. About 71.1 per cent of the housing units in this area were built of cement block, 84.3 per cent plastered and painted, 90.0 per cent roofed with corrugated iron sheets, while about 65.3 per cent of the floors were cemented. The district also recorded 84.3 per cent and 15.7 per cent for housing units with pipe and well sources of water; 64.5 per cent flush toilet, 35.5 per cent for pit latrine, 92.6 per cent electricity supply. On the question of availability of these services, the district exhibits an almost equal percentage for both in compound and in-house provisions and in some cases record an appreciable percentage for public provision of facilities e.g public water availability accounts for 19.8 per cent.

In the low density residential district, 55.6 per cent of the households live in Bungalows while 44.4 per cent live in storey buildings. Moreover, the district has 18.5 per cent of its house households in a duplex apartment, 20.4 per cent in semi-detached and 48.1 per cent of the households occupied detached dwelling.

Analysis of the dwelling type in the medium density residential sub-market shows that 27.3 per cent of the households live in Bungalows, 71.1 per cent in storey buildings, 30.6 per cent of the sampled households live in the early Brazilian type, 18.2 per cent in modern Brazilian type and 44.2 per cent live in the flat apartments.

The high density residential sub-market shows a different type of of distribution. In terms of dwelling type, 22.4 per cent of the sampled households occupy the compound type, 52.8 per cent live in Bungalows and households in the storey building accounted for the remaining 22.4 per cent.

This distribution shows complete absence of luxury properties like duplex and duplex mansion which in turn means that elite tenants are not likely to find this residential neighbourhood attractive.

5.4 VARIATION IN HOUSING QUALITY INDICATORS

The qualitative aspect of housing relates to both the Building materials and the intrinsic facilities in the house. To a large extent these two elements determine the qualitative standard of housing units, but in some cases the environmental sub-system of the housing may be included. To this end, emphasis will be on the following: The type and quality of materials used for the building, the type and usage of the basic infrastructural facilities (in-house or in-compound water supply, sewage disposal, kitchen facility and electricity supply); and the quality of the environment.

The high density residential sub-market has virtually very low quality housing standard indicators. Majority of the households claimed that their dwellings were built of mud (84 per cent), 50.4 per cent of the households live in plastered but unpainted dwellings, while about 31.1 per cent of the households occupied neither plastered nor painted dwelling. On the issue of housing services, the dwellings were poorly serviced, a high percentage of households were using pit latrine, bucket type and the open air system (44.8, 12.0 and 22.8 per cent respectively). Most of the services were either in-compound or public provision.

The environmental quality indicators show that households in the low density residential district enjoy a pleasant environment They live in exclusive privacy and clean environment. The latter

is a corollary of a large percentage (92.6 per cent) of the households that depend on a well serviced commercial garbage collection system. In the medium density district 89.3 per cent of the households live in dwelling units where the services are being shared between two or more households, while most of them also depend on the use of commercial garbage collection system.

The view that the local housing market can be defined in terms of qualitative attributes of dwelling units and the neighbourhood conditions is well orchestrated in the foregoing descriptive analysis. There exist a wide variation in the housing quality among the three residential districts. Also, the age distribution of dwelling units in the residential districts can be used as the basis for defining the rental housing market. Most of the households in the medium and high density residential districts claimed that their dwelling units range between 15-60 years. The analysis of age distribution shows that the modal age distribution for dwelling in the medium density area is between 15-20 years, constituting 55 per cent of the households, while the modal age for dwellings in the high density residential sub-market is between 30-40 years, accounting for about 67 per cent of the households. In the low density residential sub-market, most of the dwellings were between 10-15 years. The variation in the age distribution of dwelling units among the three residential sub-markets is a good measure of the physical conditions of dwelling units. For example, it is a crucial factor at revealing the extent of dilapidation in dwelling units. Old housing stock not renovated will become dilapidated over the years and therefore can serve as a differential factor as regards the study area.

5.5 DEMOGRAPHIC ANALYSIS OF RENTAL HOUSING MARKET

This portion of the rental housing market analysis is concerned with the sampled households which constitute the major component in the analytical structure. It presents a kaleidoscopic view of the characteristics of the inhabitants in the various residential districts. The household analysis is supported by the economy of the various residential sub-markets to serve as the quantitative demand for rental housing. Emphasis will be on household composition (such as household head characteristics household size; the number of households per dwelling unit, etc.

5.6 HOUSEHOLD COMPOSITION

Households are variously constituted, some are identical with families; others are composed of a single individual or a group of unrelated individuals; and still others are a combination of families or a family and individuals. Regardless of its composition, the household rather than the family is the unit of demand for housing. Therefore, the analysis of households is the crux of the demographic analysis. The detail or household analysis mirrors the complex and sometimes mystifying forces of the real estate market with which this project is concerned directly. On the issue of household head characteristics, for the total market study, 95 per cent of the households were of male head while only 5 per cent were headed by female. This type of distribution were equally exhibited by each residential sub-market. Opinions have shown that household with female head always tend to demand for dwelling unit with at least adequate provision of intrinsic housing infrastructure with some degree of privacy (Sternlieb and Hughes, 1981). Also a greater

Table 5.5: Household Size

H HOUSEHOLD SIZE	LOW DENSITY		MEDIUM DENSITY		HIGH DENSITY	
No. of persons per household	Frequency of household	%	Frequency of household	%	Frequency of household	%
1 - 2	3	5.6	5	4.1	14	11.2
3 - 4	15	27.8	17	14.0	15	12.0
5 - 6	26	48.2	29	23.9	18	14.4
7 - 8	9	16.7	39	32.3	23	18.4
9 - 10	1	1.7	19	15.7	19	15.2
11 - 12	-	-	3	2.5	18	14.4
13 - 15	-	-	4	3.4	11	8.8
15 +	-	-	5	4.1	6	4.8
	54	100	121	100	125	100

Source: Analysis of Field Survey, 1993

percentage of the households in rental housing were married; 81.4 per cent for the low density, 81.8 per cent for medium density and 78.4 per cent for the high density area. The other three alternatives (single family, divorced family and widow). Constituted less than 20.6 per cent of the households.

As regard the issue of market segmentation, we can say that the household with the most favourable ratio - male head wife present (husband - wife families) - is precisely that format which is being lost to the rental market.

5.7 HOUSEHOLD SIZE CHARACTERISTICS

The number of people living together constituting a household varies from one residential district to the other. The analysis of the household size will uncover the degree of overcrowding which can be be used as a surrogate measure of housing quality among the residential districts. Table 5.5 presents the varying household sizes for the three residential districts.

The modal household size for the low density area is about 5.5 persons per household. The figure for the medium and high desnity residential districts is about 7.5 persons per household. Tables 5.6, 5.7 and 5.8 shows that the average number of persons per household is 5.3, 7.4 and 7.9 for the low, medium and high density residential sub-markets respectively, while Table 5.9 shows the average number of rooms occupied per household. The calculation of the average number of persons per room which is a measure of overcrowding is shown in Table 5.9.

In the low density residential district, overcrowding index 1.4 persons per room, 2.2 persons per room in the medium density

Table 5.6: Calculation of the Average Number of Persons Per Household

Table 5.6: Low Density Residential District

Household Size a_1	Frequency of Households b_1	Total No. of Persons $a_1 \times b_1 = c_1$
1	1	1
2	2	4
3	4	12
4	11	44
5	8	40
6	18	108
7	4	28
8	5	40
10	1	10
	54	287

Total number of Household Sampled = 54

Average Number of Persons Per Household

$$= \frac{\text{Total } C_1}{\text{Total } B_1} = \frac{287}{54}$$

$$= 5.3$$

Table 5.7: Medium Density

Household Size a_2	Frequency of Households b_2	Total No. of Persons $a_2 \times b_2 = c_2$
2	5	10
3	8	24
4	9	36
5	13	65
6	16	96
7	18	126
8	21	168
9	10	90
10	9	90
11	3	33
13	1	13
14	2	28
15	1	
18	2	
19	1	
25	2	
	121	899

Total No. of Household Sampled = 121

Average No. of Person Per Household =

$$= \frac{\text{Total } C_2}{\text{Total } B_2} \qquad \frac{899}{121} = 7.4$$

Table 5.8: High Density

Household Size	Frequency of Household	Total No. of Persons
a_3	b_3	$a_3 \times b_3 = c_3$
1	7	7
2	6	12
3	10	30
4	5	20
5	7	35
6	11	66
7	9	63
8	14	112
9	11	90
10	8	80
11	5	55
12	13	156
13	4	52
14	5	70
15	2	30
16	2	32
17	5	51
19	1	19
	125	989

Total No. of Household Sampled = 125

Average No. of Person Per Household

$$= \frac{\text{Total } C_3}{\text{Total } b_3} = \frac{989}{125} = 7.9$$

Table 5.9: Calculation of the Average Number of Persons Per Room in the Residential Districts (Overcrowding Index)

The General order is therefore given as

$$\frac{\text{Average Number of Persons per Household}}{\text{Average Number of Rooms per Household}}$$

For Low Density/High Quality Residential Submarket.

$$\text{Overcrowding Index} = \frac{5.3}{3.9} = \underline{\underline{1.4}}$$

For Medium Density/Medium Quality Residential Submarket

$$\text{Overcrowding Index} = \frac{7.4}{3.3} = \underline{\underline{2.2}}$$

For High Density/Low Quality Residential Submarket

$$\text{Overcrowding Index} = \frac{7.9}{3.1} = \underline{\underline{2.6}}$$

density area and 2.6 persons per room in the high density residential district. If we consider the fact that the United Nations regard as ideal an average of 1 person per room, then the figure exhibited by the medium and high density residential districts are too high. Therefore there is high degree of overcrowding in these two districts. The three residential districts have shown some striking elements of differentiation as regards household size and the degree of overcrowding. Therefore each residential sub-market can be defined and analysed separately from the other. That the low density residential district is inhabited by households with low household size coupled with low overcrowding index is enough for the segmentation of the district from the medium and high density residential sub-markets which exhibit very high household sizes and overcrowding index.

5.8 ECONOMIC ANALYSIS OF RENTAL HOUSING MARKET

Effective demand for rental housing is usually supported by the ability to pay as against the willingness to pay for residential accommodation. Therefore, the measurement of the financial capability of potential renters is very important in the analysis of local rental housing market. In most communities, wages and salaries are the most important components of determining the level of income of various rental households (F.H.A., 1985). But two issues emerge in the use of income as a measure and as a descriptive classification of housing market or sub-market. In the first instance the high income households may under-report their income in an attempt; to evade or cut down high taxes or are otherwise interested in not disclosing their true income. While on the other hand, most house-

Table 5.10: Income Distribution of Rental Households (Monthly Incomes)

INCOME	GROUP	RESIDENTIAL DISTRICTS					
		LOW DENSITY		MEDIUM DENSITY		HIGH DENSITY	
		Frequency	%	Frequency	%	Frequency	%
Lower	0 - 300	0	0	0	0	8	6.4
	301 - 600	0	0	0	1.1	17	13.6
Low	301 - 600	0	0	11	1.1	17	13.6
	601 - 900	1	1.9	24	19.9	33	26.4
	901 - 1,200	0	0	43	35.6	42	33.6
Middle	1,201 - 1,500	1	1.9	16	13.3	15	12.0
	1,501 - 1,800	4	7.4	11	9.1	8	6.4
High	1,801 - 2,400	9	16.7	6	4.8	2	1.6
Affluent	2,401 - 3,000	26	48.7	7	5.7	0	0
	3000 +	13	24.4	3	2.5	0	0
		54	100	121	100	125	100

Source: Analysis of Field Survey, 1993

Table 5.11: Expenditure Distribution of Rental Households Per Month

INCOME	GROUP	RESIDENTIAL HOUSEHOLDS					
		LOW DENSITY		MEDIUM DENSITY		HIGH DENSITY	
		Frequency	%	Frequency	%	Frequency	%
Lower	0 - 300	0	0	0	0	9	9.2
Low	301 - 600	0	0	12	9.9	19	15.2
	601 - 900	0	0	25	20.7	40	32.0
	901 - 1,200	3	5.7	46	38.1	42	33.6
Middle	1,201 - 1,500	2	3.8	11	9.1	10	8.0
	1,501 - 1,800	4	7.5	10	8.3	5	4.0
High	1,801 - 2,400	19	35.7	10	8.3	0	0
Affluent	2,401 - 3,000	17	31.9	3	2.5	0	0
	3000 +	9	17.1	4	3.2	0	0
		54	100	121	100	125	100

Source: Analysis of Field Survey, 1993.

holds make decisions about consuming durable goods such as housing on the basis of a long-run idea of what their typical income is most likely to be.

These issues may distort the true position of the income distribution of households in rental housing market vis-a-vis the classification or segmentation of sub-markets based on income distribution. To undercut the problems, households were asked to indicate their expenditure (amount spent on consumable and service goods) in the previous month. This is a better means of arriving at households income since most households are not likely to under-report their expenditure and therefore a better proxy for income.

To complement the income distribution of rental households, other economic attributes such as the occupational structure, level of educational attainment, vehicle ownership or mode of travel were analysed.

5.9 INCOME AND EXPENDITURE DISTRIBUTION OF RENTAL HOUSING MARKET

Tables 5.10 and 5.11 show the income and expenditure distribution of the rental housing market in Ibadan. The lower; low, and the middle income/expenditure households are basically the group being lost to the rental market in both the medium and high density residential sub-markets. These three income/expenditure groups (the lower, low and middle) constituted about 77.3/77.8 per cent of the total sampled households in the medium density residential district while they also accounted for about 92/98 per cent of households in the high density residential sub-market. Although the medium density residential sub-market records an appreciable percentage of house-

earning and spending quite above ₦1,000.00 per month; for example, about 22.1 per cent of the households earn between ₦1,000.00 - ₦2,000.00 per month, while only 19.1 per cent spend between the same amount monthly.

In the low density residential district, most of the households in rental market were in the affluence income/expenditure group. This accounted for about 73.1/49.1 per cent of the households sampled in this sub-market. Of equal importance in rental market are the households in the high income/expenditure group in the low density area. The group also constituted an appreciable number of households. 24.1/43.2 per cent of the households sampled in the residential/ district. The lower, low and the middle income/expenditure households were relegated to the bearest minimum in this area.

The foregoing analysis clearly shows that there is wide differentiation among rental households in the three residential districts used for the study as regards income/expenditure distribution. The households in the rental market in the low density residential sub-market are basically the high and affluent income/expenditure group while the lower, low and middle income/expenditure groups predominate the households in the high density residential district. With the impressive high level of income/expenditure percentages recorded for households in the medium density residential sub-market over and above the high density district we can also confirm that the two residential districts differ significantly.

Based on this sort of differentiation, the local rental market in Ibadan can be sub-divided into three sub-markets based on the income/ expenditure distribution.

Table 5.12: Educational Level of Rental Households

EDUCATIONAL LEVEL	RESIDENTIAL DISTRICTS					
	LOW DENSITY		MEDIUM DENSITY		HIGH DENSITY	
	Frequency	%	Frequency	%	Frequency	%
No formal education	0	0	0	0	29	23.2
Primary Education	1	19	14	11.6	54	43.2
Secondary/Technical	1	1.9	50	41.3	38	30.4
Polytechnic/NCE	12	22.2	42	34.7	2	1.6
University	40	74.0	15	12.4	2	1.6

Source: Analysis of Field Survey, 1993

5.10 EDUCATIONAL LEVEL OF RENTAL HOUSING MARKET

The level of educational attainment of households in rental market may be perceived as a consideration as regards to location and rental price level. Though, this assertion cannot be divorced from other socio-economic attributes of households as they jointly determine the demand capacity for rental accommodation.

Most of the households living in rental housing in low density residential sub-market obtained university education (74.0 per cent of the total household), while those with either Polytechnic education or College of Education constituted 22.2 per cent of the sampled households. The households with primary, secondary/technical education are minimal.

In the medium density residential district, the households are well distributed all over the educational level with the exception of those with formal education. For example, households with primary education background accounted for 11.6 per cent, those with secondary/technical background were 41.3 while those with University and Polytechnic/Teachers College were 12.4 and 34.7 per cent respectively.

There is ample evidence to show that almost all the sampled households in the high density residential district were distributed across three educational levels. These are those with no formal education consisting 23.2 per cent, primary education 43.2 per cent and those with secondary/technical education forms 30.4 per cent.

Previous studies have attempted at using educational level and income distribution in explaining residential differentiation. Ansa (1980) found out that these two variables are significant inexplaining the pattern of residential development in Calabar. Attention in this project is at using educational level as a means of defining rental housing sub-market in Ibadan. To this end, the low density residen-

Table 5.13: Occupational Structure of Rental Households

OCCUPATIONAL CHARACTERISTICS	RESIDENTIAL DISTRICTS					
	LOW DENSITY MEDIUM		MEDIUM DENSITY		HIGH DENSITY	
	Frequency	%	Frequency	%	Frequency	%
Farming	0	0	0	0	3	2.4
Trading	5	9.3	36	29.8	82	65.6
Civil Servant	14	25.9	29	24.0	16	12.8
Private Company	35	64.8	46	38.0	16	12.8
Retired	0	0	8	6.6	6	4.8
Unemployed	0	0	2	1.7	0	0
Student/Apprentice	0	0	0	0	2	1.6
	54	100	121	100	125	100

Source: Analysis of Field Survey, 1993

tial district consists of well educated households while the high density area inhabits generally low educational level households. The medium density residential sub-market cut across households with varying degree of educational attainment.

5.11 OCCUPATIONAL STRUCTURE OF RENTAL HOUSING MARKET

The analysis of occupational structure is an important input to the economic analysis of local housing market. This is because most households that live in rental accommodation require at least one gainfully employed member to provide a monetary income from which the rental price level would be paid and at the same time serves as measures of the living standard of households. But one hidden fact is the type of relationship that exist between occupational structure and income and therefore the use of occupational structure in isolation as a means of delineating a rental housing sub-market is somehow unrealistic. It has to be used in collaboration with other socio-economic characteristic of households in the various residential districts.

Majority of the sampled households in the high density residential sub-market were engaged in trading which accounts for 65.6 per cent of the households, while those households engaged in the public service and private company were 12.8 per cent. The situation is more striking in the medium density residential district where households in the public sector, private company and trading dominate the occupational scene. Majority of the households in the low density residential district were in the private sector constituting about 64.8 per cent of the households while those in the public service were only 25.9 per cent.

5.12 TENURE CHARACTERISTICS OF RENTAL HOUSING MARKET

Tenure is an occupancy characteristic of housing unit. The occupancy status of the housing inventory can be grouped under two major headings, owner-occupier, renter-occupier. To this may be added the third generally referred to as vacant units. Vacant units are sub-divided as available for occupancy and others not available. Available vacant units are further streamlined as being either for sale only or for rent; the former are allied with the owner-occupier sub-market of the housing inventory and the latter with the renter-occupied segment.

The low and medium density residential districts represent the zone of high renter households corresponding to 81.5 per cent and 78.5 per cent respectively while the high residential district recorded higher percentage of owner-occupied households - 56 per cent as against 41 per cent for the rentals.

5.13 SUMMARY OF CHAPTER

In this chapter, an attempt has been made to examine the characteristic profiles of the renter households in the three residential sub-markets of the case-study. It is noted in particular that one of the objectives of this study - to examine some socio-economic characteristics of rental households has been achieved in this chapter.

We have also focussed on the distributional characteristics of the variables which were examined in chapter two.

So far, our analysis has focussed on the demand side that in the consumers of rental housing. In our theoretical framework, we identify the basic participants of the rental housing market viz: the consumers (tenants), the suppliers (rental property owners) and the consumer housing agents (property managers).

In the next chapter, we will focus on a discussion of the rental housing management strategies and practice of selected firms of Estate Surveyors and Valuers in Ibadan metropolis.

CHAPTER SIX

ANALYSIS OF THE RENTAL HOUSING MARKETING STRATEGIES AND PRACTICE OF CONSUMER HOUSING AGENTS

6.1 INTRODUCTION

The activities of the consumers' housing agents are very important to the explanation of housing delivery system within the residential sub-markets used in this study. Therefore it would be necessary to relate the forms of consumer agents to the varying rental levels in the three residential districts. The activities of the formal consumers' housing agents (estate surveyors and valuers) predominate the low density residential district. This is obvious in that majority of the sampled households in the district obtain their housing services through this medium. Because of the level of their expertise in managing residential units, the formal agents are paid accordingly. This amount added to the rental level would invariably increase the amount the tenants would be or are paying.

The informal consumers' housing agents (caretakers) controlled the market activities for rental housing in the medium density residential district. Majority of the sampled households obtain their housing services through this sector. The issue of professionalism in their services is minimal and rent is usually fixed in accordance to the prevailing conditions in the sub-market. But usually charges are over and above the request of the landlords thereby increasing the market friction in this residential sub-market.

The high density residential district has earlier been depicted as a zone of owner occupier tenure where most of the dwelling units

are occupied by their owners and the tenants. In this case the owner (landlord) would not require the services of any agent in renting out part of the dwelling unit to tenants. This is evident in this district as about 95 per cent of the sampled household obtained their housing services from the popular agents.

In some cases, rents are not determined by the market situation alone but in accordance with the type of relationship existing between the tenants and the landlords. For example, where residents are long time tenants, they might be seen as part of the landlord's family and therefore the less easy it is to increase rent. This could be the reason for the low rental level variation in this residential district.

