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# **Examination of the Role of Quality Market Research in Commercial Real Estate Investment in Developing Countries, Case Study of Lagos, Nigeria**

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#### Abstract:

This study sought to evaluate the quality of market research conducted for commercial real estate investment in developing countries (case study of Lagos Nigeria). The objectives of the research are to ascertain the level of application of market research in commercial real estate investment; determine the quality of market research where conducted; establish the factors inhibiting effective market research and to ascertain how market research affects the marketability and profitability of commercial real estate investments. It was hypothesized that there is no significant relationship between the quality of market research and real estate investment performance. Pre-investment advisers/Estate Surveyors and Valuers were taken as the focus population of the study since they provide market research services in the course of undertaking investment appraisals for developers and real estate investors. The quality of market research was assessed by the extent to which they comply with set standards indicated in the literature and the result compared with empirical review of investment/development appraisal reports on twenty projects. From the study, 11.6% of the respondents indicated that the quality of market research conducted is below average, while a greater percentage (51.3%) indicated that the quality of market research conducted is good. However, the empirical review of investment/development reports prepared by investment advisers/Estate Surveyors and Valuers indicated that the quality of market research conducted is low. The study also revealed that there is a weak but positive relationship between the quality of market research and real estate investment performance with a correlation coefficient of 0.240. the study recommended, amongst others, that a standard market research manual or standard pre-investment study manual stipulating the data content of market research should be provided by institutions/professionals in the built environment to ensure standardization and promotion of culture of quality in market research as well as avert loss of investors hard earned resources in our overall national interest.

**Keywords:** Commercial real estate, market research, real estate investment, pre-investment studies, developing countries

# 1. Introduction

# 1.1. Background of the Study

The role of market research in real estate investment cannot be over-emphasized. Market research has evolved from its crudest form of the early nineteenth century when man started exchanging goods and services, through the research period of in-person focus group and pen-and-paper surveys to the current research process of internets and websites. Conflicting records of 1820's show that market research was first used in the United States by Newspapers to predict election results in early nineteenth century and was subsequently used by the United States Agricultural Machinery Manufacturers for estimating the marketability of their products, (Sharma 1999).

Documented research works in form of books did not emanate until about the beginning of twentieth century, about the period of 1918 when books on marketing research was published in the United States (Sharma, 1999). Prior to this period, Sharma records that only quasi-marketing research firms such as Bureau of Business Research established by Harvard Business School and the North-Western School of Commerce in 1918 were in existence. Even in the developed economy as United States, there was no authenticated data for real estate investment except the government lists for population, agriculture and manufacturer until 1929 when the first population census was conducted.

In developing economies, market and marketing research are relatively new phenomenon. Sharma (1999) opined that although there were exchanges among various Indian societies, there was no official or documented record, relating to techniques and processes of marketing research in the past. However, the situation according to him has improved considerably in recent years and Indian firms have started engaging modern market research techniques and processes considerably. Indian organizations in both public and private sector now engage the services of marketing consultants having realized the importance of market research in business development.

In Nigeria, available records from the office of Federal Bureau of Statistics indicate that there are about twenty (20) research institutes in Nigeria. However, these research establishments concentrate on areas of sciences, agriculture

and medicine making it difficult to obtain a unified standard data on areas of real estate investment from a purpose established government research source. Although data could be assembled from various sources for real estate investment, there is still scanty literature on the concept and technique of market research for commercial real estate investment in Lagos as well as the market research plan, research guide, research instruments and research data analysis.

According to British Institute of Management (1962), market research is defined as the systematic gathering, recording and analyzing of all facts relating to transfer and sales of goods and services from producer to consumer. The Encyclopedia defines Market Research as the process of gathering, analyzing and interpreting information about a market, about a product or service to be offered for sale in that market, and about the past, present and potential customers, for the product or service, research into the characteristics, spending habits, location and needs of your business's target market, the industry as a whole, and the particular competitions you face.

Real estate investments in Lagos – Nigeria, as in other emerging economies do not enjoy active investment markets obtainable from the developed economies as a result of lack of data quality and transparency and other measures consistent with "matured" markets according to "Global Transparency Index" (GTI) as produced by Jones Lang LaSalle (2004, 2008). According to GTI, only two firms produce market indicators for African Countries – Knight Frank, and Investment Property Data (IPD). While Knight Frank produces data on Key performance indicators – yield, rental growth, total returns, market stocks, and sales prices for some major cities in Africa, Investment Property Data (IPD) produces valuation and cash flow records from portfolio of major investors based on evaluation of real estate performance for one African country – South Africa.

Consequently, quality market research for real estate investment in Lagos will require detail and comprehensive study and analysis of demand, supply, competition, market conditions, location, consumer behavior/sentiments among others to reasonably exploit the huge real estate commercial investment potentials of the city. It is therefore imperative to critically examine and evaluate the role and quality of market research for real estate investment in Lagos Island.