In the light of the above brief exposition of the formal and informal consumer housing agents, this chapter focusses on the rental property marketing activities and strategies of a selected number of this, fifty (50) questionnaires were administered on a random sample of firms of estate surveyors and valuers through the use of the Directory of the Nigerian Institution of Estate Surveyors and Valuers (NIESV). Out of the 50 questionnaires, 31 were returned representing a response rate of 62%.

Our purpose here will be to analyse the views of respondents on a wide range of issues with a view to eliciting the problems of rental housing management in our case study. The purpose of this is to provide a balanced analysis of the problems of rental housing market in Ibadan particularly where properties are professionally managed. This is necessary for our recommendations in a later chapter of this study will be based on three perspectives viz: the tenants, the property owners and the property managers.

6.2 POSSESSION OF PROPERTY MANAGEMENT DEPARTMENT

The various traditional routines of a management surveyor requires a separate department or section in an Estate Surveying and Valuation establishment with basically managerial duties not conflicting with other possible assignments like valuation, property financing, development, etc. Thus the firms were asked whether or not they possess a formal property management section or department. 24 firms (77%) answered in the affirmative while 7 gave "No" answer representing 23%. That the majority of the sampled firms have property management establishments is not surprising as management is the most popular of the services of Estate Surveyors and Valuers moreso in these days when property development is distressed by the current economic predicament in the country. The finding also shows that rental property owners avail themselves of the professional services of the Estate Surveyors and Valuers which has led to the firms' departmentalization drive. (See Table 6.1).

Table 6.1: Possession of Property Management Department

Response	Frequency	Percentage
Yes	24	77%
No	7	23%
Total	31	100%

6.3 FULL TIME STAFF STRENGTH OF PROPERTY DEPARTMENT

Property management requires staffing (the right calibre of men women in the right number) to perform essential duties as a means of realising the objectives of management. Of the 31 respon-

dents that possess a property management section, 9 representing 39.5% have between one and five full time staff; 9 others also representing 39.5% have between 6 - 10 full time staff; 1 representing 4% has between 11 to 19 full-time staff while only 4 representing 17% have 20 or more full time staff strength. Staff strength of the consumer agent firm is very important as the traditional routine of rental property management constitutes a heavy work load that can be satisfactorily borne by full-time, diligent and well motivated staff. Sufficient staff is necessary to attend to new client and minister to the needs of new clients in the areas of rent collection, maintenance of properties, tenant's welfare to mention but a few of the routines of management. (See Table 6.2).

Table 6.2: Full Time Staff Strength of Property Department

Number	Frequency	Percentage
1 - 5	9	39.5%
6 - 10	9	39.5%
11 - 19	1	4.0%
20 and above	4	17.0%
Total	23*	100%

* Total less than 31 because not all entities surveyed have full time staff for the property department.

Source: Author's Field Survey (1993).

6.4 NATURE OF PROPERTY MANAGEMENT OBJECTIVES

Different people, at different times may have different objectives to achieve with respect to the properties in their portfolio. Respondents were asked to indicate whether their property management objectives

are either expressly stated or unstated but known to all staff or variable depending on the property and circumstances. 13 respondents representing 42% indicated that the objectives are expressly stated; 11 representing 35% indicated the objectives are unstated but known to all staff. This gives a total of 77% of the respondents having definite objectives. Four firms representing 13% indicated that the objectives are variable depending on the circumstances while 3 respondents representing 10% gave no response.

Since a total of 77% of the firms know the property management objectives of the firm, it is expected that staff can be motivated to work towards the realisation of these objectives. The problem here, however, is that where the expressly stated or unstated but known objectives are to be rigidly adhered to by all staffers, such an arrangement will not make for flexibility in management objectives depending on the property and the circumstances (See Table 6.3).

Table 6.3: Nature of Property Management Objectives

Nature	Frequency	Percentage
Expressly stated	13	42%
Unstated but known to all staff	11	35%
Variable depending on the property and circumstances	4	13%
No Response	3	10%
Total	31	100%

Source: Author's Field Survey (1993)

6.5 SPECIFICATION OF PROPERTY MANAGEMENT OBJECTIVES

Respondents were asked to indicate whether their property management objectives are formulated either by Property Management Section

with approval of top management or specified by top management. The purpose of this question is to detect the degree of autonomy granted the property management section. Of the 31 respondents, 12 representing 39% claim the property management objectives are formulated by property management section with approval of top management while 16 representing 51% indicated the objectives are specified by top management. 3 respondents representing 10% gave no response. It is considered a salutary development that top management allows input from the property management department staffers in the specification of the management objectives. This is because the staff of the department are the executors of the objectives in the final analysis and there is therefore need for their participation at the policy (objective) formulation stage (See Table 6.4).

Table 6.4: Specification of Property Management Objectives

Options	Frequency	Percentage
Formulated by Property Management Section with approval of top management	12	39%
Specified by Top Management	16	51%
No Response	3	10%
Total	31	100%

Source: Author's Field Survey (1993)

6.6 MODE OF PAYING RENT

The property management establishments were asked to indicate the mode of rental payment by their tenants. 22 of them representing 52% indicated that rent is paid either by cheque or money order. Another 15 representing 36% indicated payment by cash while 5 respondents representing 12% gave no response.

The prepondence of payment by cheque or money order is not surprising in these days when transaction by cash is becoming unsafe particularly in case where huge rental sum is involved (See Table 6.5).

Table 6.5: Mode of Paying Rent

Mode	Frequency	Percentage
By Cash	15	36%
By Cheque or Money Order	22	52%
No Response	5	12%
Total	42*	100%

* Total more than 31 because of multiple responses.

Source: Author's Field Survey (1993)

6.7 HOW RENTAL PAYMENTS ARE MADE BY TENANTS

Respondents were given three options on how rental payments are made to their property management section. As seen from Table 6.6 only 2 respondents representing 48% claim payments are sent through the mail. 19 of the respondents representing 45.2% have their rental payments sent in by hand by tenant; another 13 representing 31% have their rents collected by officials while 8 reppondents representing 19.0% gave no response. The low percentage of respondents paying through the mail may be due to the delay in and the unreliability of the Nigerian Postal System. That the mail system is unpopular is not surprising because of the unpredictability of Nigerian Postal System.

Table 6.6: How Rental Payments are Made by Tenants

Options	Frequency	Percentage
Sent through the Mail	2	4.8%
Sent in by hand by tenant	19	45.2%
Collected by Official	13	31.0%
No Response	8	19.0%
Total	42*	100%

*Total more than 31 because of multiple responses.

Source: Author's Field Survey (1993)

6.8 WHEN DEMAND NOTICES ARE SENT

Property managers make demand notices to tenants of their occupied properties for the purpose of effecting payments of rents. As can be seen from Tabl 6.7, 17 respondents representing 53% sent their demand notices before payment is due, none waits until after payment is due before sending demand; another 9 representing 28% send demand notices both before and after payment is due while 6 respondent representing 19% gave no response. It is in order that demand notices are sent before payment by the majority of the firms to ensure prompt payment of rents. This is more relevant to the case of corporate tenants where bureaucracy may affect treatment of demand notices.

Table 6.7: When Demand Notices are Sent

Options	Frequency	Percentage
Before payment is due	17	53%
After payment is over due	0	-
Both before and after	9	28%
No Response	6	19%
Total	32*	100%

* Total more than 31 because of multiple responses

Source: Author's Field Survey (1993)

6.9 POSSESSION OF ACTIVE DELINQUENT TENANT EVICTION PROGRAMME

Respondents were asked whether or not they possess active deliquent tenant eviction programme. 16 respondents representing 52% gave a "Yes" response while 8 representing 26% answered "No". The remaining 7 representing 22% gave no response. It is important for firms to have active deliquent tenant eviction programme to minimize one of the risks inherent in rental property investment - irregularity of income flows or default which may frustrate or defeat the objectives of the investor (See Table 6.8).

Table 6.8: Possession of Active Deliquent Tenant Eviction Programme

Response	Frequency	Percentage
Yes	16	52%
No	8	26%
No Response	7	22%
Total	31	100%

Source: Author's Field Survey (1993)

6.10 NATURE OF DELIQUENT TENANT EVICTION PROGRAMME

The 16 respondents that claim to possess active tenant eviction programme were unanimous that court action is their weapon. It is however questionable how court action can be regarded as an active deliquent tenant eviction programme in view of the time lag normally involved in litigations in the country. It is interesting to note that no respondent identified persuasion and forceful ejection or police assistance as aspects of their deliquent tenant eviction programme (See Table 6.9).

Table 6.9: Nature of Deliquent Tenant Eviction Programme

Options	Frequency	Percentage
Court Action	16	100%
Forceful Ejection	-	-
Police Assistance	-	-
Persuasion	-	-
No Response	-	-
Total	16*	100%

* Total less than 31 because only 16 of the 31 surveyed claimed to possess active deliquent tenant eviction programme.

Souce: Author's Field Survey (1993)

6.11 POSSESSION OF TENANTS' ASSOCIATION IN MANAGED PROPERTIES

Tenants' Association may often be useful in managed properties for variety of reasons. These include promotion of peaceful co-existence and resolution of disputes. Respondents were asked whether they possess tenants association in managed properties. 14 respondents representing 45% claim to possess tanants' associations in some managed properties, 12 representing 39% claim to possess no tenant association while the remaining 5 representing 16% gave no response (See Table 6.10).

Table 6.10: Possession of Tenants' Association in Managed Properties

Response	Frequency	Percentage
All managed properties	-	-
Some managed properties	14	45%
None	12	39%
No Response	5	16%
Total	31	100%

Source: Author's Field Survey (1993).

6.12 ENCOURAGEMENT OF TENANTS' ASSOCIATION

Respondent were asked whether they encourage tenants' association or not. To this question, 14 respondents representing 45.2% answered in the affirmative, 11 representing 35.5% claim not to encourage tenants' association while 6 respondents representing 19.3% gave nc response. There is need to encourage tenants' association as stated earlier to promote peaceful coexistence and resolution of disputes. This is also necessary for prompt and co-operative approach/efforts to resolving common problems in the neighbourhood such as issues of safety, environmental protection, road maintenance or related common problems (See Table 6.11).

Table 6.11: Encouragement of Tenants' Association

Response	Frequency	Percentage
Yes	14	45.2%
No	11	35.5%
No Response	6	19.3%
Total	31	100%

Source: Author's Field Survey (1993).

6.13 ALLOCATION OF A CERTAIN PERCENTAGE OF THE GROSS INCOME OR SOME OTHER NAIRA AMOUNT FOR VACANCY AND COLLECTION LOSSES

On whether respondents allocate a certain percentage of the gross income or some other naira amount for vacancy and collection losses, it was found that none does so. This finding shows that either the respondents do not attach much significance to vacancy and debt collection losses or that they may not have the problem in their managed properties. The high demand for rental properties due to the prevailing economic situation in the country may also be responsible.

Table 6.12: Allocation of a Certain Percentage of the Gross Income or Some other Naira Amount for Vacancy and Collection Losses

Response	Frequency	Percentage
Yes	-	-
No	31	100%
Total	31	100%

Source: Author's Field Survey (1993)

6.14 ALLOCATION OF AN AMOUNT FOR A RESERVE FUND FOR PROPERTIES

Respondents were asked whether or not they allocate an amount for a reserve fund for their managed properties. To this question 14 respondents representing 45.2% answered in the affirmative while 17 representing 54.8% gave a "No" response. It is essential that an amount for a reserve fund be allocated for properties at least for contingency purposes (See Table 6.13).

Table 6.13: Allocation of an Amount for a Reserve Fund for Properties

Response	Frequency	Percentage
Yes	14	45.2%
No	17	54.8%
Total	31	100%

Source: Author's Field Survey (1993)

6.15 TREATMENT OF DEFAULTING TENANTS

On the treatment meted out to defaulting tenants, 12 respondents (39%) claim that defaulting tenants are sometimes prosecuted, 2 representing 6% claim defaulting tenants are never prosecuted, 8 representing 26% claim defaulting tenants are often prosecuted for recovery; while a respondent, representing 29% gave no response. Table 6.14 explains further.

Table 6.14: Treatment of Defaulting Tenants

Treatment	Frequency	Percentage
Sometimes prosecuted	12	39%
Never prosecuted	2	6%
Often prosecuted for recovery	8	26%
No Response	9	29%
Total	31	100%

Source: Author's Field Survey (1993).

6.16 BUDGETTING AND ALLOCATION OF RESOURCES FOR PROPERTY MANAGEMENT SECTION

Respondents were asked to indicate the type of budget for the property management section. 8 respondents representing 26% claim to possess separate annual budget; 1 representing 3% possess separate quarterly budget; 4 representing 13% possess separate monthly budget; while a majority, 17, representing 55% possess join budget with other sections of the company and the remaining 1 respondent 3% gave no response. The implication of the majority having joint budget is an indication of the degree of financial autonomy granted to the property management section and this may affect the amount of resources available to discharge property management functions (See Table 6.15).

Table 6.15: Budgetting and Allocation of Resources for Property Management Section

Type of Budget	Frequency	Percentage
Separate Annual Budget	8	26%
Separate Quarterly Budget	1	3%
Separate Monthly Budget	4	13%
Joint Budget with other sections	17	55%
No Response	1	3%
Total	31	100%

Source: Author's Field Survey (1993).

6.17 NATURE OF PROPERTY MANAGEMENT FUNCTIONS

Respondents were asked to indicate whether or not they have their property management functions as full-time assignment or whether they perform them as a shared assignment with other duties. To this question 13 respondents representing 42% have their property

management functions as full-time assignment while 15 representing 48% have them as a shared assignment with other duties. The remaining 3 respondents representing 10% gave no response. In view of the multi-faceted aspects of the property management fuctions, one would have expected a majority of the respondents to perform these functions as full time assignment. This may become the situation as professional property management becomes more acceptable to the citizenry w which will increase tremendously the managed properties in portfolio and thus requires full-time specialisation (See Table 6.16).

Table 6.16: Nature of Property Management Functions

Nature of function	Frequency	Percentage
A full time assignment	13	42%
A shared assignment with other duties	15	48%
No Response	3	10%
Total	31	100%

Source: Author's Field Survey (1993)

6.18 RELATIONSHIP BETWEEN INCREASE IN RENTAL INCOME AND INCREASE IN OPERATING EXPENSESS

Many rental property owners are concerned that operating expenses are increasing faster than rent revenues. Respondents were then asked if over the last few years, their rental income has increased faster than expenses have, about the same as expenses have, or lower than expenses have. To this question, 2 respondents representing 6% claim that rental income increases faster than operating expenses, 8 respondents representing 26% claim rental income increases at the same rate, 12 respondents representing 39% claim rental income increases slower while 9 representing 29% gave a

"Dont Know" response.

The finding here that rental income increases slower than operating expenses has serious implication for the rental housing market. In the first place, this will adversely affect the ability of the property owner to service his debt obligations where the property is mortgaged because it is the quantum and regularity rental income that determines (among other factors) the ability of the borrower to service his debt. Secondly, as operating expenses faster than rental income, the gap between investment expectation and investment realisation (the risk element) widens which may frustrate the basic objective of the private rented property owner which is profit maximisation (see Table 6.17).

Table 6.17: Relationship Between Increase in Rental Income and Increase in Operating Expenses

Relationship	Frequency	Percentage
Rental Income Increases Faster	2	6%
Rental Income Increases at the same rate	8	26%
Rental Income Increases Slower	12	39%
Don't know	9	29%
Total	31	100%

Source: Author's Field Survey (1993)

6.19 SCHEDULE OF RENT REVIEW

Respondent were unanimous that there is no specific schedule for rent review. This finding places the consumers (tenants) at a disadvantage position as rent reviews can be carried out arbitrarily by the agent himself or acting on the advice or pressure from the property owner (See Table 6.18).

Table 6.18: Schedule of Rent Review

Schedule	Frequency	Percentage
Once each year	-	-
Some other schedule	-	-
No Specific Schedule	31	100%
Total	31	100%

Source: Author's Field Survey (1993)

6.20 ANALYSIS OF OPEN-ENDED QUESTIONS

In the first question of the open-ended questions of the questionnaire, the respondents were asked on how they normally secure properties for management purposes. Some of the responses obtained were:

(a) Through personal contact with landlord

(b) Through goodwill

(c) Through scouting for properties

(d) By way of letter of introduction to individual house owners

(e) By belonging to social groups or organisations

(f) By way of transfer of properties from fellow estate forms.

On the property management activities carried out, respondents listed the following: Repairs, Replacement, Rent Collection, preparation of tenancy agreement, collection of service charges, monitoring of WATER and NEPA bills and other charges, waste management and general sanitation, meetings and supervisory roles of tenants.

The third question asked the respondents to state their property management objectives to which the following responses were obtained:

(a) Satisfaction of the landlord and tenants needs

(b) Increasing properties in portfolio

(c) Realization of clients' goal within the context of professional ethics.

(d) Maintainingg and probably prolonging the working life of the buildings for the clients.

(e) Providing the required professional service in real estate professional service that can adequately support the main profit centre of the firm.

(f) Reducing cost on repairs by adequate maintenance and servicing of components.

(g) Taking away from the shoulders of clients the responsibility for management and to give the client the best option for his property.

(h) Ensuring that all statutory obligations such as tenement, water, improvements are all complied with.

(i) Enhancing the capital values of the properties.

(j) Paving way for a planned development of estates.

(k) Making sure the property is always in a tenant table condition.

(l) Attaining maximum profit.

Although the above list is not exhaustive of the state of the art on property management objectives, it could be concluded that the property management firms have good understanding of property management objectives.

On the designation of the officer in charge of the property management section, it was found that various firms adopt varying nomenclatures which include chief Estate Surveyor, Assistant Estate Surveyor, Estate Manager, Premises Officer, Estate Officer, Estate Officer, Estate Surveyor and Valuer, Estate Surveyor in charge, Estate Surveyor, Branch Manager, Property Manager, Manager, Regional Premises Manager, (by the Financial Institution respondent), Assist-

ant General Manager (by the Property Development Corporation), Associate Partner, Patner, Surveyor (Management), Management Surveyor. While one can concede the non-professional Estate Managers adopting different nomenclatures, there is need for Estate Surveyors and Valuer to adopt a uniform nomenclature to designate the officer-in-charge of the property management section.

On the problems that are encountered in discharging property management functions, respondents offered the following:

(a) Lack of authority to exercise full professional discretion due to interference by instructions from property owners and top management.

(b) Collusion/connivance of staff with tenants.

(c) Lack of understanding of the property management by landlords.

(d) Tenants' reluctance to pay rent at appropriate time.

(e) Lanlords' unwillingness to carry out repairs when called upon.

On other schedules for rent reviews apart from annually or quarterly respondents give the following responses

(a) When the landlord wants it so

(b) When the surveyor advises the landlord considering the current mental value.

(c) When it is discovered that other properties in the cvicinity are commanding higher rents.

On whether rent increases for tenants who move in or remain the same as previous tenants, respondents claim the rent may remain the same or the rent may increase through the instruction of the landlord because he might be nursing the hope of increasing the rent before the new tenant moves in.

On factors responsible for increase in rental income, respondents were unanimous in identifying the present inflationary rate in the economy which has affected all sectors of the Nigerian economy and the real estate sector is not an exception.

Lastly, respondent as experienced property managers) were asked if there was a need for a model for studying the behaviour of the participants and Housing Agents) in the Rental Housing Market, and if there was a need for such a model, to offer their reasons for the need. To the second part of the question which asked for the respondents' reasons for any response they might give, those who support the need for a model offered as many reasons as possible some of the reasons given are cited as follows:

(a) So that we may know where the problem lies and why so many people are not usually interested in decision - making processes in the housing market.

(b) One observes a general apathy on the part of the property owners to make use of the services of the professional manager. There may be an important factor responsible needing solution.

(c) the model could be used to explain the extent of involvement of the formal consumer housing agents (the professional property managers) in property management activities of urban housing.

(d) such a model will show factors governing the behaviour of the participants and those factors which hinder their effective participation.

(e) Too many property owners do not distinguish between the services of the professional managers or the informal agents like quacks and caretakers; it may be interesting to know why ?

(f) there is the need so that necessary efforts could be taken to get landlords interested in and appreciate the services of the professional property manager.

(g) The Estate Surveyor and Valuer is the only legally qualified professional to manage properties in Nigeria. It is therefore necessary to know the degree of involvement of Estate Surveyors and Valuers in Property Management matters as well

as the factors encouraging or hindering their participation.

(h) Such a model would guide a rational thinking process in evolving appropriate policy directions for a functional, effective and efficient rental housing delivery system in Nigeria.

Our findings here confirm some of our postulations in the chapter on theoretical and conceptual framework. It has now been established that a relationship exists between rental income, operating expenses and the maintenance programmes for rental properties. The trend of operating expenses increasing faster than rental income is capable of furstrating the investment objectives of the rental property investor. Our analysis has introduced some relevant factors which may also influence regularity of rental income. Such factors include the possession of active tenant delinquent eviction programme, mode of making demands for payment of rents and treatment of delinquent tenants.

As noted earlier, part two of this chapter focusses on the informal consumer agent for purpose of comparative and balanced analysis of consumer housing agency business. Our focus is on landlords of rented accommodation in high density residential sub-market of Ibadan.

6.22 SUMMARY OF CHAPTER

It will be recalled that in our chapter on background and objectives of study, we had proposed an analysis of the rental housing marketing strategies of consumer housing agents as one of the objectives of this

study. The foregoing chapter has achieved this objective. For the m medium density and low density residential esubmarkets, we have examined the activities and strategies of the formal consumer housing agents.

In the chapter which follows, we will proceed from our descriptive approach so far to give room for more rigorous and analytic depth to be given to all relevant variables we have identified in the course of this study. This is because, so far, our descriptive approach has not uncovered the factors affecting rental levels and the relationship existing among the variables. This will be the focus of the next chapter.

CHAPTER SEVEN

ANALYSIS OF THE FACTORS INFLUENCING RENTAL LEVELS IN THE RESIDENTIAL SUBMARKETS

7.1 INTRODUCTION

In Chapters Five and Six, we examined the distributional characteristics of rental households and rental property management strategies respectively. The analysis thus far has not uncovered the factors influencing the rental levels in the different submarkets. In this chapter, we will analyze several variables that may at least on the surface appear to affect the amount of rent that tenants pay and trends in the rental levels of various categories. In addition, an attempt will be made to present a model of housing rent determinants based on these variables. Data on the rental levels of the different categories of rental properties in the different submarkets will be used as a starting point in the analysis. The possible rent determinant factors that are examined include:

(i) Income of tenant

(ii) Lending Rate

(iii) Inflation rate

(iv) Amount of currency in circulation

(v) Construction cost index of residential property.

(vi) Average price index of building materials.

It is conceeded that several other variables can be added to the above list. This study however, will consider the effects of the above variables (only) on the level housing rents. The pertinent questions here are: Are there any relationships between the variables ? How significant are there relationships ? To what

extent are the hypotheses formulated in chapter two validated ? What is the relative importance of these variables? This chapter will hopefully address there instructive questions.

The methodology adopted here involves the use of correlation and multiple regression analysis. In this procedure, the influence of the variables on rent will be assessed by examining the statistical relationship between rent and the explanatory variables. It is noteworthy that the selection of the explanatory variables as indicated earlier reflects the hypotheses formulated for validation purposes are in turn, derived from the postulated relationships between rent and the explanatory variables.

7.2 HYPOTHESES RESTATED

The following hypotheses which were hitherto formulated under our chapter on the theoretical and conceptual framework and which are relevant to the problem being investigated and the objectives set to be accomplished in this study are hereby restated.

(1) That rent is positively influenced by the income of the tenant

(2) The lending rate of financial institutions is directly related to rent

(3) Inflation rate has a positive relationship to rent.

(4) Rent is positively influenced by the amount of currency in circulation.

(5) There is direct relationship between average price index of building materials rent.

(6) Rent has direct relationship to construction cost index.

7.3 FRAMEWORK FOR STATISTICAL ANALYSIS

With a view to gaining an understanding of the factors which determine rent as highlighted in our earlier discussion and to

test the hypotheses formulated, as restated above, the following variables were subjected to correlation and multiple regression analysis:

* Rent (Y) - Dependent Variable
* Income of rental household (explanatory variable X_1)
* Construction cost index (explanatory variable X_2)
* Average price index of building materials (explanatory variable X_3).
* Total currency in circulation (explanatory variabl X_4)
* Lending Rate (explanatory variable X_5)
* Inflation rate (explanatory variable X_6)

7.4 TREND ANALYSIS

Recent economic downturn has called for more critical assessment and analysis of the impact that economic changes have on property development most especially the impact of the economic changes on the urban housing market. As noted at the begining of this thesis, the country's economic predicament and government efforts over the years to solve the problem have in various ways affected the construction industry in general and residential property investment in particular. It is imperative to study the trends in rental values of residential properties because such a study will provide understanding of the property market in the area of study by letting potential tenants know before taking up tenancy or lease agreement the periodic rental obligation he will be expected to fulfill.

Also, the understanding of the trends in rental value will equip the estate surveyor and valuer in carrying out valuation and viability appraisals in the area. With the understanding of the

pattern of rental value, he will be able to forecast the future of income flow. Furthermore, this trend is very important to the financial institution in giving out loans on mortgage, since the rental evidence goes a long way in determining whether the stream of income on the subject property is capable of meeting the interest on the loan and if the mortgagor (borrower) defaults, the capitalised rent can pay back the original or outstanding loan advanced. Apart from the benefits to participants of the rental housing market, an understanding of the trends in rental values can serve as a gound-work for further studies in the area of residential development since economy is highly dynamic.

7.5 Rental Price Level and Residential Districts

Since housing is not a homogeneous commodity but rather exist as a bundle of services, the quantity of housing services rendered at any particular time is bound to differ across a given housing stock. This variation in the level of housing services is invariably accompanied by differential rental price levels. For this reason therefore, the rental price level in each residential submarket used for this study will be presented differently. The monthly rental price levels paid by households for residential accommodation is presented in Table 7.1. The purpose of the table is to show the relationships that exist between rental price levels and the physical/structural variations in dwelling units among and within the residential districts.

In the high density residential district neighbourhood), Table 7.1 shows rental levels for 1980-1994 for three different categories of rental properties normally characteristic of high density areas viz: 2 bedroom and 3-bedroom flats and tenement

Table 7.1: RENTAL VARIATIONS WITHIN IBADAN CITY (Rentals in Naira Per Annum (1980 - 1994) for Categories of Rental Housing in the Residential Submarkets).

(High Density Area)

Year	3-Bedroom Flat	2-Bedroom Flat	Tenement House
1980	1,560	1,200	720
1981	1,680	1,200	720
1982	1,680	1,200	720
1983	1,680	1,440	960
1984	1,680	1,440	960
1985	1,800	1,440	960
1986	1,800	1,560	960
1987	1,800	1,560	1,200
1988	2,400	1,800	1,200
1989	2,400	1,800	1,200
1990	2,400	1,800	1,200
1991	2,400	1,800	1,440
1992	3,000	2,400	1,440
1993	3,600	3,000	1,440
1994	3,600	3,000	1,440

Source: Author's Field Survey

houses. The highest rental level paid is for three bedroom flat that is, ₦3,600 per annum (₦300 per month), while the lowest is ₦1,440 per annum (₦60 per month) for tenement house. For the fifteen year period, there is increase of ₦2,040 in the annual rental price for 3 bedroom flats.representing 56.7% increase, an increase of ₦1,800 in the annual rental price of 2-bedroom flat representing 60% increase and an increase of ₦720 in the annual rental price of tenement houses representing 100% increase. The table also shows that for the three categories of properties in this distict, rent has been on the increase over the years with no fluctuation at all during the 14-year period. This finding is not surprising taking into consideration that this district is characterised with non-luxury rental accommodation that are in high demand among the majority of urban salary and wage earning classes. The table also reveals that rental price levels of 3-bedroom and 2-bedroom flats stabilised before the introduction of the Structural Adjustment Programme and increased steadily thereafter. Since SAP, rental price level of 3-bedroom flat has increased by ₦1,800 representing 100% increase; rental price of 2 bedroom flat has increased by ₦1,440 representing 48% increase while rental price level of tenement house has increased by ₦240 representing 16.7% increase. This shows that in this residential district, SAP has affected high quality properties more than the low quality ones.

In the medium density residential district, Table 7.2 shows rental levels for 1980-1994 for five categories of properties in this district viz: tenement house, 2-bedroom flat, 3-bedroom flat, Duplex, Duplex Mansion and Bungalow. The highest rental level paid is for bungalow, that is, ₦10,000 per annum while the lowest is ₦1,440 per annum for tenement house. For the fifteen year period, there is an increase of ₦2,000 in the annual rental price of bungalow

Table 7.2: Medium Density Residential Area

Year	Bungalow	Duplex Mansion	Dyplex	3-Bedroom Flat	2-Bedroom Flat	Tenement House
1980	8,000	7,000	6,000	3,000	1,560	720
1981	8,000	7,000	5,000	3,000	1,560	720
1982	8,000	6,000	5,000	2,400	1,560	720
1983	7,000	6,000	5,000	2,400	1,200	960
1984	7,000	6,000	4,000	2,400	1,200	960
1985	6,000	5,000	4,000	2,400	1,200	960
1986	6,000	5,000	4,000	2,400	1,200	960
1987	8,000	6,000	5,000	3,000	1,560	1,200
1988	8,000	6,000	5,000	3,000	1,560	1,200
1989	8,000	7,000	5,000	3,000	1,800	1,440
1990	8,000	7,000	5,000	3,000	1,800	1,440
1991	8,000	7,000	5,000	3,000	2,400	1,440
1992	8,000	8,000	6,000	3,000	2,400	1,440
1993	10,000	8,000	6,000	3,600	3,000	1,440
1994	10,000	9,000	6,000	4,800	3,600	1,440

Source: Author's Field Data

representing an increase of 20%; an increase of ₦2,000 in the annual rental price of Duplex mansion representing 22.2% increase; duplex property maintains its 1980 level at ₦6,000 per annum. It is notew worthy that the rental price of duplex properties in this district has been fluctuating from 1980 till the inception of SAP after which it rose and stabilised steadily. For the 3-bedroom flat there is an increase of ₦1,800 from its 1980 level representing 37.5% increase; and increase of ₦2,040 in the annual rental price of 2-bedroom flat representing 56.7% increase and an increase of ₦720 in the annual rental price of tenement representing 100% increase.

For duplex mansion, there is a variation of ₦2,000 in the annual rental price level representing 22.2%. For the five categories of rental properties, annual rental price levels rose steadily since inception of SAP. However, for tenement properties in particular, the increase has been steady over the fifteen year period. For Bungalow, there has been an increase of ₦4,000 over the 1986 level representing 40% increase, for duplex mansion there has been an increase of ₦4,000 since SAP representing 33.3% increase; for duplex, there has bee n an increase of ₦2,000 representing 33.3% increase, for 3-bedroom flat there has been an increase of ₦2,400 representing 100%; for 2-bedroom flat there has been an increase of ₦2,040 representing 56.7% increase and for tenement house, there has been an increase of ₦240 representing 16.7%.

In the high density residential area, the highest annual rental paid is for duplex mansion, that is ₦20,000 per annum while the lowest is ₦7,200 for 3-bedroom flat. As noted in chapter three, the low density district is characterised with luxury accommodation. Hence the absence of 2-bedroom flats and tenements is understandable.

Table 7.3: Low Density Residential Area

Year	Bungalow	Duplex Mansionnette	Duplex	3-Bedroom Flat
1980	14,000	14,000	6,000	3,000
1981	16,000	16,000	6,000	3,600
1982	16,000	16,000	7,000	3,600
1983	16,000	16,000	8,000	3,000
1984	14,000	14,000	8,000	4,000
1985	12,000	13,000	8,000	4,000
1986	12,000	13,000	8,000	4,000
1987	14,000	15,000	8,000	4,000
1988	14,000	15,000	9,000	4,000
1989	16,000	18,000	9,000	4,000
1990	16,000	18,000	9,000	4,000
1991	16,000	18,000	9,000	5,000
1992	16,000	19,000	10,000	6,000
1993	18,000	20,000	12,000	6,000
1994	18,000	20,000	12,000	7,200

Source: Author's Field Data, 1994.

Table 7.4: Percentage Variation in Rental Price Levels (1980-1994)

	1980	1994	Variation	Percentage Variation	
Tenement	780	1,440	720	100%	
2 Bedroom Flat	1,200	3,000	1,800	60%	High Density
3 Bedroom Flat	1,560	3,600	2,040	56.7%	
Tenement	720	1,440	720	100%	
2 Bedroom Flat	1,560	3,600	2,040	56.7%	
3 Bedroom Flat	3,000	4,800	1,800	37.5%	Medium Density
Duplex	6,000	6,000	-	-	
Duplex Mansion	7,000	9,000	2,000	22.2%	
Bungalow	8,000	10,000	2,000	20%	
3 Bedroom Flat	3,000	7,200	4,200	58.3%	
Duplex	6,000	12,000	6,000	100%	
Duplex Mansion	14,000	20,000	6,000	30%	
Bungalow	14,000	18,000	4,000	22.2%	

Source: Analysis of Field Data

Table 7.5: Percentage Variation in Rental Price Levels Since SAP (1986-1994)

Type of Property	Rental Price Level Per Annum (1986)	Rental Price Level Per Annum (1994)	Variation	Percentage Variation	District
2-Bedroom Flat	1,560	3,000	1,440	48%	High Density
Tenement	1,200	1,400	240	16.7%	
3-Bedroom Flat	1,800	3,600	1,800	100%	
Tenement	720	1,440	720	100%	Medium Density
2-Bedroom Flat	1,200	3,600	2,400	56.7%	
3-Bedroom Flat	4,800	2,400	2,400	100%	
Duplex	4,000	6,000	2,000	33.3%	
Duplex Mansion	5,000	9,000	4,000	33.3%	
Bungalow	6,000	10,000	4,000	40%	
3-Bedroom Flat	4,000	7,200	3,200	44.4%	Low Density
Duplex	8,000	12,000	4,000	33.3%	
Duplex Mansion	13,000	20,000	7,000	35%	
Bungalow	12,000	18,000	6,000	33.3%	

Source: Analysis of Field Data

For the fifteen year period, there is a variation of ₦4,000 in the annual rental price of bungalow representing 22.2% increase, an increase of ₦6,000 in the annual rental price of duplex mansion representing 30% increase; an increase of ₦6,000 in the annual rental of duplex representing 100% increase and an increase of ₦4,200 in the annual rental price of 3-bedroom flat representing 58.3% increase. The table shows that the rental price of duplex has been rising steadily over the fifteen year period - same for 3-bedroom flat except the fall in 1983. For bungalow and duplex mansion however, the price level has been fluctuating until the inception of SAP and rose steadily thereon.

For bungalow, there has been a variation of ₦6,000 on the annual rental since SAP representing 33.3% increase. For duplex mansion, there has been an increase of ₦7,000 in the annual rental price level representing 35% increase. For duplex, there has been an increase of ₦4,000 representing 33.3% increase while for 3-bedroom flat, there has been an increase of ₦3,200 representing 44.4%. See Tables 7.4 and 7.5 for further analysis of these variations. Also see appendix.

7.5 BIVARIATE ANALYSIS OF FACTORS INFLUENCING RENTAL LEVELS

7.5.1 Test 1: Rental Value Against Income of Rental Households

Test 1 is based on the hypothesis that there is a positive relationship between rental value and income of rental household. Using the values of rent (Y) and income (X_1), the correction (R) obtained is 0.969 at 5% significance level. This shows that there is a very strong positive relationship between the two

variables. That is, high rental value being allied with high income of rental household and low rental value being associated with low income level. In regression terms, the R^2 for the two variables is 0.939. The regression therefore shows that while the Y-intercept is - 88.28764, the degree of association reflects a gradient of .120569. The least square regression line can therefore be expressed as:

$$Y = 88.28764 + .120569X_1$$

This equation confirms the positive relationship between the two variables. As will be seen later in our regression results, it is the variable, i.e. the income level of rental household that exerts the strongest positive influence on rental levels compared with the remaining free variables that are examined later.

These results corroborate the findings of some scholars as regard the type of relationships that exist between income, expenditure and housing rent vis-a-vis residential differentiation. For example, Becker (1965) postulated that the relationship between household residential location and housing rent is constrained by what is termed the household's money income and expenditure. Also Deleeuw and Ekanem (1973), Turner (1972) and Muth (1978), were of the opinion that renter household respond strongly to real income and to the price of housing services relative to their expenditure on other goods. Also, Heilbrun (1973) argued that the principal factors shaping a family's demand for housing are income and family size. The higher its income, the more it will spend on housing in terms of rent paid. The response of housing expenditures to change in the level of income is measured by the income elasticity of demand, which is defined as percentage change in expenditure divided by the percentage change in income. In an important theoretical and empirical analysis of urban housing, Muth found that the income elasticities of demand for housing "tend to cluster around

a value just slightly greater than +1. In another comprehensive analysis, Reid (19) estimated the income elasticity of demand for housing at between +1.5 and +2.0.

In the same study, she found that the income elasticity of consumption of rooms per person was only about +0.5. This means that although consumption of space rises as family income goes up, the amount spent on increased space can account for only a minor share of the increase in family expenditure that occurs as income rises. The major share must therefore be accounted for by a rise in the quality of the space consumed - i.e. by a rise in rent paid per room. In short, these figures imply that the income elasticity of demand for housing quality is quite high. As Reid explains it:

> "For several decades high quality housing appears to have been an important feature distinquishing the consumption of the rich from that of the poor. Housing improves markedly as one goes up the economic hierarchy of consumers - much more than does food and clothing and probably even more than automobiles .... with housing as with food, increase in quality rather than sheer quantity accounts for most of the rise in consumption with normal income".

The result of our analysis above confirms Muth's findings which also directly confirm the effects of income on housing quality that are only implied in Reid's study. It is noteworthy, however, that the strong relationship between housing quality and income has both encouraging and discouraging implications for the struggle to improve housing conditions in Nigeria. On the one hand, it means that the secular rise in living standards can be expected to reduce markedly the incidence of substandard housing for the nation as a whole. On the other hand, it also suggests that substandard housing is likely to persis where poverty persists. Therefore, central cities, with

their concentrations of low income population, will find it especially difficult to eliminate inadequate housing.

7.5.2 Test 2: Rental Values Against Construction Cost Index of Residential Properties

Test 4 is based on the hypothesis that the cost of construction of rental properties directly influences the rental levels. From the values of Y and X_2 imputed, the correlation coefficient (R) obtained is 0.898 at 5% significance level for tenement properties in the high density residential neighbourhood; R^2 obtained is 0.807.

The above results shows that there is strong positive correlation between construction cost index of residential properties and rental values of tenement associated with high rental levels and low construction cost being associated with low rental levels. The degree of association of the two variables shows that any addition of ₦1,000 on construction cost would result in an increase of ₦356.14 in rental level. The line of best fit taken from the evidence can be expressed as: $Y = 854.4588 + .3561484X_2$

For 3-Bedroom flat properties in the medium density the correlation coefficient (R) obtained is 0.841 at 5% significance level. R^2 obtained is 0.707 and the t-value is 0.23. The regression equation is: $Y = 2467.277 + .8173978X_2$

For duplex properties, R is 0.891 at 5% significance level; $R^2 = 0.784$

The regression equation can be expressed thus:

$$Y = 6907.055 + 2.321044X_2$$

From these results, we can see that this variable (construction cost) is second only to income in terms of its strength of influence on rental levels. Secondly, the influence of construction cost is

strongest on tenement properties followed by duplex properties and 3-bedroom flat (that is 0.898,0891 and 0.841 respectively).

7.5.3 Test 3: Rental Values Against Average Price Index of Building Materials

Here, it is hypothesized that there is a direct relationship between average price index of building materials and rental levels of residential properties. Using the values of rent (Y) and average price index of building materials (X_3), the correlation coefficient (R) obtained is 0.867, for tenement properties 5% significance level. This suggests a strong positive relationship between the two variables, that is high prices of building materials being associated with high rental levels of residential properties and low rental prices of building materials being associated with low rental price levels; R^2 obtained is 0.752. The regression therefore shows that while the Y-intercept is 871.59, the degree of association reflects a gradient of 2.39. The line of best fit taken from the evidence can be expressed as: $Y = 871.5925 + 2.385216X_3$

In the same manner, for 3-bedroom flat in the medium density, the correlation coefficient R obtained is 0.871 at 5% significance level; R^2 is 0.758. This shows that the influence is stronger on 3-bedroom flat than on tenement properties. The regression equation can be expressed thus: $Y = 2467.767 + 5.872877X_3$.

The equation confirms the strong positive relationship. We can however see that the average price of building materials rank third in terms of its strength in influencing rental levels.

7.5.4 Test 4: Rental Values Against Total Currency in Circulation

It is hypothesized that money supply, as measured by the total currency in circulation, has a positive relationship to the rental level. From the values of rent (Y) and total currency in circulation (X_4) imputed, the correlation coefficient (R) obtained is 0.833 for tenement properties at 5% significance level. This shows that there is a strong positive correlation between rental level and money supply R^2 obtained is 0.694. The regression equation can thus be expressed as: $Y = 843.5311 + 2.178X_4$.

For 3-bedroom flat properties, the correlation coefficient (R) is 0.810 (slightly lower than for tenement) at 5% significance level; R^2 is 0.657. The regression equation can be expressed as:

$$Y = 2418.786 + 5.19X_4.$$

For duplex properties, $R = 0.819$ (slightly greater than for 3-bedroom flat and lower than for tenement), $R^2 = 0.670$. The regression equation is $Y = 6921.097 + .1404307X_4$. From our regression results, it is obvious that this variable is important in that it ranks fourth among the six explanatory variables. Secondly, the influence of this variable is strongest on tenement properties followed by duplex and then 3-bedroom flat properties (that is 0.833, 0.819 and 0.810 respectively).

7.5.5 Test 5: Rental Values Against Lending Rate

Here we hypothesize that the lending rate of financial institutions is directly related to rental levels. Using the value of rent (Y) and lending rate (X_5), the correlation coefficient (R) obtained is 0.796 at 5% significance level, R^2 obtained is 0.633 for tenement properties in an High Density Area. This shows that there is strong positive correlation between lending rate of financial institutions

and rental levels; that is high rental level's being associated with high lending rates and low rental levels being associated with low lending rates. The degree of association of these two variables shows that any 1 per cent increase in lending rate would result in an increase of ₦43.68 rental value. The line of best fit taken from the evidence can be expressed as: $Y = 345.3556 + 43.68394X_5$. Also for 3-Bedroom flat properties in the medium density neighbourhood, the correlation coefficient (R) obtained is 0.522 at 5% significance level, R^2 obtained is 0.304, The equation for the relationship can be expressed as: $Y = 1749.767 + 74.29363X_5$. For duplex properties in the low density area, the correlation coefficient (R) obtained is 0.699 at 5% significance level; R^2 obtained is 0.489. The regression equation can be expressed as:

$$Y = 4225.192 + 251.9084X_5$$

This means that for duplex properties in the low density area, any increase of 1 per cent in the lending rate will result in an increase of ₦251.90 in rental level. In a case of zero-interest rate, this means, put simply, that rental value of duplex properties will be at its lowest i.e. ₦4,225.19. From these figures, our hypothesis is confirmed that the lending rate has positive influence on rental levels. However, the influence of lending rate is weaker than four other variables viz: income, construction cost, Average price index of building materials and total currency in circulation. Further the regression results shows that the influence of lending rate is stronger on the rental levels of duplex, followed by tenement properties and 3-Bedroom flat respectively (that is 0.699, 0.633 and 0.522 respectively).