#### 1.2. Statement of the Problem

Commercial real estate investment in Lagos is yet to attain the required and expected level despite its huge potentials as one of the fastest growing economies. It has not effectively benefited from the recent rise in cross-border real estate investment flows unlike other large cities of the world which enjoy real estate capital flows from advanced countries of Europe, America and Asia. This is primarily because globalization of real estate investment is usually accompanied by standard market research and documented analysis of certain indices or market indicators such as rental growth, capital growth, prices, rental indices, yield, total returns, etc. as in the case of a 'mature' market (LaSalle, 2004).

Consequently, Lagos like most Africa cities lack active investment market because there is no secured and transparent data from primary sources of market evidence. It is therefore imperative that a standard quality and transparent market research model/template is indispensable if Lagos is to play any prominent role in global commercial real estate investment.

# 1.3. Research Questions

- What are the roles of market research in real estate investment?
- What is the quality of market research conducted?
- What are the challenges militating against conducting effective market research?
- What impact does market research have on the marketability and profitability of real estate investment?

# 1.4. Aim and Objectives of the Study

The aim of this study is to assess the role of and examine the quality of market research in commercial real estate investment in Lagos Island.

The objectives of the research are:

- To ascertain the contributions of effective quality research in commercial real estate investment in Lagos Island.
- To examine the quality of market research conducted for commercial real estate investment in Lagos.
- To analyze the challenges militating against the conduct of effective quality market research.
- To analyze the effect of quality market research on the marketability and profitability of commercial real estate investment in Lagos Island.

#### 1.5. Hypothesis

The hypothesis formulated for this study is as follows:

• HO: There is no significant relationship between the quality of market research and real estate investment performance.

#### 1.6. Scope of Study

This study is limited to commercial real estate investment in Lagos Island. This is because the researcher believes that Lagos Island is the major commercial hub of Lagos state and by extension, Nigeria. Consequently, result obtained within the area would be fairly representative of the trend in the application of market research for commercial real estate investment generally especially in the eyes of Global Investors.

## 1.7. Significance of the Study

With the exception of South Africa and to a reasonable extent, Egypt, Algeria and Morocco, African countries lack active investment markets as a result of unreliable primary sources of market evidence required for real estate research as obtainable in advanced economies Jones (LaSalle, 2008). Consequently, most countries of Africa are currently well outside the investment mainstream of global real estate investors.

Previous market research and published literature for real estate investment in Lagos have been segmented and limited to such areas as informal sector (Antin and Omirin, 2006), real estate investment risk, land tenure and ownership, (Larbi, 1994). There are also publications of demand for both residential/commercial properties as well as studies on estimation of real estate values and returns and hedonic analysis to explain sales prices (Asabre, 1981).

Despite these related studies and publications, there is the inevitable need to produce a standard comprehensive market research plan, guide, design, method for data collection for effective analysis, of the variables for real estate investment in Lagos to attract cross-border investment. This study is expected to widen real estate market research Knowledge for real estate investors and provide guide for future research for real estate investment decisions as well as show case the challenges inherent in market research for real estate investments.

#### 2. Literature Review

A number of works have been done on market research as it relates to real estate investments. Most of the works focused on inaccuracy arising from inadequate market analysis and appraisal methodology. Adisa (1995) noted that real estate investments and decisions adopt the armchair approach in the collection of market data and concluded that investment projects fail largely as a result of inadequacies in market data collection, inappropriate techniques and appraisers' attitudes. Aturu (2002) studied the factors responsible for non-reliability of data for investment decisions in Lagos metropolis. He identified such factors as inadequate primary and secondary data for market analysis, lack of data base for property variables, ineffective use of investment valuation techniques and the unpredictable nature of building material costs as responsible for the non-reliability of real estate investment decisions. While this researcher agrees with his submissions on the inadequacy of primary and secondary data, this study disagrees with his attributing the unpredictable nature of building material cost to unreliable investment outcomes. This researcher would rather attribute it to poor data analysis. Akingbade (2005) studied 65 reports on investment and development projects in Lagos metropolis to ascertain the degree to which they delineated market areas and used quantitative assessments to project data to market entry. 63% of the respondents indicated that they delineate market areas using such techniques as Reily's law, travel time and geographic distance while 66% indicated that they project market data to market entry using techniques like economic base analysis, trend analysis and regression analysis. Bello and Babajide (2005) examined the accuracy of predictions made in commercial property investments in Lagos and attributed the inaccuracy of the investment outcomes to the use of unreliable data and poor data analysis/techniques. Ogunba (2005) evaluated eight commercial real estate property investment reports prepared by real estate firms and noted that some firms "get away with inadequately researched armchair type of data". He observed that most reports fail to identify the primary and secondary market areas; that most reports include some discussions on the level of demand for the proposed investments but that the demand assessments are usually focused on population growth trends and are not complemented by employment growth trends, employment composition and income, that market segmentation is not explicitly considered in the reports, though there is some level of implicit consideration; that the assessment of existing competition is very restricted and that a lot of relevant information about the competition such as level of amenities, average rent, vacancy rate, size range of units of accommodation and tenant mix are absent; that most of the reports did not show the projections made about the demand and supply situation to the data when the proposed property would enter the market, that marketability studies are noticeably absent from most of the reports; that the report did not show capture rates and that the implicit assumption in most of the reports is that demand is so strong that the project would achieve 100% absorption. While this study agrees with this assessment, it is pertinent to also note that a comprehensive understanding will include analysis of investor's position in relation to other competitors (i.e. competitor analysis), consumer sentiments (i.e. consumer analysis), brand/type awareness. Ogunba (2011) further studied the adequacy of market analysis for predevelopment and pre-investment decision in Lagos metropolis real estate investment and reported based on a set of six test indicators that there were many inadequacies. Gambo et al (2012) focused on the application of market research among Nigerian Estate Surveyors and Valuers. The study revealed negligence and gross incompetence on the part of Nigerian Estate Surveyors and Valuers in carrying out market research.