7.5.6 Test 6: Rental Values Against Inflation Rate

It is hypothesized that inflation rate has a positive relationship with rental levels. From the values of Y and X_6 imputed, the

correlation coefficient (R) derived is 0.473 at 0.10 significance level; R^2 obtained is 0.223 for tenement properties in high density area. We can draw similar conclusions as in earlier tests, that is, there is positive correlation (albeit weak between) rental levels and inflation rate-high rental levels being asscciated with high inflation rate and low rental levels being associated with low inflation rate. Their degree of association shows that any addition of 1 per cent to the inflation rate would result in an increase of ₦7.75 in rental value. The least square regression line can therefore be expressed as: $Y = 926.2092 + 7.75204X_6$

For 3-Bedroom flat properties in the medium density neighbourhood, the corre lation coefficient (R) obtained is 0.461 at 0.10 significance level; R^2 obtained is 0.213. This result shows that the influence of inflation rate is slightly stronger on the rental levels of tenement properties than on rental level of 3-bedroom flat properties. The Y-intercept is 2614.621 while the degree of association reflects a gradient of 18.55. Put simply this means that when inflation rate is zero, rental value of 3-bedroom properties is at its lowest, ₦2,614.62 and for every 1 percent increase in inflation rate; is an increase of ₦18.55 in rental value is expected. The least square regression line can thus be expressed as $Y = 2614.621 + 18.54851X_6$.

For duplex properties in the low density area, the correlation coefficient (R) obtained is 0.594 at 0.10 significance level; R^2 obtained is 0.352. The regression equation is: $Y = 7134.832 + 63.8814X_6$

From the results for the three submarkets, the following observations can be made. In the first place, inflation rate proves to be the weakest factor in explaining variation in rental levels among the six variables considered in this study. Secondly, inflation rate has strongest influence on duplex properties followed by tenement proper-

ties and 3-bedroom flat properties (that is, 0.596, 0.473 and 0.461 respectively). This is exactly the same pattern compared with our analysis of lending rate. That is, the influence of lending rate is strongest on duplex, followed by tenement properties and the 3-bedroom flat.

From the values of the correlation coefficients, one could infer that inflation rate may be directly related to rental value but not to a high degree. Defining what constitutes a high degree is subjective and is the responsibility of the researcher. The literature supports the conclusion that there may be "some possibility of correlation" when the correlation coefficient (R) is between .30 and .60 (Balsey, 1970). Therefore we concur with the inference that inflation rate may be related to rental value. This may shed some light on other relationships.

The above analysis shows that in the reside ntial neighbourhoods, rental level is influenced by a number of factors principally income of rental households, lending rate of financial institutions, inflation rate, construction cost index and average price index of building materials. However, within the rental submarkets and for categories of properties, the form of influence varies. Although the correlation coefficients as interpreted above generally represent the strength and direction of association between the variables, great caution needs to be exercised in interpreting. These coefficients because such deductions are subject to the limitation of statistical generalisation. We will now proceed further to regress the dependent variable against the independent variables in the next section.

The purposes will remain the same. We still want to contract an equation that will enable us to estimate values of the criterion variable, but now from given values of all these predictor variables. And we still want to measure the closeness of the estimated relation-

ship. Our objective in combining the explantory variables is basic - to improve our predictions of the criterion variable.

7.6 MULTIPLE REGRESSION ANALYSIS

Our correlation analysis has enabled us to validate our hypotheses. However, due consideration must be given to the fact that considerable inter-relationships exist between the explanatory variables. The essence of the correlation analysis has been to provide an initial view of the variables. A multiple regression model was employed to allow for simultaneous variation in the variables used for analysis. Such analysis is necessary partly for the purpose of estimating the overall variation accounted for by all the independent variables together and more importantly for the purpose of assessing the relative importance of influence of each independent variable. The strength of the relationship of each hypothesized independent variables can be assessed by this procedure. It also gives considerable rigour to the analysis, which may lead to further clasification of the postulated hypotheses.

7.6.1 Model Specification

To gain more understanding of the specific factors influencing rent in the residential submarkets, a functional relationship was postulated between rent and the explanatory variables conceptualized in chapter four. The explanatory variables are:

(1) Income of rental household (Variable X_1)

(2) Construction cost index (Variable X_2)

(3) Average price index of building materials (Variable X_3)

(4) Amount of Currency in circulation (Variable

(5) Lending Rate (Variable X_2)

(6) Inflation rate (Variable X_3)

These variables are incorporated into a stepwise multiple regression model of the form below:

$$Y_1 = f\ (X_1,\ X_2,\ X_3,\ X_4,\ X_5,\ U) \qquad \ldots\ldots\ \text{Eq. No.(1)}$$

where Y_1 is the rent as measured by the contract rent

X_1, X_2, X_3, X_4, and X_5 are as defined above and U_1 the error term. According to Stopher and Meyburg (1979), the stepwise procedure is a sophisticated process tailored to the usual situation in which independent variables are significantly correlated with each other. One of the most important features of the stepwise regression is that a significant variable which has been added at an earlier stage is examined along with other variables at a later stage and may then be considered insignificant and consequently deleted. At the end of the search, only the most significant variables which account for the largest proportion of the total variance in the dependent variable are retained.

As usual in regression analysis, it is assumed that the error components are (1) Independent (2) have a mean of zero and (3) have the same variance throughout the range of Y values (Theil, 1961). Each of the explanatory variables apart from U was also assumed to be non stochastic. In general multiple regression requires that variables are measured on interval or ratio scale and that the relationships between the variables are linear.

7.6.2 Interpretation of Multiple Regression Analysis Results

7.6.2.1 Test 7

Rental Values Against Income, Construction Cost, Average Price Index of Building Materials, Total Currency in Circulation, Lending Rate and Inflation Rate.

To perform this test, multiple regression model is adopted and the hypothesis is that increase in all these explanatory variables cause increase in rental values.

The result of the regression analysis shows a commulative R^2 value of 0.936 for tenement properties in high density area, 0.819 for 3-bedroom flat in medium density and 0.933 for duplex properties in low density area. Put simply, the regression results show that when all the explanatory variables are at their lowest value (o), the rental value of tenement properties is expected to be ₦807.87, ₦3,046.47 for 3-bedroom flat and the rental value of duplex is expected to be ₦5,065.88.

The print-out shows that the six independent variables - income, construction cost index, average price index of building materials, total currency in circulation, lending rate and inflation rate account for 94% of the variation in rental value of tenement properties in high density area ($R^2 = 0.94$); 82 per cent of the variation in rental value of 3-bedroom flat properties in the medium density area ($R^2 = 0.82$); and 93 per cent of the variation in the rental value of duplex properties in the low density area ($R^2 = 0.93$).

The results indicate that no single variable can be used as an accurate predictor of rental levels. However, utilizing the stepwise variable-inclusion regression procedure (SPSS) we have been able to construct models to explain variations in rental levels in our residential submarkets. These models may also be used to predict the rental value which a particular tenant will pay in a neighbourhood.

As observed by Messner et al (1977), a regression analysis can be used not only to show the relationship between the dependent variable and one or more independent variables, it can also be used to show whether, the relationship could have happened by chance or to test the reliability of that estimate or prediction.

In the light of the above, we can further our analysis by subjecting our regression coefficients to a one-tailed test, since a priori information indicates the direction of the effect of each predetermined variable upon the dependent variable. Under the test, a coefficient must be twice its standard error to regard the coefficient as non-random (Pasoir, 1965). The 0.05 level of significance was considered relevant and is designated by the symbol *. According to Madalla (1978), this is the cut off point normally employed in regression analysis to determine whether or not a coefficient has a meaningful effect.

The predicting equations for the final modesl yielded by the stepwise variable-inclusion regression procedure (SPSS) may be stated as follows:

In the case of High Density Area (Tenement properties)

$$Y_1 = 807.9 + \underset{(0.09)}{0.34X_1}^{*} + \underset{(0.34)}{0.79X_2}^{*} - \underset{(1.90)}{3.43X_3}^{*}$$

$$= \underset{(0.01)}{-0.02X_4}^{*} - \underset{(17.06)}{27.9X_5}^{*} - \underset{(2.12)}{1.46X_6} \quad \text{-Eq}$$

** $R^2 = 0.93$.

** Standard errors are in parentheses.

* Significant at 0.05 level

For Medium density area (3-Bedroom Flat properties).

$$Y_2 = 3046.47 - \underset{(0.39)}{0.48X_1}^{*} + \underset{(1.42)}{0.33X_2}^{*} + \underset{(7.83)}{11.0X_3}^{*}$$

$$- \underset{(0.05)}{0.03X_4}^{*} + \underset{(70.2)}{10.6X_5}^{*} - \underset{(8.72)}{0.29X_6} \quad \text{- Eq.}$$

** $R^2 = 0.82$

** Standard errors are in parentheses.

* Significant at 0.05 level

For low density area (Duplex Properties)

$$Y_3 = 5065.88 + \underset{(0.65)}{0.66X_1}^{*} - \underset{(2.32)}{2.27X_2}^{*} + \underset{(12.8)}{25.7X_3}^{*} - \underset{(0.08)}{0.03X_4}^{*} + \underset{(114.6)}{75.0X_5}^{*} + \underset{(14.2)}{0.22X_6}$$

** $R^2 = 0.93$

** Standard errors are in parentheses

* Significant at 0.05 level.

The linear equation shows that the included regressors explain 93% of the variability in the regress and for high density, 82 per cent for medium density and also 93 percent for low density. All the estimated regression coefficients of X_1, X_2, X_3, X_4, and X_5 in that order were significant at the chosen 5% level.

In our equation (7.) for medium density are (for example) and judging from the significance of the regression coefficients in the said equation, the price of building materials and the lending rate play a significant role in explaining variation in rental levels. It can be seen that the coefficients of these three variables carry positive signs as expected and are significant at 5% level. These findings confirm our hypotheses 2, 3 and 5.

However, the positive signs on the coefficients of X_1, X_4 and X_6 (Income, total currency in circulation and inflation rate is contrary to a priori expectation. This implies that an increase in income, total currency in circulation and inflation rate will lead to decre ase in rental level, all other factors remaining equal. The explanation for this may arise from a wilful trend (underlying preferences) towards home ownership (in other words, a trend away from rental housing) as income, inflation rate and total currency

in circulation increases. Although the inflation rate (X_6) carries a negative sign contrary to expectation, this coefficient is not statistically significant at 0.05 level.

In the equation (7.) for high density area, only two variable are play a significant role in explaining variation in rental level viz: income and cost of construction and both carry positive signs as expected. This confirms our hypothesis 1 and 2. The reason why income is significant here can be related to the level of poverty normally associated with the residents of high density residential neighbourhoods. Price of building materials carries negative sign. Although this is not expected, it is understandable in the snse that building materials are normally locally sourced on this neighbourhood at virtually no substantial cost. Other variables X_4, X_5 and X_6 carries negative signs. Although these are not expected, X_6 is not statistically significant at 0.05% level.

In equation (7.) for low density area, only cost of construction (X_2) and total currency is circulation carry negative signs contrary to expectation. Although these are not expected the coefficients are statistically significant at 0.05 level.

It can be further seen that the most important variable which explains rental variation and statistically significant in the High Density area but least important in the low density area is cost of construction. But in our bivariate analysis, this variable had the highest correlation coefficient (r) for the three submarkets.

In the medium density area, the lending rate (X_5) is the most important variable and statistically significant while it is the least important variable in the high density area.

For the low density area, the most important variable is X_5 (lending rate) but the least important is the high density areas as it ranks fourth there.

In the light of the above interpretations of the correlation and regression analysis, we may now present our findings in terms of the validation of our original hypotheses.

(1) That rent is directly influenced by income is confirmed in high and low density areas but not upheld in the medium density.

(2) That rent is positively influenced by cost of construction is not confirmed only in low density area.

(3) That average price index of building materials is directly related to rent is not confirmed only in the high density area.

(4) That total currency in circulation has positive influence on rental levels is not confirmed in all the three submarkets.

(5) That lending rate has a direct relationship with rent is confirmed in the medium and low density areas but not upheld in the high density area.

(6) That inflation rate is directly related to rental levels is only confirmed in the low density area.

7.7 Concluding Remarks on the Empirical Results

In concluding this section of the analysis, it must be emphasized that we have been largely concerned with a restricted set of variables that may be regarded as "technical" rather than with a larger set of potentially relevant variables as earlier conceptualised. But we have had to contend with these variables due to limitations posed by data availability. Although the explanatory powers of the variables are high in the submarkets, the inclusion of additional independent variables (such as operating expenses, construction cost per square metre, length of lease term, etc.) would presumably have improved the explanatory power.

Besides the exclusion of certain pertinent variables, there are also problems in establishing appropriate epistemic correlations between theoretical concept and the surrogates.

There is some measure of consensus in the social science literature that the operationalisations of concepts is problematic. This is more so in a situation of uncertainty where these is no clear cut or well grounded theory to enable the researcher decide on relevant of these problems, we cannot be sure that the surrogates employed here are the most appropriate for the concepts postulated in chapter two. This state of affairs might partially have influenced the kind of empirical results obtained in this chapter. The obvious implications of the issues raised here is that we need to treat the results with some caution. Being a pioneering work in this area implies that the empirical results should be seen as tentative and hoping that this will serve as a basis for further theoretical and empirical debate.

In spite of the problems highlighted, the empirical results can still be very useful in shedding some light on the rental housing market and rent determination in Nigeria.

In the next chapter, an attempt will be made to focuss on policy recommendations which will be based on the findings of this study.

CHAPTER EIGHT

POLICY IMPLICATIONS OF FINDINGS AND RECOMMENDATIONS

8.1 INTRODUCTION

Policy makers in Nigeria include all persons (individuals and corporate) ministries and parastatals that make some input into any policy decision. It is in this broad concept of policy makers that the challenges of the current state of Rental Housing delivery system in Nigeria are examined.

The effects of government policy exercise a profound impact on investment decisions in the property market. Thus the achievement of the rental housing sector is entirely determined by a whole set of government policies.

It is evident from the study that majority of urban dwellers engage either in the public or private sector find rental housing an asset, a sort of security that is universally accepted as one of the most basic needs with a profound impact on the lifestyle, health, and happiness which are concomitant to productivity.

The time has come for the government to examine the dimensions of rental housing policy options in all its ramifications as component of a balanced National Housing Policy. That the goal of home-ownership (at least among the low and the so called middle class) is seemingly unattainable is not an exaggeration. The findings of this study raise issues which have vital policy implications for the rental housing market in Nigeria. These issues are concerned with:

(1) The underdeveloped nature of rental housing market institutions in Nigeria.

(2) Abating the spiralling prices of rental accommodations.

These issues are concerned with the following pillars of the housing market: land, finance, building materials, labour, infrastructural facilities, Research on local building materials and management and maintenance. We will now proceed to elaborate on each of these pillars of the housing market.

8.2 FACILITATING LAND ACQUISITION FOR HOUSING DEVELOPMENT

There is need for a forceful and purposeful policy for acquiring land for housing development in Nigeria. It has been argued that Nigeria is ill-prepared for the coming dramatic expansion of her settlement and the subsequent demand for land, since she does not possess appropriate legislation, policies, procedures, institutions, or financial resources to ensure that land will be supplied for settlement development at the pace and on the scale required. The limited capacity to meet the complexity of the policy challenge posed by the land issue/settlement policy will become increasingly severe in the coming years unless the government adopts immediate measures to clear it.

These measures must emphasize efficient land management and ensure that future governmental interventions are on the scale required for the land market to function efficiently and deliver land into the hands of large developers, small builders, building co-operatives, individual house owners, and all the other agents producing housing. Moreover, public authorities must strengthen their capacity to acquire land for the construction of public buildings and physical and social infrastructure on the scale that will be required over the next decade.

Another dimension of the problem of land acquisition for residential development is the issue of prohibitive price. As a product of three decades of rapid urban growth, central city locations have enormously increased in price. Sites have become too expensive for low-

income residential occupancy, and great pressure has developed to expel existing residents and activities. Most city centres are undergoing a process of densification, primarily reflecting skyrocketing demand for residential and commercial space and office use which itself is the result of rapid economic growth and development.

Despite the purported ban on the sale of land by any person by the Land Use Decree, sites ripe for development are never obtained free of charge anywhere in Nigeria. In Lagos State, a plot of land measuring 18m x 45m (60 feet x 150 feet) in Ikeja sells for between ₦500,000 - ₦1 million in the open market. In Central Lagos, a plot of land measuring 18m x 36m (60 feet x120 feet) on Broad Street, sells for between ₦6 million and ₦8 million in the open market. In Yaba, a plot of land measuring 18m x 36m (60 feet x 120 feet) sells for between ₦200,000 and ₦500,000. In Enugu, a plot of land measuring 30m x 66m within Okpara and Ogui Road Junction sells for between ₦150,000 and ₦300,000. In Uwani Area of Enugu, a plot of land measuring 18m x 36m (60 feet x 120 feet) sells for between ₦70,000 and ₦160,000 in the open market (Ughamadu, 1993).

It is clear that the government cannot assume a passive attitude towards the issue of land supply in the years ahead. With supply tight, demand high and urban growth continuing, government must establish progresive and efficient enabling mechanism which will ensure land delivery as needed.

There have been persistent calls by primary mortgage finance institutions for immediate abrogation of the Land Use Decree No. 6 of 1978 in the interest of mortgage operators. While the decree has been lauded for easing the tension over land ownership in the country it has also been repeatedly attacked on account of the bureaucracy and other bottlenecks resulting from its implementation. These obstacles

have considerably reduced the pace of land allocation to private and mortgage developers.

The government should streamline and unify the procedure for obtaining consent throughout the Federation. In essence, the Land Use Decree should be reviewed to allow the state governor to delegate some of his powers of consent to other responsible state authorities. Specifically, the decree should grant the land registry more powers to undertake this function. This would reduce the bureaucratic bottleneck and quicken the pace of the issuance of Certificate of Occupancy to credible land developers.

8.3 MOBILISING ADEQUATE FINANCE FOR HOUSING DEVELOPMENT AND REDUCING THE COST OF FINANCE

It has been established in this study that although there are several other dimensions of the housing problem, the issue of finance is very critical. The general objective of a housing finance policy is to increase availability of financial resources for housing development particularly for the development of low-income housing. While approaches to financing the different components of housing differ widely, the three basic issues that financial resources have to address are:

1. Mobilisation of financial resources on a sustainable basis;
2. Institutional arrangement to channel resources into housing development;
3. Specific mechanisms and conditions to finance housing for the low income group.

The loopholes impeding the operation of the National Housing Fund Decree No. 3 of 1992 should be rectified in order to make it workable and attractive to its major contributors (banks and inssurance

companies). The Federal Government may have to look at the entire concept of the National Housing Fund (NHF) with a view to bringing it in line with the tenets of deregulation, monetisation and individual saving. The government can make the shelter question more realistic and implementable by allowing the individual to choose in which mortgage bank to put his NHF contributions while the Federal Mortgage Bank of Nigeria (FMBN) plays the umpire to make sure that the mortgage firm does not cheat the individual. Such an arrangement will bring the shelter nearer to the individual at a lower cost. Furthermore, mortgage repayments payable on housing loans should be made deductible from tax. This facility should, however, be limited to only two residential houses per person so as to avoid abuse of the privilege by speculators.

The aim of establishing the primary mortgage institutions would be defeated if cheap and adequate funds are not made available to them through the disbursement of the NHF for on-leading to members of the public. A situation where the primary mortgage institutions are allowed to source their funds in the market does not augur well for housing development because the interest rates which the credits will attract not encourage borrowers to borrow and build. The system should be that a borrower pays fixed rate of interest throughout the tenure of the loan.

In addition to making cheap funds available to the primary mortgage institutions, the apex mortgage bank should properly police the institutions to ensure that they did not divert funds meant for housing purposes to areas where the returns could be higher.

The operators of primary mortgage institutions must realise that the constraints of the Land Use Decree are merely a part of the problems affecting the housing delivery system in the country. It

is imperative that mortgage finance operators, rather than call for the abrogation of the Land Use Decree, should work out the details and modalities that would assist the government, the organised private sector, manufacturers of building materials, as well as the Federal Mortgage Bank to comprehensively review the relevant laws as well as monetary and fiscal policy measures to correct the inherently defective housing delivery system.

In view of their direct involvement in housing construction activities, mortgage institutions should exchange current information and data with the producers of basic building materials. This would ensure that adequate steps are taken by the manufacturers to continuously determine the production and consumption pattern for basic building materials. It is also important to help identify new local raw materials available for the manufacture of required building materials. This would raise the level of self sufficiency and reduce the cost of construction.

The Federal Government should work out modalities for the establishment of a Mortgage Insurance Scheme that will provide cover against the risk of default in mortgage repayments. The facility will make mortgage financing more secure and more marketable.

8.4 DEVELOPING LOCAL BUILDING MATERIAL RESOURCES

The use of local building materials should be encouraged. Government should give greater encouragement to Universities and other Research Institutes for researches aimed at local sourcing of building materials. Government should place priority on the establishment of factories for the manufacture of building materials using local raw materials. Nigeria should also give priority to

its petro-chemical industry and also explore the plastic option in the construction industry as it has been successfully done in case of the plastic houses in Mexico.

Nigeria is well endowed with natural resources that is often bewildering but given all these we are still largely a country of importers. A situation whereby most of the elements used in construction are still being imported must be decried. For the target of mass housing for all to be met, there is the urgent need for looking inwards. A simple domestic two storey building does not need to have a concrete floor. Timber flooring is adequate, cheaper and functional. Raw Materials Research and Development Council (RMRDC) had done a lot of work on possible local alternatives. We need to start experimenting with them.

8.5 REDUCING COSTS THROUGH CHEAP AND FUNCTIONAL DESIGNS

There is the need to opt for cheap and functional design. Nigerians always have penchant for unnecessary display of affluence. This regrettably has been entrenched in our houses just as is prevalent with cars. There are abundant evidence of over-designing of housing projects with attendant consequence on finance. Our designers should therefore be more cost conscious. There is need to place a cost ceiling on all housing projects before they are embarked upon.

Housing design standards in the country should aim at simple and functional housing units at affordable prices and with emphasis on the use of local materials. Proto-type designs of simple, functional houses with emphasis on local sourcing of building materials should be mass-produced for sale to members of the public at affordable prices. In order to minimize the problem of over-designing and high costs of buildings, there is need for a multi-disciplinary

forum whereby professionals such as Architects, Estate Surveyors and Valuers, Quantity Surveyors and Structural Engineers engage in constant dialogue on housing design and construction.

Improvements in the skill capabilities of local construction, manpower and the adoption of appropriate construction techniques can expand the output capacity of the construction industry, minimize cost of construction, and ensure quality in output.

Earth as a building material has been frequently identified with non-durable construction, as exemplified in the shelter conditions of most low income settlements. One reason why houses built with mud have become synonymous with low quality construction is that, in most instances, those who build with the material do not possess the requisite skills. With good construction practice, earth can be durable in simple shelter construction. For instance, the use of ordinary fired-clay bricks in structural masonry in place of reinforced concrete, is a cost saving technique which is simple but requires some basic skills.

In most instances, the promotion of appropriate skills and techniques for the construction industry can be facilitated if basic tools such as those for weights and measures are widely available. In addition, the adoption of standardized building components or the use of co-ordinated sizes in construction will, among other benefits, minimize waste of materials in construction. Typical examples of materials which are wasted in site, as a result of lack of co-ordinated sizes, are timber elements and concrete blocks. With timber elements, the absence of dimensional co-ordination is worsened by inappropriate jointing techniques, so that a considerable amount of timber is cut off as waste.

Without investing in any new production units, the supply of building materials can be extended and the cost of construction minimized by rationalizing the existing system. One important task will involve rationalizing the installed capacities of production units operating below capacity. There are numerous cases of cement, lime and fired-clay brick producing plants operating far below installed capacities, and these will require a minimal effort to increase output and reduce costs.

Rationalization is also necessary as a means of controlling the use or misuse of scarce and expensive building materials. Portland cement has become ubiquitous as a building material and probably the most widely used item in construction, but at the same time, it is the main cause of several abadoned or delayed projects owing to escalating costs in construction because of its scarcity and high cost.

8.6 DEVELOPING EFFECTIVE AND EFFICIENT RENTAL HOUSING MANAGEMENT AND MAINTENANCE STRATEGIES

To reduce the current astronomical rental prices, there is the need for regular maintenance of existing dwelling units, production of new units and housing facilities along with the environmental infrastructural facilities and the likes. These can be provided through any of the actors in the housing delivery system; the public, private and the popular sectors or a combination of their activities.

Real Estate maintenance in Nigeria is seriously handciapped not only by the apathy of Nigerians on the issue, but, also by poor and inadequate financing. For most rented premises, the responsibility for financing all maintenance works falls on the landlord who

relies exclusively on collected rents to fund such works. Often such landlord hide behind the non-payment, or late payment of rents to avoid carrying out repair works resulting in the properties turning into slums. There is no legal obligation on the part of landlord to repair their properties, and even where there is such provision, it cannot be enforced.

In the public sector area, the management of properties, which includes property maintenance, is contracted out to the estate surveyors, who in turn rely on outside contractors to carry out the maintenance jobs. These estate surveyors unfortunately do not have the free hand to order the carrying out of repair works, and have, firstly to obtain clearance from their client landlords. The result is that repairs are not undertaken soon enough, or possibly not at all.

There should be an entirely new approach to property maintenance financing, that would ensure that funds are available as a matter, of course, for carrying out disrepair jobs, and that the responsibility of actually carrying out the jobs is entrusted in capable hands. Accordingly, provision ought to be made for this contingency either at the design stage of the development or throughout the expected life of the buildings.

In the first approach, a maintenance fund which forms part of the overall cost of the building should be set aside as a sinking fund, and managed by sound investment to cover the cost of all maintenance work over the expected life of the building. In the second approach, a maintenance fund is provided for the annual budget of the establishment, and used for the regular upkeep of the buildings.

Property Management surveyors should endeavour to keep proper books and records relating to all residential properties in their care since tenants and even landlords could, as of right, call for such accounts and indeed ask questions on them. This could go a long way towards improving the management skill and methods of the managing firms. Since residential property management is an aspect of the profession of Estate Management that is very demanding in that many parties who are involved may not agree, management of residential properties, being somehow troublesome, calls for a great deal of care, attention and dedication.

Efforts should be geared towards enlightening the general property owners on the crucial need to surrender more of their properties for efficient, standard and adequate management. Landlord should not wait to give their properties to management surveyors only when all efforts to eject tenants or collect arrears have failed.

It is suggested that wherever people live together as a neighbourhood, for example, as seen in Bodija Estate where infrastructual facilities, amenities, are often being used in common, a service charge ought to be paid to ensure that proper and adequate maintenance of such facilities and services are carried out right on time.

Property owners, tenant and the general populace should be enlightened to build up a standard and modern maintenance culture (attitude) to properties generally so that the general economic and physical life of these buildings may be maintained favourably.

8.7 RESEARCH IN THE HOUSING MARKET

There is no gainsaying the fact that the thrust of real estate development lies in availability of cheap building and construction materials. So much whatever the financing arrangement that may

be proffered for real estate development, there are a silent majority that may never be able to benefit from it. These are the silent poor whose basic needs is shelter. For several generations, governments, housing specialists and the public have supported what has turned out to be an almost mythical product called "Low cost housing". Yet the answer to the problem of low cost housing and real estate in general lies principally in research. As a nation we have not been able to research adequately into the use of local resources as major components for housing delivery, Mud, Clay, Wood, Raffia Grass, Bamboo and Granite are some of the abundant local resources that we can tap towards reducing the cost of building construction. Until then our hopes will remain hopeless in our attempts to house the poor. Ralph Pritchard, the President of International Real Estate Federation (FIABCI) 1985 summarised what the approach should be thus:-

> "Since the great majority of the world's population cannot afford the type of housing traditionally provided by the public and private sectors, there is an urgent need to develop new procedures which will have to include aspects such as self help construction programmes, simpler and less expensive mortgage schemes, new criteria regarding the extension of credit, better use of indigenous building materials and simplified land title registration procedures:"

In Nigeria, a salutary development in the Housing development industry is that "research has shown that stonecrete, pebblecrete, terracrete, solid sandcrete blocks, bricks and woodblocks can be used as footings for housing development (Olateju, 1990).

There is the need for the establishment of housing data bank by the Federal Ministry of Works and Housing in collaboration with the Federal Mortgage Bank of Nigeria to shed light on the demand/

supply relationships in the housing market. In particular, research on the following questions could yield valuable policy insights: What role does rental housing play in integrating new immigrants into the urban community? What are the real rates of return on investment in rental housing and what factors influence those rates under various market conditions ?

There is the need for a proper assessment of our immediate and future housing needs so as to be able to formulate policies and strategies for meeting the expected target by the development of new housing units and the improvement of existing stock in need of refurbishment.

Value engineering and analysis should be applied in all our mass housing projects. For the avoidance of doubt, value engineering and analysis (Value management) is about removing undesirable costs in a project without affecting the quality of the project. What is absolutely certain is that value engineering or value analysis will either reduce costs, leaving the same or better quality and function, or it will improve quality and function while leaving the costs.the same. In a project, it asks the following questions: What is it? What does it do? What does it cost? What modifications are possible? What will such modifications cost? What effect if any, will the modification have on the time required to complete the project?

In countries where value engineering is practised, contractors are normally given a percentage of the amount saved as an incentive. But in Nigeria, Foreign contractors apply it to improve on their profit margin, without any part going to the client.

8.8 COMBATING INFLATIONARY TRENDS

One recognises the provisions made in the National Housing Policy for solving the country's housing problems but it will be proper to identify two important factors namely, inflation and security of tenure. Inflation, in all, ramifications affects the fabric of the economy. Serious and immediate attention should be paid to inflation so as to bring down prices of building materials, cost of funds and other commodities in order to stimulate tenants to pay rents because the less one has to spend on food and other necessities, the more will be the amount at his disposal for housing. The Federal Ministry of Works and Housing prototype has a price tag of ₦50,000, a figure which in relation to the general income level, is of course on the very high side.

Much has there is need to enhance the policy of researching into the use of local building materials to bring down cost, the curbing of inflation in the economy should be the nations priority. We must recognise that neither research nor local building material is inflation proof. Even a substantial increase in the supply of housing funds at the present level of material prices and construction costs and their present rates of increase will make only little meaning, as borrowing, even at low interest rates for housing will still be unattractive. With inflation galloping as it is now, the goal of making decent housing accommodation available at affordable costs to all Nigerians by the year 2000A.D. may not be achieved.

8.9 PROVISION OF INFRASTRUCTURAL FACILITIES AND IMPROVEMENT OF ENVIRONMENTAL QUALITY

The provision of infrastructural facilities should be given greater attention by the government as a way of stimulating housing development. The activities of the Directorate of Food, Roads and

Rural Infrastructure is a right step in this direction.

Support should be given to measures which encourage incremental development and upgrading of dwellings, so long there is no discrimination against subletting. Where market conditions are appropriate, rentals should be actively encouraged.

Above all, a conscious effort to document and present the relative attractiveness of rental housing and to encourage balanced consideration of rental housing in the National Housing Policy should be undertaken.

The National Housing Policy is focussed on making home ownership possible for a broader range of people. Little explicit attention is given to strategies for an active rental housing sector. As the arguments presented in this thesis have shown, there are good justifications for taking a more balanced approach to the role of rental housing. First there is a clear demand for rental housing which can account for one quarter to two thirds of the market overall, and a much higher proportion of lower income households. Second, rental housing meets demand sooner than owner-occupied and is not selected simply because renters have no choice. Third, demand for rentals is met with smaller units, dense development than comparable numbers of owner-occupied dwellings. The limited financial resources of the country can achieve greater coverage in increasing total housing supplies. If rental development is given even treatment in housing policy.

A balanced treatment of rental and ownership housing will require attention to the following pertinent, issues:

(i) Continuing efforts should be geared towards a rationalization of land tenure and management. Specifically, provisions should be made in the Land Use Act to ensure

that property assembly, and ownership instruments in no way discriminate against rental housing or against development of land to maximum densities. Land should be released in blocks to developers, for construction of housing for rent or resale while government effort should focus on supply of major infrastructure.

(ii) There should be appropriate fiscal and monetary policy to encourage investment in the housing sector. The Federal and State Governments should classify residential housing as a social service, rather than leaving it as an economic undertaking competing for loan finance in the open market at high interest rates. Housing loans should be highly subsidized by the government as it is done in some other developing countries.

The Nigerian Housing strategy should be in line with the United Nations' "Global Strategy to the year 2000," which incorporates much of the thinking on housing. The new strategy is centred around the notion that governments should serve as enablers in housing sector - drawing back from their role as providers of housing and playing a more forceful role in facilitating new construction by the private sector by creating an appropriate regulatory environment and ensuring the availability of housing finance. The whole basis of a workable strategy is that the government should review existing legislation and regulations and their impact on shelter production and improvement and remove those which appears to be unenforceable.

Underlying the strategy is the belief that the division of labour between the public and private sector should reflect more accurately the fact that in most countries, it is the private sector that produces the bulk of all housing. The government should establish the legislative , institutional and financing framework that will enable formal and informal business sectors, non governmental

organisations and community groups to make optimal contributions to the development of the housing sector.

Our strategy should contain three complementary parts, a gradual reorganisation of the housing sector, a rational mobilisation and distribution of financial resources in the sector, and the creation of measures to invest these resources in the production of housing. It has become evident that housing policy must be developed in the context of overall national economic policy, just as macro-economic policies should be made with a view to stimulating housing growth. In short, the housing sector must be integrated into macro-economic decision making. Policy makers in Nigeria need to become aware of the important effect of housing policy on income, employment, fiscal and financial matters.

The enabling strategy concept requires a large step beyond the pilot project approach, in the direction of creating sustainable housing delivery system. The latter implies reforming policies and streamlining institutions, rather than proceeding on a project by project basis. These changes while made at the national level will require co-ordination between the private and public sectors including level governments and government agencies. For successful housing strategy, the full participation of local communities in the decision making process is required.

Government should not abandon their role as builders of housing: they should multiply their investments on the provision of serviced land, in the mobilisation of housing finance and in the facilitation of the formal and informal private sectors through the adoption of appropriate standards, legal frameworks and procedures. The Government should focus attention on the issues of land management, infrastructure and building materials to encourage new housing

production, and the improvement of existing units. Land is the first basic element required for increasing the availability of housing. Where land is publicly held, the government will need to allocate sufficient resources to service land for housing. Where land is most held privately, the role of government should be to provide incentives and apply sanctions to ensure that land is made available for building. In most cases, this will mean streamlining government procedures for registering title and related regulations.

In addition, land information management systems will need to be improved to promote efficient land markets. Poor land systems, in general, increase the cost of land, and, thus the cost of housing. Government also need to take a careful look at informal shelter and squatter areas with a view to providing tenure rights and security, which will encourage low income households to improve existing homes. Along the same line, the Nigerian government can play a role in ensuring adequate housing by providing low cost water supply, sanitation and other infrastructural facilities. Another important government role is the stimulation of appropriate building technologies by providing incentives (credit, technical support, etc.) to small-scale producers of local construction materials.

In the next chapter, we will make some concluding remarks and identify possible future research directions.

CHAPTER NINE

CONCLUDING REMARKS AND FUTURE RESEARCH DIRECTION

9.1 INTRODUCTION

In this study, an attempt has been made to examine the socio-economic characteristics of rental households in Ibadan, to analyze the rental levels and to inquire into the factors influencing rental levels in the different residential submarkets of the city. Based on the findings of this study, we have made some policy recommendations to address the issues raised by our empirical results.

It is considered pertinent before ending this study to make some concluding remarks. With respect to management of rental housing in Nigeria, the nefarious activities of the fake estate agents in the urban centres of Nigeria deserves special mention. The proliferation of these fake agents in rental housing services and transactions in recent times has assumed a notable dimension, moreso in view of the fraudulent activities of a majority of persons in this category of business. It does seem that the prevalence of this aspect of commercial activity neglects the implications of the uncurtailed activities of persons engaged in this form of service especially as it affects owners of rented accommodation. Consequently, due to the pecuniary advantages of real estate transactions, all calibre of persons hold out to be agents capable of bending owners of property by such representations.

Third parties as a result rely on such manifestations to make financial commitments in fulfilment of obligations on their part. Regrettably, a good number of these transactions turn out to be cases of obtaining by false pretenses and appear unenforceable with the owners of the property they purport to represent.

In the light of the above, there is need for research on the activities of these ubiquitous fake estate agents to complement the propaganda efforts of the Nigerian Institution of Estate Surveyors and Valuers (NIESV). Such research should provide answers to pertinent questions such as:

* What is their understanding of the traditional routines of property management in the rental housing market ?
* Can they continue to operate legally in a country where there is an Institution of professionals backed up with a decree who should legally perform specified services ? What is the legal position ?
* To what extent is the property owner (landlord) bound by a fake agreement under the auspices of a fake estate agent ?
* In what ways can the activities of these quacks be mitigated or curtailed in the housing market ?

It has become obvious that at times of economic depression, housing assumes a secondary role in the reordered priority of government. Also the efforts of the private sector in sustaining its contributions to housing development is greatly inhbited due to spiralling inflation, high cost of building materials, excessive cost of funds and low returns on investment.

At times such as these, the ingenuity of equity funding can sustain housing development in this country. The major problem this time around is that because of the harsh economic situation in which we now find ourselves, the annual returns on housing vis-a-vis the cost of funds (and considering the relative yields on other investment assets) do not justify the capital invested. But we must agree on the fact that housing development enjoys high capital appreciation

yield which guarantees it a higher return than other comparable investments on an equated balance sheet. This latent resource of capital yield can effectively be tapped through equity partnership and a well developed and organised equity market for housing development financing.

In our present circumstances in the country, there is a large disparity between the huge cost of housing and the income of prospective home owners. In order to bring about normalcy in the housing market and promote affordability, it is necessary to reduce housing cost or increase the income of the people substantially. In addition, the level of interest on home loan would also need to be brought down. Fiscal measures tend to favour the formal sector in the housing market while the informal sector which represent 70% of the population of Nigeria (Wahab, 1990) cannot be ignored. A new development to help this sector is the co-operative housing system-a strategy devised to achieve cost reduction in housing through judicious organisation of resources and marshalling the energies of cooperative.

There is need to make some remarks on the issue of Land Use Decree. The time it takes for a developer to secure the land necessary for development is at present inordinate. There is also the feeling that the state itself perceives the sale of land as a source of revenue and this perception in many cases had led to the fixing of an arbitrary price for the sale of state land in order to increase the revenue to the state. Should this be true then the thinking must be erroneous. The concern of the state under the Land Use Act must be a good use of the land in the State and the creation of the correct environment. If these are secured, then a good developed environment must result and a higher property value must be the benefit. It has

been argued repeatedly under the auspices of the Nigerian Institution of Estate Surveyors and Valuers that the State should expect to derive income on a continuing basis from the taxation of real estate and not from the sale of land under the Land Use Act. By a logical process, there must come a time when all available land would be sold. If the State should depend on the sale of land then it should expect to face a zero-income situation when all the available land would have been sold. But it seems that the opportunity which the Land Use Act offers the state to sell land for an income is one of the reasons why many of the State Governments wish to retain the Act. But the contradiction of the control of the distribution of land by the state in a deregulated economy flies in the face of all.

We will conclude our remarks here by focussing on the consumer (tenant). A tenant deserves value for his money. There should be a legal machinery for withholding rent from the landlord when he defaults most especially in carrying out repairs. The statute should be in such a way that the tenant stops paying rent and when the landlord brings summary process action, the court will accept as a defence against eviction the existence of hazardous violations of the housing code. More often, the tenant must petition the court for permission to withhold his rent or pay it into an escrow account (which should be held by the court). To facilitate this, the Federal Ministry of Works and Housing should prepare a list of "rent-impairing violations" in order to avoid the necessity for judicial determination of the severity of the violations and its eligibility to meet the statutory language of the rent withholding law. The legal machinery should be conched in such a way that the landlord receives his rent after he makes the necessary repairs, and sometimes the money in the escrow

account should be turned over to him in order to permit him to make the necessary repairs.

However, this rent strike, as it can otherwise be called, has some administrative impediments and that is why it has not been widely used. For instance the New York Statute requires that six months must elapse after the violation has been recorded before rents can be withheld. The policy of those enforcing the law is to give the landlord an extension so long as he promises to repair. While the tenant waits in conditions which may endanger his health or well being, the landlord may adopt one stalling device after another. Often, he can stall until the tenant moves and the case is withdrawn, and thus avoid the repairs altogether. Also, lack of widespread knowledge about the existence of such laws, if made, the reluctance of tenants to go to court, and the paucity of legal help may be impediments to rent strike approach.

In the section which follows, we will examine possible future research direction.

9.2 THE RESEARCH FRONTIERS

From the various works sourced in this thesis, it is obvious that the problems of the urban housing market have attracted the attention of many scholars in the developed countries and some scholars in the developing world. Nevertheless, there is still need for a probe into a wide range of issues in this topical area of the urban economy. It is also necessary to test the "goodness of fit" of Western models, and it is important to formulate models dealing with the behaviour of other participants in the rental housing market namely the property managers, the bankers, the developers, the land speculators, etc.

Apart from the issues mentioned above, there are other issues of the Housing Market which are bound to engage the attention of urban economists in Nigeria in the immediate future and which would feature prominently as part of the frontiers of the Rental Housing Market in the country. Some of these issues include a comparative study of the property management activities of firms of Estate Surveyors and Valuers and Quasi-property management firms in Nigeria. Do they have the same or different appreciation of the issues involved in property management? Inspite of their "illegal" status in the property market can the professional estate surveyors and valuers learn anything useful from them? To what extent are their activities detrimental or salutary to the interest of the key participants in the housing market?

There is also the need to introduce gender issues into the study of the rental housing market. For example what are the preferences of women with respect to housing attributes in tenantable properties? What are the activities of women that are detrimental to maintenance of housing quality? What is the relationship between women, housing and environment? There is also the need to introduce the population element into the study of housing. Also relevant is the relationship between housing quality and health. Studies on these areas even in the developed countries are yet few and scanty and almost non-existent in the developing world. Some of the work already done has a tendency of fitting the patterns and structure of Nigerian Residential property market into existing Euro-American models. Yet, it has been argued that as a result of the distinct cultural background of countries in the developing world, their own urbanization experience as well as the patterns, structure and processes of their urban centres would have to take a distinct form and shape.

Research workers in the Nigerian Urban Housing Market are bound to be more engrossed in the search for this distinct form and shape by focussing on the peculiar characteristics generated by the culture of the land. It is therefore to be expected that research workers would also be more wary in importing findings either in the form of theories and empirical models from other urban environment, such as those of the developed countries into their own without adequate testing and modification.

Furthermore, there is need for research progress in the exploration of theoretical formulations which will not only explain but also provide systematic generalizations which could form guidelines in Housing policy formulation processes.

There is need for a similar study to be conducted on the mortgage lender's behaviour in the housing market. Because of the problem of affordability particularly among the low and the middle-income people, the mortgage lender has become a key participant in the housing market. As a result of this development, there is need for a study highlighting the various factors (considerations) influencing mortgage lender's behaviour as regards advancement of loans to potential borrowers and how significant each factor (consideration) is.

There is an urgent need for studies in household expenditure patterns over time. As at now the question of who the "low income worker" is with respect to "low-income housing" remains elusive. Such studies would help establish the proportion of income that remains after urgent needs are met. It is this information regarding residual income rather than arbitrary definition of income levels that should be used in the formulation of a housing policy for the poor. The consideration of gross income of only the head of the

household rather than the net income of the entire household distorts the real earning power of low income families.

Research has shown that factors such as family size and composition, stage in the life cycle, income, level of education, age, number of children do influence the relative satisfaction of people with housing. Future study on human behaviour and institutions as they affect housing preferences in Nigeria could be of great assistance to housing designers. Nigerian sociologists and psychologists need to apply their discipline to the field of housing. This is a way of ensuring that the social needs of different classes of families are met in the process of meeting the housing needs.

Another fertile area of research which has not been given adequate consideration is the question of tenant organization and involvement in the management of public housing. Experience from other countries have shown that it is desirable and most beneficial to give tenants in public housing some voice in the administration of their projects. Such participation do help to encourage a new and healthier outlook. How such tenant involvement should be introduced, promoted and made meaningful needs to be critically explored by researchers and policy makers. It is also necessary for the Federal Ministry of Works and Housing to fund a series of seminars on tenant participation in order to identify the principles and problems involved.

There is also the need for research to move away from the mechanics of housing to the problem of the people who live in the house. For example, what are the needs of a family and how do these relate to the requirements for the use of a dwelling unit? These, inter-alia, are the issues that should engage the attention of researchers in the immediate future as far as the urban housing market is concerned.

BIBLIOGRAPHY

AARON, H.J. (1972): Shelter and Subsides
Washington D.C.: The Brookings Institution.

ABIODUN, J.O. (1976): "Housing Problems in Nigerian Cities"
Town Planning Review, Vol. 47, No. 4 (October).

ABIODUN, J.O. and BOATENG,S.Y. (1988): "The Spatial Pattern of Residential Inequalities in Ibadan Metropolitan Area". Report of Research Grant No. 1423ES, Obafemi Awolowo University, Ile-Ife (then University of Ife).

ABIODUN, J.O. (1980): "Housing Problem and Policies: The Experience of a Tropical African Country 'Nigeria'" Paper presented at the 50th advance Summer Institute in Regional Science, Amsterdam (August).

ABRAMS, C. (1964): Housing in the Modern World.Faber

ABRAMS, C. (1964): Man's Struggle for Shelter in an Urbanizing World
Cambridge, Massachusetts: M.I.T. Press.

ABUMERE, S.I. (1982): "Residential Differentiation in Ibadan, Some Sketches of an Explanation", in Ibadan Region, edited by Filani, M.O., Published in the Dept. of Geog., University of Ibadan, pp. 225-244.

ADENIYI, E.O. (1974): "Housing and the Construction Industry in Nigeria", Paper presented at the Annual Conference of the Nigerian Economic Society, University of Ibadan, April 10-14.

ADENIYI, E.O. (1980): "Challenges of Provision of Housing in Nigeria's Urban Centres", Paper presented at the 3rd International Conference on Housing Held in Kaduna, Nigeria (17-24 August)

ADENIYI, E.O. (1972): "Housing in Nigeria National Development"
The Nigerian Journal of Economic and Social Studies
Vol. XIV No. 3 (November) pp 315-326.

ADERIBIGBE, A. (ed) (1975): Lagos: The Development of an African City
Longmans, London.

ADESINA, S.O. (1980): "Materials and Construction Techniques for low Cost Housing in Nigeria", Paper presented at the 3rd International Conference on Housing held in Kaduna, Nigeria 17-24 August.

ALONSO, W. (1960): "A Theory of the Urban Land Market", Papers and Proceedings, Regional Science Association, Vol. 6, pp. 149-157.

ALONSO, W. (1964): "Location Theory" in Readings in Urban Economics edited by Edel, W. and Rothenberg, J. (1972), M.I.T Press, Cambridge, Massachusetts pp. 16-35.

ANAS, A. and EUM, S. (1984): "Hedonic Analysis of a Housing Market in Disequilibrum", Journal of Urban Economics, Vol. 15 No. 1, January 1984, pp. 87-106.

ANSA, P.A. (1980): Residential Districts of Calabar, Unpublished B.Sc. Dissertation, Dept. of Geog., University of Ibadan.

APPS, P.F. (1973): "An Approach to Urban Modelling and Evaluation - A Residential Model: 2 Implicit Prices for Housing Services" Environment and Planning Series A, Vol. 5 pp pp. 705 - 717.

ARAEDON, D. (1978): "Regional Assessment of Human Settlement Policies in Nigeria", Habitat International, Vol. 3 and 4, pp 331-342.

AREOLA, O. (19): "The Spatial Growth of Ibadan City and Its Impact on the Rural Hinterland," in Ibadan Region, edited by Filani, M.O., Published in the Dept. of Geog., University of Ibadan. pp. 66-78

ARIMAH, B.C. (1990): "An Analysis of Urban Housing Market in a Developing Country: A Case Study of Ibadan, Nigeria Unplished Ph.D. Thesis, Department of Geography, University of Ibadan.

AVUE, D.I. (1980): "Housing Problems in Makurdi: Essay Submitted in partial fulfilments of the Master of Science Degree in the Department of Geography, University of Ife, Ile-Ife, Nigeria (April).

AWONIYI, S.O. (1978): Characteristics of Housing Types and Determination of Housing Needs: A Case Study of Ilorin. Dissertation Presented in Partial Fulfilment of the Requirements for the Award of Bachelor of Arts Degree in Geography, Ahmadu Bello University, Zaria (June).

AWOTONA, A. (1981): Formal and Informal Housing in Metropolitan Lagos: A Study of Users' Needs, Programmes and Policy, Ph.D. Thesis, Department of Land Economy, University of Cambridge.

AYENI, B. "The Metropolitan Area of Ibadan: Its Growth and Structure", in Ibadan Region, edited by Filani, M.O., Published in the Dept. of Geography, University of Ibadan pp. 79-95.

BALCHIN, P.N. and KIEVE, J.L. (1982): Urban Land Economics, Second Edition; Mac Millan Press Ltd., London.

BALL, M.J. (1973): "Recent Empirical Work on the Determinants of Relative House Prices" Urban Studies, Vol. 10 pp 213-233.

BALL, M.J. and KIRWAN, R.M. (1977): "Accessibility and Supply Constraints in the Urban Housing Market", Urban Studies, Vol. 14 pp 11-32

BALWANT, S. ("Site Development and Sanitary Services", in Housing in Third World Countries, edited by Murison, H.S. and Lea, J.P. (1979), The MacMillan Press Ltd., London, pp. 89-99.

BALWANT, S. "Site Development and Sanitary Services", in Housing inThird World Countries, edited by Murison, H.S. and Lea, J.P. (1979), The MacMillan Press Ltd., London, pp. 89-99.

BAILSEY, H.L. (1970): Quantitative Research Methods for Business and Economics, New York: Candom House,

BARLOWE, R. (1978): Land Resource Economics, 3rd Edition P.H. Inc. Englewood Cliffs, New Jersey.

BECKER, G. (1965): "Theory of the Allocation of Time" Economic Journal, Vol. LXXXV, Sept., 1965, pp. 493-517.

BENTICK, B.L. (1972): "Improving the Allocation of Land Between Speculators and Users: Taxation and Paper Land." Econ. Rec. Vol. 48 pp 18-41.

BISH, L. (1969): "Public Housing: The Magnitude and Distribution of Direct Benefits and Effects on Housing Consumption". Journal of Regional Science

BLANK, D. and WINNICK, L. (1953): The Structure of Housing Market", Quarterly Journal of Economics, Vol. 67, May, p. 187.

BORUKHOV, E., GINSBERG, Y. and WERCZBERGER, E. (1978): "Housing Prices and Housing Preferences in Israel" Urban Studies Vol. 15, pp. 187-200.

BRODSKY, H. (1970): "Residential Land and Improvement Values in a Central City" Land Economics Vol. 46 pp 229-247.

BUTLER, R.V. (1982): "The Specification of Hedonic Indices for Urban Housing", Land Economics, Vol. 58, pp. 96-107

BYATT, C.R., HILMANS, A.E. and LAIDLER, D.E.W.: Income and the Demand for Housing: Some Evidence for Great Britain, in Essays in Modern Economics", (Michael Parkin and A.R. Nobay (Eds.). Barnes and Noble, New York (1973).

CUBIN? J.: "A Hedonic Approach to Some Aspects of the Coventry Housing Market". Warwick Economic Research Paper 14.

DAVIS, G. (1974): "An Econometric Analysis of Residential Amenities" Urban Studies, Vol. II, pp 217-225.

, W. (1983): "Land Speculation and the Rental Price of Housing" Journal of Urban Economics, Vol. 13, No. 1, January, pp 1-21.

DALTON, C. (1962): "Traditional Production in Primitive African Economics", Quarterly Journal of Economics, Vol. 76, pp 360-378.

DELEEYW, F. and EKANEM, N. (1970): Income and Cost of Rental Housing The Urban Institute, Washington, D.C. January.

DE LEEVN, F. and EKANEM, N. (1971): The Supply of Housing The Urban Institute Washington, D.C., 1971.

DE LEEVW, F. and EKANEM, N. (1971): "The Demand for Housing" A Review of Cross Sectional Evidence, The Urban Institute Washington, D.C. March, 1971

DELEEVW, F. and EKANEM, N.F. (1973): "Time Lags in the Rental Housing Market, Urban Studies, Vol. 10, No. 1, Feb., pp 39-68.

DRAKAKIS-SMITH, D. (1979): "Low Cost Housing Provision in the Third World: Some Theoretical and Practical Alternatives" in Housing in Third World Countries, Morrison and Lea (ed.) MacMillan Press Ltd., London pp 22-30.

DUESENBERG, J.S.,and KISTIN, H. ("The Role of Demand in the Economic Structures", in Studies in The Structure of the American Economy, edited by Wassily Leontif, 1953, Oxford University Press, New York, pp. 451-482.

ECKART, W. (1983): "Land Speculation and the Rental Price of Housing" Journal of Urban Economics, Vol. 13, No. 1, January, pp 1-21.

EDGAR, O. OLSEN (1969): "A Competitive Theory of the Housing Market", American Economic Review, Vol. 59, Sept., pp 612-622.

EMEKA, I.M. (1982): "Low Cost Housing in Nigeria" The Building Journal, IMT, Enugu, Vol. 2.

EKPO, O.B. (1976): "An Assessment of Housing Market Characteristics in Zaria including Policy Recommendations"MaMaster of Science Thesis. The Department of Urban and Regional Planning, Faculty of Environmental Design and Management, ABU, Zaria.

ELICKSON, B. (1987): "An Alternative Test of the Hedonic Theory of Housing Markets" Journal of Urban Economics, Vol. 9, No. 1, January 1987 pp. 56-79.

ERNEST and ROBERT FISHER,(1954): Urban Real Estate, Henry Holt and Co., New York. p. 223.

FADAHUNSI, S.O. (1980): "Fifty Years of Housing Development in Africa" Lessons for the Future. Paper presented at the 3rd International Conference on Housing Held in Kaduna, Nigeria (17 - 24), August.

FADARE, O. "Analysis of Factors Affecting Household Trip Generation in the Residential Areas of Ibadan", Ife Research Publications in Geography, Vol. 3, pp. 34-48, Department of Geography, O.A.U., Ile-Ife.

FALEGAN, S.B. (1980): "Housing Finance in Nigeria", Dissertation Submitted in partial fulfilment of the requirements for the award of a B.Sc. (Hons) Degree in Estate Management, University of Ife, June.

FALEGAN, S.B. (1980): Housing Finance and Funding: The Nigerian Experience, Paper presented at the Third International Conference on Housing, Kaduna, 17-24 August.

FEDERAL MINISTRY OF HOUSING AND ENVIRONMENT (1981): "National Housing Policy", Federal Republic of Nigeria.

FEDERAL REPUBLIC OF NIGERIA: Third National Development Plan, 1975 - 1980, Vol. 1, p. 306, Ministry of Economic Planning, Lagos.

FEDERAL REPUBLIC OF NIGERIA: National Housing Policy, Federal Ministry of Works and Housing, Lagos, February 1991.

FERGUSSON, D.A. and VALENT, F.R. (1962): "Housing in a Growth Economy", Land Economics, Vol. XXXVIII, University of Wisconsion.

FHA Techniques of Housing Market Analysis: FHA Division of Research and Statistics, Washington, D.C., 1964.

FOLLAIN, J. LIM, G.C. and RENAUD, B. (1980): "The Demand for Housing in Developing Countries: The Case of Korea" Journal of Urban Economics, Vol. 7, pp 315-336.

FOLLAIN, J.R. and JIMENEZ, E. (1984): "The Demand for Housing Characteristics in Three Developing Countries: Columbia, Korea, and the Phillipines" World Bank Staff Working Paper, Washington, D.C.

FOLLAIN, J.R. and JIMENEZ, E. (1985): "The Demand for Housing Chracteristics in Developing Countries". Urban Studies, Vol. 22, pp. 421-432.

GEORGE, S. and HUGHE, J.W. (1981): The Future of Rental Housing, Centre for Urban Policy Research, New Jersey.

GONIN, F.J. (1983): "Market Structure and the Price of Housing Services", Urban Studies, Vol. 20, No. 3, August, pp 365-378.

GRIGSBY, W.G., (1967): Housing Market and Public Policy, University of Pennsylvania Press, Philadelphia.

HARRISON, D. and RUBENFELD, D.L. (1978): "Hedonic Housing Prices and the Demand for Clean Air", Journal of Environmental Economics and Management, Vol. 5, pp. 81-108

HAMILTON, W. and COOKE, W. (1982): "The Price of Housing 1950 - 1975" Journal of Urban Economics Vol. 12, No. 3, November, pp 304-323.

HEILBRUN, J. (1974): Urban Economics and Public Policy St. Martins Press, New York, (Second edition).

HOOVER, M.E. (1968): "The Evolving Form of the Metropolis" in Perloff and Wingo (eds.) "Issues in Land Economics. The John Hopkins Press.

HOWENSTINE, E.J. (1957): "Appraising the Role of Housing in Economic Development", International Labour Review 75, January.

HOYT, H. (1939): The Structure and Growth of Residential Neighbourhoods in American Cities. Chicago: University of Chicago Press.

IFEDIORA, B.U. (1976): "Rehabilitating and Redeveloping Nigeria's Decaying Cities" - A Case Study of Enugu an Unpublished M.Sc. Thesis Submitted to the Department of Estate Management, University of Reading, U.K.

IGHALO? J.I. (1985): "The Role of the Estate Surveyor and Valuer in the Development Process", A Paper presented at the Seminar of CASLE (West African Region) held at Obafemi Awolowo University (then University of Ife) between 13th -16th March.

INTERNATIONAL LABOUR OFFICE (1964): Housing Co-operative Studies and Reports, New Series, No. 66, Geneva.

ISMAIL, T. (1991): Housing and the 1991 Budget - An Unpublished article.

JAFFE, D.M. and ROSEN, K.T. (1976): "Mortgage Credit Availability and Residential Construction" Brookings Papers on Economic Activity, Vol. 2, pp 333-376.

JAWANDO, O.A. and VANDER ZEE, J. (1975): "Upgrading of Unplanned Urban Development", Paper presented at the 2nd International Conference on Housing, Ibadan.

JIM KEMENY (1984): "The Swedish Housing Model: A Commentary" Urban Studies, Vol. 21, No. 1, Feb., 1984, pp. 81-83.

JIMENEZ, E. (1982): "The Value of Squatter Dwellings in Developing Countries", Economic Development and Cultural Change, Vol. 30, pp. 739-752.

JOHNSTON, J. (1963): Econometric Methods. New York: McGraw-Hill,

JOHNSTON, R.J. (1973): Spatial Structures, London, Methuen, pp. 77 - 85.

JOLAYEMI, I. (1984): "Distribution of Urban Residential Land Values and Residential Developments - A Case Study of Residential Land Values and Development in a Large City: Ibadan - A Dissertation submitted in Partial fulfilment of the requirements for the award of Bachelor of Science in Estate Management at the Department of Estate Management, Obafemi Awolowo University, Ile-Ife.

JON PYNOOS ET AL (1980): Housing Urban America, Second Edition, Aldine Publishing Company, New York.

KAIN, J.F. and QUIGLEY, J.M. (1970): "Measuring the Value of Housing Quality" Journal of the American Statistical Association, Vol. 67, pp. 803-806.

KAIN, J.F. (1980): "Effect of Housing Market Segregation on Urban Development", in Housing Urban America, Jon Pynoos et al (ed.) pp. 257-272

KAIN, J.F. and QUIGLEY, J.M. (1975): "Housing Markets and Racial Discrimination: A Micro-economic Analysis", New York: National Bureau of Economic Research .

KAIN, J.F and QUIGLEY, J.M. (1970): "Measuring the Value of Housing Quality" Journal of the American Statistical Association, Vol. 67 pp 803-806.

KANEKO, M. (1983): "Housing Markets with Indivisibilities" Journal of Urban Economics Vol. 13, No. 1, January 1983, pp 22-50.

KEKE, C.C. (1985): "Housing Market and Housing Sub-Market in Nigeria", Unpublished Term Paper CURP, University of Ibadan.

KERLINGER, F.N. (1964): Foundations of Behavioural Research Holt, Rinehart and Winston,

KIRWAN, R. (1981): The Impact of Inflation on Public Housing in Britain - A paper presented at an International Conference on Structural Economic Analysis of Planning in Time and Space, at the University of Umea, Sweden, June.

KIRWAN, R.M. and MARTIN, D.B. (1970): The Economic Basis for the Models of the Housing Market. Centre for Environmental Studies WP 1962.

KLEINBAUM, D.G. and KUPPER, C.L.G. (1978): Applied Regression Analysis and Other Multivariate Methods, Duxubury Press, Mass, U.S.A.

KMENTA, J. (1971): Elements of Econometrics, The Macmillan Company, New York, U.S.A.

LANSING, J.B., MUELLER, E. and BARTH, N. (1964): Residential Location and Urban Mobility. University of Michigan,

LAWRENCE, D.M. et al (1974): Modern Methods of Valuation, The Estates Gazette Limited, London p. 19.

LEE, F. and TROST, R. (1978): "Estimation of Some Limited Dependent Variable Models with Application to Housing Demand", Journal of Econometrics, Vol. 8, December, pp 357-382.

LICHFIELD, N. (1956): Economics of Planned Development. The Estate Gazette Limited, 151 Wardour Street, London, WIV 4BN.

LIM, G.C.; FOLLAIN, J. and RENAUD, B. (1984): "Economics of Residential Crowding in Developing Countries" Journal of Urban Economics, Vol. 9, pp 126-148.

LITTLE, J. (1975): "Revealed Preference in Assignment Housing Markets", Working Paper HMS J. Institute for Urban and Regional Studies, Washington, University.

LUCAS, R. (1975): "Hedonic Price Functions", Economic Inquiry, June, pp 157-178.

MABOGUNJE, A. (1962): "The Growth of Residential Districts in Ibadan", The Geographical Review Vol. III.

MABOGUNJE, A.L. (1978): Urbanization in Nigeria; University of London Press, pp. 224-225.

MABOGUNJE, A.L. (1974): "Towards an Urban Policy in Nigeria", in Housing in Nigeria (A Book of Readings) edited by 'Poju Onibokun, 1985 pp 19-35.

MABOGUNJE, A.L. (1974): "Value-Systems and the Urbanized Environment", Paper presented at the 18th Annual Conference of the Nigeria Geographical Association, Nsukka.

MABOGUNJE, A.L. (1980): The Development Process: A Spatial Perspective. First Edition, Hutchinson and Co. Publishers Ltd., London, pp. 176.

MACLENNAN, D. (1977): "Some Thoughts on the Nature and Purpose of House Price Studies" Urban Studies, Vol. 14, pp 59-71.

MANDELKER, D.R. and Montgomery, R. (1973): Housing in America: Problems and Prospects, The Bobs - Merrill Co. Inc. New York.

MARAFATTO, M. (1983): Nigerian Brazilian Houses, Italian Cultural Institute, Lagos,

MAYO, S.K. (1977): Housing Expenditures and Quality - Part I: Report on Housing Expenditures Under a Per cent of Rent Housing Allowance - Cambridge, Mass: Abts Associates.

MAYO, S.K. and MAIPEZZI, S. (1984): "A Comparative Analysis of Housing Demand in Developing Countries", World Bank Discussion Paper, No. 41.

MACLENNAN, D. (1977): "Some Thoughts on the Nature and Purpose of House Price Studies" Urban Studies, Vol. 14, pp 59-71.

MAISEL, S.J. (1953): in Muth, "The Demand for Non-Farm Housing", Readings in Urban Economic edited by Edel and Rothenberg, 1972 pp 227-245.

MALPEZZI, S. and BAMBERGER, M. (1982): Analysis of Urban Housing Survey in Kenya: Economic Models and Statistical Techniques, Urban Development Department, The World Bank.

MEGBOLUGBE, I.F. (1983): "A Hedonic Index Based Model of Housing Demand for Third World Cities" Unpublished Ph.D. Thesis, Department of City and Regional Planning, University of Pennsylvania.

MEGBOLUGBE, I.F., (1984): Housing Development Process Mimeography University of Ibadan, Nigeria.

MEGBOLUGBE, I.F. (1986): "Econometric Analysis of Housing Trait Prices in a Third World City" Journal of Regional Science, Vol. 26 pp 533-547.

MILLS, E.S. (1976): "Housing Policy as a Means to Achieve National Growth Policy". In Housing in the Seventies: Working Papers, 1: 202-14. Washington D.C.: U.S. Government Printing Office.

MONICA, R. (1976): "Rent Control" Concepts, Realities and Mechanism, The Centre for Urban Policy Research, New Jersey.

MORTON, W.A. (1955): Housing Taxation, University of Wincousin Press, Madison.

MURRAY, M.P. (1975): "The Distribution of Tenant Benefits in Public Housing", Econometrical 43 (July): 771-88.

MUSGRAVE, R.A. (1976): "Policies of Housing Support: Rationales and Instruments", In Housing in the Seventies: Working Paper, 1:215-33, Washington D.C.: U.S. Government Printing Office.

MUTH, R.F. (1968): "Urban Residential Land and Housing Markets". In Issues in Urban Economics, pp. 285-333. Edited by Harvey S. Perloff and Lowdon Wingo, Jr. Baltimore: The Johns Hopkins Press.

MUTH, R. (1969): Cities and Housing, Chicago University Press.

MUTH, R.F. (1971): "Capital and Current Expenditures in the Production of Housing", Stanford: Stanford University Center for Research in Economic Growth Memo 123.

MUTH, R.F. (1973): Public Housing: An Economics: Evolution. Washington D.C.: America Enterprise Institute for Public Policy Research.

MUTH, R.F. (1976): "The Rationale for Government Intervention in Housing", In Housing in the Seventies: Working Paper, 1: 192-201. Washington, D.C.: U.S. Government Printing Office.

MUTH, R.F. (1978): "The Allocation of Households to Dwellings" Journal of Regional Science, Vol. 18, No. 2, August, pp. 159.

NELSON, R.H. (1973): "Accessibility and Rent: Applying Beckers 'Time Price' Concept to the Theory of Residential Locations", Urban Studies, Vol. 10, No. 1, Feb., pp. 83-86.

NELSON, J.P. (1978): "Residential Choice, Hedonic Prices and the Demand for Urban Air Quality", Journal of Urban Economics, Vol. 5, pp. 357-369.

NESSLEIN, T.S. (1982): "The Swedish Housing Models an Assessment" Urban Studies, Vol. pp. 235-246.

NIE, N.H.; HULL, C.H.; JENKINS, J.C.; STRENBRENER, K. and BENT, D.H. (1975): SPSS: Statistical Package for the Social Sciences, McGraw Hill. Inc. New York, USA.

NISER and the Dept. of Environmental Studies, University of Ife, Rural Housing in Southern States of Nigeria, Federal Ministry of Housing and Environment, Lagos, 1982.

NURSE, H.O. (1976): "A Rationale for Government Intervention in Housing". In Housing in the Seventies: Working Papers, 1:243-50, Washington, D.C.: U.S. Government Printing Office.

NOURSE, H.O. (1963): "The Effect of Public Housing on Property Values St. Louis" Land Economics 39 (November): 433-41.

OATES, W.E. (1969): "The Effects of Property Taxes and Local Spending on Property Values: An Empirical Study of Tax Capitalization and the Tiebout Hypothesis" Journal of Political Economy, Vol. 77 pp 957-971.

ODEDIRAN, J.O. (1978): "Housing Problems and Prospects in Abeokuta, Ogun State Capital. A Dissertatio n Submitted in Partial Fulfilment of the Requirements for the Award of Bachelor of Science Degree in Estate Management, University of Ife, Ile-Ife (June).

ODELEKE, O.M. (1984): "Constraints in Real Property Investment in Nigeria - A Case Study of Ibadan" - A dissertation Submitted in partial fulfilment of the requirements for the Award of the Bachelor of Science in Estate Management of the Department of Estate Management, Obafemi Awolowo University, Ile-Ife.

OGUARA, T.M. (1980): "Low Cost Housing Using Cement Stabilized Soil Blocks, Paper presented at the 3rd International Conference on Housing held in Kaduna, Nigeria (17-24, August).

OGUNPOLA, A. and OLADEJI, O. (1975): Housing as an Indicator of Urban Poverty: The Case of Metropolitan Laogs: Paper presented at the Annual Conference of the Nigerian Economic Society.

OGUNTOYINBO, J.S. (1982): "Climatic Characteristics", in Ibadan Region, edited by Filani, Dept. of Geog., University of Ibadan,.

OHLS, J. (1975): "Public Policy Toward Low Income Housing and Filtering in Housing Markets", Journal of Urban Economic 2 (April): 144-71.

OJO, O. (1978): The Effect of Oyo State Residential Accommodation (Rent Control) Edict on Residential Property. Unpublished Thesis/Practical Task Submitted to the Nigerian Institution of Estate Surveyors and Valuers.

OKEDIJI, F.O. and ABOYADE, O. (1967): Social and Economic Aspects of Environmental Sanitation in Nigeria: A Tentative Report, NISER, Ibadan, Report Series No. 47, Jan., pp 6-12.

OKOYA, T.O. (1976): "The Residential Slums in Enugu: An Illustration of an Aspect of Our Urban Planning Problems", Paper presented at the 19th Annual Conference of the Nigerian Geographical Association, Zaria.

OKPALA, D.C.I. (1978): "Ajoda, A Critique of the Application of "New Town Concepts in Nigeria".

OKPALA, D.C.I. (1980): "Rent Control Reconsidered" Behavioural Science Journal, Vol. 3, No. I and II pp 67-85.

OKPALA, D.C.I. (1980): "Promoting the Use of Local Building Materials in Nigerian Housing Construction: The Problems and the Prospects", Journal of Administration Overseas, Vol. XIX, No. 2.

OKPALA, D.C.I. (1980): Housing Tenure in Nigerian Housing Policy: Need for Rethinking of Current Emphasis", Paper Presented at the 3rd International Conference on Housing held in Kaduna (17-24) July.

OKPALA, D.C.I., "Rent Control Reconsidered" in Housing in Nigeria (A Book of Readings) edited by 'Poju Onibokun, pp. 139-161.

OLA, S.A. (1977): "Promoting Low-Cost Housing by Using Stabilised Soil", Paper presented at the Conference of the Nigerian Society of Engineers at Port Harcourt.

OLA, C.S. (1984): Town and Country Planning and Environmental Laws in Nigeria, Second Edition, University Press Limited, Ibadan, pp. 29-30.

OLATEJU, B. (1990): "Innovative Building Materials Application for Co-operative Housing Development in Nigeria" - A Paper presented at the National Workshop on Housing Co-operatives for Nigeria held at the Conference Centre, Obafemi Awolowo University, Ile-Ife, Nigeria, 17th and 18th December, 1990.

OLSEN, E.O. (1992): "An Econometric Analysis of Rent Control in New York City", Journal of Political Economy 80 (November/December): 1081-110.

OLSEN, E.O. and PRESCOTT, J.R. (1969): "An Analysis of Alternative Measures of Tenant Benefits of Government Housing Programs with Illustrative Calculations from Public Housing". Santa Monica! (RANI) Corporation.

OLUWATUDIMU, A.O.: "Urban Residential Building Types in Western Nigeria", Studies in Environmental Design in West Africa, pp 53-63.

O'MARA, P.W. (1978): Residential Development Handbook, ULT-The Urban Land Institute

OMUTA, G.E.D.: Regional Development and Planning, Geography and Planning Series.

ONIBOKUN, A.G. (1969): "The Core of Ibadan City, Nigeria: A Case Study in the Problems of Housing in the Emerging Nations. Thesis presented to the Faculty of Graduate Studies of the University of Waterloo in partial fulfilment of the requirements for the Degree of Master of Arts in Regional Planning and Resources Development, University of Waterloo, Ontario, (February).

ONIBOKUN, A.G. (1970): Socio-Cultural Constraints on Housing and Urban Renewal Policies in Emerging Nations, Human Org., Vol. XXIX, No. 2, pp. 133-139.

ONIBOKUN, A.G. (1971): "Housing Finance in Nigeria: A Critical Survey of Private and Public Source", Town Planning Review, Vol. XLIII, No. 3 (July, pp 227-292).

ONIBOKUN, A.G. (1972): "Nigeria: Strategies for Urban Redevelopment" Journal of the Royal Town Planning Institute, Vol. LVIII No. 21 (February), pp 51-56.

ONIBOKUN, A.G. (1973): "Environmental Issues in Housing Habitability" Environment and Planning, Vol. 5: 461-476.

ONIBOKUN, A.G. (1974): "Forces Shaping the Physical Environment of Cities in the Developing Countries: The Ibadan Case "Land Economics", Vol. XLIX No. 4, pp 421-431.

ONIBOKUN, A.G. (1974): "Evaluating Consumers" Satisfaction with Housing: An Application of a System Approach", Journal of the American Institute of Planners, Vol. XL, No. 3, pp. 189-200.

ONIBOKUN, A.G. (1974): "Evaluating Consumers Satisfaction with Housing: An Application of a System Approach", Journal of the American Institute of Planners, Vol. 40, No. 3, pp 189-200.

ONIBOKUN, A.G. (1975): "A Cross-Cultural Approach to Social Issues in Housing and Residential Development NISER Mimeo - GRAPH.

ONIBOKUN. A.G. (1975): "A Critical Review of the Nigerian Government Housing Policy and Programmes". A paper presented at the International Conference on Housing Organised by the Associationof Housing Corporations of Nigeria, Ibadan (April 21 - 26).

ONIBOKUN, A. et al: "Policies, Organizational Structure and Functions of the Federal Ministry of Housing Urban Development and Environment". Report of a Federal Ministry of Housing, Urban Development and the Environment and the Nigerian Institute of Social and Economic Research (NISER), Ibadan.

ONOKERHORAYE, A.G. (1976): "Socio-Cultural Factors in the Development of Residential Districts in Traditional Nigerian Cities African Urban Notes, Vol. 2. Pg. 29-37.

ONOKERHORAYE, A.G. (1977): "The Spatial Pattern of Residential Districts in Benin, Nigeria" Urban Studies Vol. 44, pp. 291-302.

OSAGHAE, C.O.; IGBOKO, P.N. and FADARE, S.O. (1993): "Accessibility and Rental Values: A Quantitative Analysis" The Estate Surveyor and Valuer, Vol. 17, No. 2, July 1993, pp. 21-28.

PALM, R.I. (1978): "Spatial Segmentation of the Urban Housing Market". Economic Geography, Vol. 54, pp 201-221.

PENNANCE, F.G. (1967): Housing Market Analysis and Policy. The Institute of Economic Affairs, Norwich,

POLINSKY, A.M. (1977): "The Demand for Housing: A Study in Specification and Grouping". Econometrica 45 (March): 447-67

PRC (Nigeria) Ltd. (1980): Housing Needs in Nigeria: Federal Ministry of Planning, Lagos.

PROPERTY DEVELOPMENT CORPORATION (1985): "Housing Co-operative and Neighbourhood Co-operatives", Information Brochure, p. 13.

QUIGLEY, J.M. (1982): "Non-Linear Budget Constraints and Consumer Demand: An Application to Public Programs for Residential Housing", Journal of Urban Economics, Vol. 12, pp. 177-201.

RAPKIN, C. WINNICK, L. and BLANK, D.M. (1953): Housing Market Analysis Housing and Home Financing Agency, p. 22.

RAPKIN et al in MONICA, R. (1976): "Rent Control" Concepts, Realities and Mechanism, p. 41.

RATCLIFFE, J. (1978): An Introduction to Urban Land Administration, Estate Gazettes, London.

RENDALL, M. (1957): A Course in Multivariate Analysis, Aylesbury: Griffin.

RICHARDSON, H.; VIROND, J. and FURBEY, R. (1974): Determinants of Urban House Prices, Urban Studies, Vol. 11, 1974 pp 189-199.

ROMESCONSULT (1975): A Ten Year Federal Housing Development Programme in the 1976 - 1985, Federal Ministry of Works and Housing, Lagos.

ROSE, J.G.: (1975): "The Transfer of Development Rights: A New Technique of Land Use Regulation", Centre for Urban Policy Research, New Brunswick, N.J.

ROSEN, S. (1974): "Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition", Journal of Political Economy, Vol. 82: 34-55.

SCHAFER, R.: The Suburbanisation of Multi-Family Housing, Lexington: Mass: Lexington Books.

SCHNARE, A.B. and STYRUYK, R. (1976): "Segmentation in Urban Housing Markets", Journal of Urban Economics, Vol. 3, 1976 pp. 146 - 166.

SEYMOUR, T. (1978): "Housing Policy and Income Distribution in Kaduna C.S.E.R. Reprint Paper No. 4.

SEYMOUR, T. (1978): Housing Needs: A Review of a Methodology" Research Paper II, Centre for Social and Economic Research, Ahmadu Bello University, Zaria.

SEYMOUR, T. (1979): "Housing Income and Occupational Activity in Selected Residential Areas of Kaduna", Centre for Social and Economic Research (C.S.E.R.), Research Report, No. 5.

SHAW, D.J.B. (1981): "Problems of Land Use Planning in USSR" Soviet Geography, Vol. 22, No. 5. pp 293-305.

SIEGEL, S. (1956): Non-Parametric Statistics for the Behavioural Sciences, Mc-Graw Hill Book Company, New York.

SKOURAS, A.L. The non-neutrality of Land taxation. Public Finance Vol. 33, 1978 pp 113-134.

SMITH, B.A. (1975): "The Demand for Housing: A New Look at Urban Empiricism" San Diego: Meeting of the Western Economic Association June.

SMITH, B.A. (1976): "The Supply of Urban Housing", Quarterly Journal of Economics 90 (August): 389-406.

SMOLENSKY, E. (1968): "Public Housing or Income Supplements – The Economics of Housing for the Poor", Journal of the American Institute of Planners, 34 (March): 94–101.

SPURR, W.A. and BONINI (1973): Statistical Analysis for Business Decisions (Homewood, Ill; Richard D. Irwin, Inc.)

STOKES, C.J. (1962): "A Theory of Slums", London Economics, Vol. 38, No. 3, pp. 187–197.

STRASZHEIM, M.R. (1975): An Econometric Analysis of the Urban Housing Market, National Bureau of Economic Research, New York.

STYRUCK, R.J. (1976): Urban Homeownership. Lexington, Mass: Lexington Books.

STYRUCK, J. and TUCCILLO, J. (1983): "Defining the Federal Role in Housing: Back to Basics", Journal of Urban Economics Vol. 14, No. 2, September, 1983, pp. 206 – 223.

SUTCHLIFFE, A. (1974): Multi-Storey Living: The British Working-Class Experience (London).

SWAN, C. (1973): "Housing Subsidies and Housing Starts", American Real Estate and Urban Economics Association Journal 1 (Fall): 119–40.

TARN, J.M. (1961): "Housing in Urban Areas, 1840 – 1914", Cambridge University Ph.D. Thesis.

TARN, J.M. (1969): "Housing in Liverpool and Glasgow: The Growth of Civic Responsibility" Town Planning Review, 39: 123–45.

THEIL, H. (1971): Principles of Econometrics, New York: J. Wiley.

THORNCROFT, M. (1965): Principles of Estate Management, Estate Gazette, London.

TURNER, J.F.C. (1972): "Housing Issues and the Standards Problems", Ekistics, Vol. 33, No. 196, March, 1972. p. 155.

TURNER and FICHTER (1972): Freedom to Build, New York: Collier-Macmillan.

TURVEY, R. (1957): The Economics of Real Property (London).

UDO, R.K. (1982): "Ibadan in Its Regional Setting" in Ibadan Region edited by Filani, Dept. of Geog., University of Ibadan, pp. 1–16.

UGHAMADU, F. (1993): "Reducing Cost in Construction Work" Business Times, Monday, August 2, p. 24.

UGHAMADU, F. (1993): "Working Out Efficient Land Delivery System", Business Times, Monday, October 11, 1993, p. 14.

UMEH, J.A. (1977): Feasibility and Viability Appraisal Onibonoje Publishers, Ibadan, Nigeria, 1977.

VAGALE, L.R., (1971): "Rent Control in Nigeria: A Policy Framework" in Housing in Nigeria (A Book of Readings) 'Poju Onibokun (ed.) pp. 133-138.

VAISH, M.C. (1980): Macro-Economic Theory, 6th Revised and Enlarged Edition, Vikas Publishing Hse., PVT, LTD., Indian, pp. 198-199.

VANCE, J.E. (1967): "Housing the Worker: Determinative and Cognitive Ties in Nineteenth Century". Birmingham: Econ-Geogr. 43: 95-127.

VANDERNICKEN, P., (1973): "The Powerful Logic of the Leasing Boom" Fortune. Nov., 1973, p. 136.

VAN HORNE (1977): Financial Management and Policy, Fourth Edition Englewood Cliffs, London: Prentice Hall, Chap. 19.

WAHAB, K.A. (1974): "Meeting the Housing Needs of Nigeria" Conference Proceedings of the 3rd International Symposium on Lower Cost Housing Problems. Concordia University, Montreal Canada pp. 1241-1251.

WAHAB, K.A. (1974): "A Housing Policy for the Urban Areas of Nigeria" Ekistics, Vol. 38 No. 224 July pp. 21-26.

WAHAB, K.A. (1978): "Popcentage Completeness as a Tool of Housing the Low Income Earners in Low Income Housing Technology and Policy", Proceedings of the International Conference, BangKock Vol. III. Pergamon Press, Oxford, pp. 1347-1368.

WAHAB, K.A. (1980): "Housing Co-operatives as Tools for Mass Housing" Paper presented at the 3rd International Conference on Housing Held in Kaduna Nigeria 17-24, August.

WAHAB, K.A. (1978): "Percentage Completeness as a Tool for Housing the Low Income Earners" In Low Income Housing Technology and Policy, Proceedings of the International Conference, Bangkok Vol. III Edited by R.P. Pama, S. Angel and J.H. De Goede Published by Pergamon Press Ltd. Oxford pp 1347-1368.

WAHAB, K.A. (2974): "The Influence of Value Judgement on Housing Costs in Nigeria", Proceedings of the Third International Symposium on Lower Cost Housing Problems. Concordia University, Montreal, Canada May pp 487-495.

WAHAB, K.A. (1976): "Effective International Assistance for Housing to Developing Countries" I.T.C.C. Review, Vol. 1 (13) January, 1975 pp. 15-19. A Version of this Paper appeared in Ekistics, Greece, Vol. 41, No. 242, Jan. pp 27-28.

WAHAB, K.A. (1977): "Evaluation of Current National Housing Policies in Nigeria" in Low Income Housing Technology and Policy. Proceedings of the International Conference BangKock, June, Vol. III Edited by R.P. Pama, S. Angela and J.H. De Geede, Pergamon Press Limited, Oxford pp 1321-1337.

WAHAB, K.A. (1985): "National Resources, Communal Participation and Affordable Housing" EEC Project No. 4106-002.41 24 Ife Trieste University Co-operation, No. 6 Ife April 1985. It is worthy of note that actual housing completion of 28,500 Units represents only 14% of the target set (202,000) or about 3.3% of the actual Shortage of 867,000 by 1975.

WAHAB, K.A. (1978): "National Housing Policy and Effects on Reduction of Housing Costs" International Journal for Housing Science, Vol. 2, No. 6, pp 549-554.

WAHAB, K.A. (1979): "Manpower Requirements in a Selected Number of Housing Projects in Nigeria", Building and Environment, U.K. Vol. 15, pp 33-43.

WAHAB, K.A. (1980): "Housing Co-operatives as Tools for Mass Housing" Paper presented at the 3rd International Conference on Housing Held in Kaduna, Nigeria 17-24 August.

WAHAB, K.A. (1983): "More than Shelter - An Inaugural Lecture Delivered at Oduduwa Hall, University of Ife, Ile-Ife pp 21.

WAHAB, K.A. (1984): "Housing Cooperative System for Nigeria" EEC Project No. 4106.002.41.24, Ife-Trieste University Cooperation, Vol. 4 p.2

WAHAB, K.A. (1985): "Urban Housing Conditions", Contribution Chapter in Urban Housing Research in Nigeria. Edited by Poju Onibokun, NISER, Ibadan, Nigeria, 1

WAHAB, K.A. (1986): "Housing Cooperative as a Tool for Mass Housing" in Readings on Housing in Nigeria Edited by Poju Onibokun, NISER, Ibadan.

WENDT, P.F. and CERF, A.R. (1979): Real Estate Investment Analysis and Taxation, McGraw-Hill Book Company, New York.

WHEATON, W.C. "Urban Spatial Development with Durable But Replace Capital", Journal of Urban Economics, Vol. 12, 1982 pp. 53-67.

WHITBREAD, C.A. and BIRD, K. (1973): "Rent Surplus and the Evaluation of Residential Environments", Reg. Studies, 7, 193-223.

WHITEHAND, J.W.B. (1965): "Building Types as a Basis for Settlement Classification" in Essays Presented to A.A. Miller, pp. 291-305. (Reading).

SHITEHEAD, C. (1983): Housing Finance in 1970s and 1980s A paper presented at Building Societies Association Conference, London.

WIEAND, K. and CLEMMER, R.L. (1977): "The Annual Housing Survey and Models of Housing Services Output", Washington, D.C. Meeting of the Americal Real Estate and Urban Economics Association, May.

WILBUR SMITH ASSOCIATES: Master Plan for Metropolitan, Lagos Vol. 1 - Existing Conditions and Needs, Lagos, 1980.

WILDING, P. (1973): "The Housing and Town Planning Act., 1919: A Study in the Making of a Social Policy, J. Social Policy, 2, 317-34.

WILKINSON, R.K. (1974): The Determinants of Relative House Prices: A Case of Academic Astigmatism", Urban Studies, Vol. 11: 227-230.

WILLIAM, K. T. (1972): "Alternative Future and Distributional Planning", Journal of the American Institute of Planner, Vol. XXXVIII, No. 1, pp. 25-31

WILKINSON, R.K. and ARCHER, C.A. (1972): "Measuring the Determinants of Relative House Prices", Environment and Planning, Vol. 5: 357-367:

WILKINSON, R.K. (1971): The Determinants of Relative House Prices Paper presented to the CES Urban Economics Conference.

WILNER D.M.; WALKLEY, R.P.; PINKERTON, T.C. and TAYBACK, M. (1962): The Housing Environment and Family Life. Baltimore: The Johns Hopkins Press.

WINGER, A. (1962): "Housing Space Demands: A Cross Section Analysis", Land Economics, Vol. XXXVIII, University of Wisconsin.

WINGO, L. (1961): Transportation and Urban Land RFF, Boston: John Hopkins Press.

WOHL, A.S. (1971): "Housing in London", in Working Class Housing Ed. S.D. Chapman, pp 13-54 (Newton Abbot).

YINGER, J. "Prejudice and Discrimination in the Urban Housing Markets in this Volume.

APPENDIX I

SURVEY QUESTIONNAIRE ON IBADAN RENTAL HOUSING MARKET
(RENTAL HOUSEHOLD QUESTIONNAIRE)

Dear Sir/Madam,

This questionnaire is being administered by a Post-Graduate student in the Department of Estate Management, Obafemi Awolowo University, Ile-Ife to collect information for a research project entitled "A Behavioural Study of the Rental Housing Market in Ibadan, Oyo State of Nigeria".

All information obtained will be treated confidentially and used onlyfor the purpose of the study.

Your cooperation will be highly appreciated.

Thank you.

A. S. ASAJU

Date of Interview:

Identification Number:

Sample enumeration district: High Density: .....
Medium Density: .....
Low Density: .....

Household Characteristics

1. Age: .....
2. Sex: .....
3. Marital Status: Single ☐ Married ☐ Divorced ☐
   Widowed ☐
4. Educational Attainment
   No formal Education ☐ Primary School ☐
   Secondary School ☐ Technical School ☐ Polytechnic/NCE ☐
5. Occupation
   Farming ☐ Trading ☐ Civil Servant ☐
   Retired ☐ Student/Apprentice ☐
6. Place of Employment: .....

Income and Expenditure

7. How much did your household receive last month from the earning of the

(i) Household head .....

(ii) Earning of the wife: .....

(iii) Earning of other members: .....

8. Who are the financial members of the family ?

.....

9. About how much did your household spend last month on

Food ..... Education .....

Clothing: ..... Savings .....

Re nt: ..... Medical Expenses: .....

Water/Electricity ..... Entertainments .....

Others ..... Total .....

Property Characteristics

10. Type of Property

Rooming Houses/Tenement .....

Block of flats: .....

Bungalow/Maisonette .....

11. No. of rooms .....

12. No. of flats .....

13. Use of Property: Residence only: .....

Residence/Business .....

14. Total number of households in the dwelling .....

15. Total number of rooms occupied by household ..... or

16. Total number of flats occupied by household .....

17. Sizes of rooms .....

18. How many are you in your household? .....

Information on Tenancy Terms

19. When did you move in ? .....

20. Who rented the premises? Self ..... Employer .....

21. If rented by employer, what is the proportion of rent paid by:

i. self per year: .....

ii. employer per year: .....

22. If privately rented, what is the annual rent paid/ per room/ flat/entire premises? .....

23. Apart from the normal rent, did you make any other payment to the landlord since you moved in?

Yes ☐ No ☐

If Yes, kindly fill in the following:

i. Purpose of payment Amount (N) .....

.....

ii. Year payment made: .....

24. As a tenant of this property, what are the problems you normally encounter? .....

.....

25. What do you think can be done to solve these problems ?

i) What do you expect landlords to do ? .....

.....

ii) What role(s) do you think the government can play to reduce the problems? .....

.....

26. Being a tenant has its advantages and disadvantages, being an owner-occupier or investor also has its advantages and disadvantages. Assuming you have the resources,

i. Would you like to build to occupy ? Yes ☐ No ☐

If Yes, why? .....

.....

ii. Would you like to build to let ? Yes ☐ No ☐

If Yes, why? .....

.....

iii. Would you like to build to sell ? Yes ☐ No ☐

If Yes, why? .....

.....

27. What other reasons could motivate you to build ? .....

.....

28. If you would not like to invest your money in building, what other investment would you consider? Please, list in other of preference.

(a) .....

(b) .....

(c) .....

(d) .....

(e) .....

29. Why do you prefer the above investment media to real estate?

.....

.....

30. Dwelling structure and characteristics, housing services and neighbourhood conditions

.....

.....

.....

.....

.....

31. What other information will you like to offer for the purpose of this study?

.....

.....

.....

Thank you for your co-operation.

APPENDIX 2

SURVEY QUESTIONNAIRE ON IBADAN RENTAL HOUSING MARKET (PROPERTY MANAGEMENT ESTABLISHMENT QUESTIONNAIRE)

Dear Sir/Madam,

This questionnaire is being administered by a Post-Graduate student in the Department of Estate Management, Obafemi Awolowo University, Ile-Ife to collect information for a research project entitled "A Behavioural Study of the Rental Housing Market in Ibadan, Oyo State of Nigeria". All information obtained will be treated confidentially and used only for the purpose of the study.

Your co-operation will be highly appreciated.

PLEASE TICK OR CIRCLE APPROPRIATE ANSWERS

1. Please indicate type of business entity or organisation:
   (a) Firm of Estate Surveyors and Valuers
   (b) Property Development Company
   (c) Financial Institution
   (d) Corporation, Public/Private
   (e) Property Management Company
   (f) Other (Please specify) .....

2. Do you have a formal property management section or department :
   (a) Yes ☐ (b) No ☐

3. If you have a formal property management section, what is the total full time staff strength of this section? .....persons.

4. If you do not have a formal property management section, what the number of
   (a) Part-time staff available to this Section? .....persons
   (b) Average man-hours per week available to this section ..... hours/per week.

5. What is the designation of the officer-in-charge of the Property Management Section? .....

6. Does the Officer have this as (a) a full-time assignment ?
   (b) a shared assignment with other duties? (Please specify) .....
   .....

7. Please indicate the types of properties in your portfolio, and the amount each (e.g. Residential Properties; 50 Units)

	Type of Property	No. of Units/m^2 of lettable floor space
(a)	.....	.....
(b)	.....	.....
(c)	.....	.....
(d)	.....	.....
(e)	.....	.....
(f)	.....	.....
(g)	.....	.....
(h)	.....	.....

8. In how many different towns/cities are the properties, for which this office has responsibility located? ..... locations.

9. Which are the main property management activities carried out ?

(a) .....
(b) .....
(c) .....
(d) .....
(e) .....
(f) .....

10. Given the nature of your organisation, what is/are your Property management objective(s) ?

.....
.....
.....
.....

11. Are the objectives of property management

(a) Expressly stated (b) Unstated but known to all staff

(c) Variable, depending on the property and circumstances.

12. Are objectives: (a) specified by top management

(b) formulated by property management section with the approval of top management.

13. Do you have specific property management targets for each property

(a) Yes (b) No (c) Not applicable

14. Are there formal property management plans for
(a) Each property in your portfolio (b) Groups of property
(c) for the whole property management section.

15. Are property management performance evaluation excercises ?
(a) Formal (b) Informal

16. If formal performance evaluations exist, are those on:
(a) an individual property basis (b) group property basis
(c) Comparative over-all management unit performance

17. If performance evaluations are <u>informal</u>, what forms do this take ?
.....
.....
.....
.....

18. With respect to budgeting and allocation of resources, does the property management section have:
(a) a separate annual/quarterly/monthly budget ?
(b) a joint budget with other sections ?

19. Who approves property management expenditures ? .....

20. Kindly assess the adequacy of the following resources available

	Very Good	Good	Adequate	Inadequate
i. Manpower resources				
a. Senior level	....	....	.....	.....
b. Junior level	....	....	.....	.....
c. Technical (non Estate Management)	....	....	.....	.....
d. Trades men	....	....	.....	.....
ii. Financial	....	....	.....	.....
iii. Materials and equipment	....	....	.....	.....

21. In addition to the above, which of the following are constraints encountered in discharging property management function (Please tick all relevant ones)
i. Lack of authority to excercise full professional discretion
ii. Interference from top management/property owner
iii. Collusion/connivance of staff with tenants
iv. Lack of understanding of the property management function
(a) by tenants (b) by top management (c) Landlords
(d) other departments

22. Of all property management functions carried out which are the 3 most important (in rank order) in terms of:

(a) Attention of Senior Level Staff require

i. .....

ii. .....

iii. .....

(b) Total man hours required

i. .....

ii. .....

iii. .....

(c) Amount of resources consumed

i. .....

ii. .....

iii. .....

(d) Urgency associated and potential loss

i. .....

ii. .....

iii. .....

23. With respect to management of occupied premises, are inspection carried out (a) Weekly for (b) Fortnightly (c) Monthly (d) Quarterly (e) Annually (f) Other (specify)

If necessary, please explain .....

.....

.....

24. What kind of maintenance programme do you have ?

(a) Routine maintenance (b) Planned maintenance

(c) Ad-hoc (as need arises) If necessary, please elaborate

25. With respect to occupied premises, do you have a tenant satisfaction evaluation programme ? (a) Yes (b) No

26. Do you have a high vacancy problem in your properties? Yes or No

27. If Yes, which property types, by location, are more affected ?

	Type of property	Location
i.	.....	.....
ii.	.....	.....
iii.	.....	.....

28. With respect to rental properties:

i. are rents paid (a) by cash (b) by cheque or money order

ii. are payment (a) sent through the mail

(b) collected by official (c) sent in by hand by tenant

iii. are demand notices sent: (a) before payment is due

(b) after payment is overdue (c) both before and after

iv. Do you have an active deliquent-tenant eviction programme ?

(a) Yes (b) No

v. Would you say defaulting tenants are: (a) Never prosecuted

(b) Sometimes prosecuted (c) Often prosecuted for recovery.

vi. Do you make use of debt collection agencies? Yes or No

vii. Do you have tenants Associations in your managed properties ?

(a) All (b) Some (c) None

viii. Do you encourage Tenant Association in managed properties?

(a) Yes (b) No

ix. On the average, what is the vacancy rate of the following relevant kind of properties in your portfolio.

Type of Property	Range of Vacancy Rate
(a) Residential properties	
* Flats	
* Duplexes	
* Single occupation Bungalows	
(b) Office space	
(c) Commercial property	
* Shops	
* Warehouse	
(d) Industrial property.	

x. On the average, what is the range of return on investment on the following kinds of properties in your portfolio

Type of Property	Range of Return on Investment	Information not available
(a) Residential Properties		
* Flat/apartments		
* Duplexes		
* Single occupation Bungalows		
(b) Office Space		

Type of Property	Range of Return on investment	Information not available
(c) Commercial property		
* Shops		
* Warehouses		
(d) Industrial property		

29. Do you have in-house repair workmen ? Yes or No

Thank you.

APPENDIX 3

LAND ALLOCATION IN RESIDENTIAL DEVELOPMENT IN NIGERIA CITIES

Land Use	% of Development Area
1. Residential (Dwelling plots)	50 - 60
2. Local/Neighbourhood shopping (Markets)	3 - 4
3. Parks, Playgrounds and other organised open spaces (recreation)	10 - 12
4. Roads and Street	15 - 20
5. Public and Semi-public Uses (Schools, Clinics, worshipping places, cemetries, etc.)	15 - 20

Source: Vagale, L.R.: Manual of space studies for Urban Development in the Western State of Nigeria (1977).

APPENDIX 4

PHYSICAL CONDITION OF HOUSES IN SOME TOWNS

	Towns	Estimate of Total Number of Houses	Estimate of Total Number of derelict buildings	Percentages		
				Derelict	Fairly Good	Good
1.	Aba	103,000	10,000	10.0	60.0	30.0
2.	Benin	110,000	17,000	15.6	41.7	52.8
3.	Calabar	24,000	3,000	12.5	45.0	42.5
4.	Enugu	127,000	28,000	21.7	46.7	31.7
5.	Ibadan	355,000	64,000	18.0	50.0	36.0
6.	Jos	72,000	19,000	26.8	36.6	36.6
7.	Kano	235,000	24,000	10.0	28.5	67.5
8.	Lagos	645,000	103,000	16.1	55.8	23.1
9.	Makurdi	16,000	9,000	12.5	53.1	34.4
10.	Onitsha	176,000	7,000	3.9	43.1	52.9
11.	Owerri	24,000	4,000	18.0	41.0	38.5
12.	Port-Harcourt	159,000	37,000	22.5	55.0	22.5
13.	Sokoto	88,000	4,400	5.0	75.0	20.0
14.	Yola	12,000	3,800	31.7	56.1	12.2

Source: Extracted from PAI Associates: A Sector Plan for Managing the Nigerian Environment, 1983 - 1995 Ibadan (1984).

APPENDIX 5

DEFINITION OF THE TRADITIONAL AND MODERN SEGMENTS: IBADAN RENTER HOUSING SUB-MARKET

Segment	Neighbourhoods
TRADITIONAL	Beere, Ogunmola's Compound, Oke Dada, Mapo, Oja'ba Olupoyi, Oritamerin, Alekuso, Oriolowo, Ayeye, Yeosa Agbede Adodo, Oke Are, Agbadugudu Odoye, Kanni-Ke, Isale Alfa, Labiran, Beiyerunka, Itabele, Olugbode, Ogbori-efon, Oranmiyan, Isale Jebu, Idi Arere, Omiyale, Ita Agba Akin, Kobiowu, Kobomoje, Ita Ege, Isale Osi, Akuro, Gege.
MODERN	Agbowo, Adamasingba, Sabo, Mokola, U.I, Sango, Oloponewa, Ijokodo, Akufo Road, Bodija, Secretariat, U.C.H., Apete, Army Barracks, Oke-Ado, Molete Challenge, Polytechnic Area, Liberty Stadium Area, Ring Road, Oluyole Estate Orita Podo, Odo-Ona Kekere, Jericho, Alalubosa Onipepeye, Alaro Elero, Eleiyele, Samonda, Agoloke, Odo Ona, Moore Plantation, Apata, Abeokuta Road, Orogun, Ajibode, Ojoo, New Army Barrack Area.

Source: ARIMAH, B.C. (1991)

APPENDIX 6

DESCRIPTION OF CLASSES OF PROPERTIES IN IBADAN

BUNGALOWS OR FLATS

Construction Materials	Cement sandcrete blocks; reinforced concrete upper floors, cement sandscrete, tiled or terrazo floor finish Balconies with wrought iron guards, burglar proofing or windows. Flush doors or crittal hope-type doors. Asbestos ceiling corrugated iron or asbestos roofing.
Wall Finishing	Cement sandscrete finished. Painted internally and externally or with Tyrolean finish externally. Bungalows may have wood paneling.
Electricity:	Available
Tap Water:	Available taps in Kitchen, bath and wash hand sinks.
Well Water:	May or may not be available.
Kitchen:	Provided for each flat or bungalow with Kitchen sink, may have draining boards, a lander and a pantry.
Bathroom:	One for each flat or Bungalow. Tiled to a height of 2m equipped with Bath and shower.
Toilet:	Water cistern toilets, one for each flat. Bungalows may have two

MODERN BRAZILIAN-STYLE HOUSE

Construction Materials:	Cement sandscrete blocks, reinforced concrete upper floors, cement sandscrete floor finish. Balconies with wrought iron guards, burglar proofing on louvre windows for latest developments wooden window for ground floor rooms, flushed or wooden glazed doors, asbestos ceiling, corrugated iron roofing.
Wall Finishing:	Cement sandscrete finished. Painted internally and externally or with tyrolean finish externally.
Electricity:	Available.

Tap water:	Available in bathroom and tap in the back of house
Well:	May or may not be available
Kitchen:	One provided for each row of 4 - 5 rooms on the same floor
Bathroom:	One provided for each row of 4 - 5 rooms on the same floor.
Toilet:	One water cistern toilet for each row of 4 - 5 rooms on the same floor.

EARLY BRAZILIAN-STYLE HOUSE

Construction Materials:	Cement sandscrete blocks or dried mud blocks, wooden first floors. Cement sandscrete floor finish. Balconies with reinforced concrete guards. Wooden glazed window. Asbestos or card-board ceiling corrugated iron roofing.
Wall Finishing:	Cement sandscrete finish painted internally and externally
Electricity	Available
Tap Water:	Available in better types. Not available in older ones.
Well	Usually provided
Kitchen	One for a floor of 8 - 10 rooms. In some cases, kitchen is built some distance from main building or a simple structure may serve as kitchen.
Bathroom:	May be built some distance from main building or simple structure may serve as bathroom.
Toilet:	Pit latrine or pail system built some distance from main house or kitchen.

TRADITIONAL COMPOUND UNITS OR MODIFIED BRAZILIAN

Construction Materials:	Mud walling, beaten earth or cement sand screte floors, small wooden windows set high or normal sized windows in modified Brazilian types. Mat, bamboo or card-board ceiling. In some cases, absent

	Building usually part of a compound or an agglomerate of houses "Agbo-Ile".
Wall Finishing:	Front facing road may be plastered usually not rendered internally.
Electricity:	May or may not be available
Tap Water:	None
Well:	May or may not be available. One may serve a compound or "Agbo-ile".
Kitchen:	Cooking done in an out house or in open when cooking permits.
Bathroom:	Simple out house uncovered. Pieces of stones as floor. Bathing alternatively done in a stream.
Toilet:	Compound may have a single pit latrine usually none.

APPENDIX 7

TRENDS IN THE PRICES OF SELECTED BUILDING MATERIALS 1984/90

MATERIAL	PRICES (₦)							% INCREASE
	1984	1985	1986	1987	1988	1989	1990	1984 - 1990
C.I.S. (15)	100	130	180	220	260	350	520	420.00
Asbestos Roofing Sheet								
(4' x 8') sheet	30	38	38	45	55	65	120	200.00
Asbestos Ceiling 8' x 4' sheet	8	10	12	13	16	19	30	275.00
Hardboard	15	20	20	25	35	50	75	400.00
225mm Sandcrete blocks	0.50	0.90	0.85	0.85	1.50	3.50	3.50	600.00
Sharp Sand/trip	40	50	60	75	80	90	170	325.00
Cement per 50kg bag	6	6.75	12.50	20	27	35	53	783.33
Gloss Finish	20	27	30	65	70	140	160	700.00
Emulsion	15	17	17	25	35	65	75	400.00
PVC Floor tiles 225mm x 225mm	50	50	67	88	88	95	120	140.00
Ceramic floor title (local Carton	20	22	25	37	45	60	70	250.00
Flush door 38mm	30	35	35	50	68	95	165	450.00
W/H basin (Local)	48	55	70	85	160	190	280	483.33
White WC Suite (local)	130	135	140	170	250	360	750	476.92
Ariston Water Heater	350	360	600	650	650	800	1,200	2242.86
Bath Tub	400	480	540	500	650	700	1,350	237.50
Gravel 3/4-1"/4 rip	110	130	135	150	200	260	350	218.18
16mm H/T rod/length	14	25	28	40	60	150	110	685.71
16mm m/s rod"	10	15	28	40	60	150	110	88.00
20mm H/T rod"	20	27	35	50	90	190	170	750.00
20mm m/s rod"	18	25	30	45	80	170	120	566.67
25mm H/T rod"	30	35	40	80	110	330	350	1,066.67
25mm m/s rod"	25	35	45	90	120	350	350	1,300.00

Source: Nwuba, C. (1991): "Private Urban Development in a depressed Economy" NIESV Conference Paper, Kaduna,