## 2.1. Market Research - Meaning

The understanding of market research is embedded in the general definition of Market Research by Encyclopedia as the process of gathering, analyzing and interpreting information about a market, about a product or service to be offered for sale in that market, and about the past, present and potential customers for the product or service; research into the characteristics, spending, habits, location and needs of your business's target market, the industry as a whole, and the particular competitors you face. Webster's New World College Dictionary, 4th Edition, defines market research as the study of the demands or needs of customers in relation to particular goods or services while Collins English Dictionary defines it as the study of influences upon customer and customer behavior and the analysis of market characteristics and trends. The Advanced English Dictionary sees market research as the activity of collecting and studying information about what people want, need, and buy, carried out by producers or sellers to help develop their business strategies. (Bush et al, 2006) sees market research as the process of planning and executing the pricing, promotion and distribution of products,

services and ideas in order to create exchanges that satisfy both firm and its customers while (Kerin et al, 2009) understands it as the process of defining a market problem and opportunity, systematically collecting and analyzing information, and recommending actions.

According to the British Institute of Management (1962), market research is "the systematic gathering, recording and analyzing of all facts... relating to the transfer and sales of goods and services from producer to consumer". The Appraisal Institute defined market research as "the identification and study of the market for a particular economic good or service". According to DJS Research (2012), market research "is a systematic, objective collection and analysis of data about a particular target market, competition, and/or environment". Geltner and Miller (2007) described real estate market analysis as "the various practical and analytical tools and procedures that real estate investors apply in their decision making process connected to real estate". According to Button (2012), real estate market research "identifies and studies the demand for and supply of real estate; classifies prospective users and competition; defines markets in terms of location and trade areas; provides ongoing vital information to minimize risk and maximize opportunity; and examines market potential and competitiveness of proposed projects". He added that real estate market research "is the art and science of crafting a compelling story about the subject property".

Miles et al (2007) posited that market study "functions as the backbone of the real estate development process by providing the critical inputs for feasibility analysis". They also noted that real estate market analysis "forms the basis for the assumptions made about the value of a real estate development", adding that "if a developer cannot defend cash flow projections with analysis and reasonable data input, the feasibility of the entire development is under substantiated, and simply hoping that the type of space proposed is what the market desires and that rental rates will return a sufficient and reasonable cash flow to service the debt and provide a reasonable return to the equity investor is not enough". Ogunba (2011) opined that market analysis is designed to determine the depth and condition of a particular real estate market and its ability to support a particular development. Arguing in the same vein, Mckenzie and Betts (2006) posited that "prior to undertaking a real estate project, a developer should conduct an in-depth market analysis to estimate whether adequate buyer demand exist for the project". Novak (2006) opined that a market study helps avoid bad projects when used by the development team to design the project and for marketing.

According to Ge and Hartfield (2006) "quality data plays a vital role in providing reliable and valid information for property market performance". Market research provides the requisite linkage between property investor's product concept and the end users tastes and preferences. The essence of market research is to interpret consumer behavior and translate the perspective of key customers into actionable marketing strategies. Simon and Rob (1995) opined that market research "seeks to translate the operational characteristics of the occupational market into a structured appraisal of requirements for space, and relating these to the opportunities to supply an appropriate product, namely, buildings". Simon et al further stated that market research enables a matching process to take place between available buildings and the profile of demand, adding that the "matching" process between supply and demand is a critical element of market research and that a mismatch between a company's stock of space and its operational requirements are likely to lead to inefficiencies in the company's business, which will impede profitability and growth.

Harris (1989) noted that market research provide valuable clues to the likely trends in premises requirements. Tilford (2009) opined that like consumer packaged goods, real estate can also be conceived of as a product defined by a consumer buying space and time and that demand segmentation, an aspect of market research, can help a developer define who the consumer is and what they value or need. He also noted that the fundamental purpose of market research is to inform a developer considering a new venture about the applicable market conditions and how they relate to the proposed project. According to Darlow (1988), the objective of market research is to achieve product positioning so that a new product brought into the market can compete effectively and complement existing ones instead of merely duplicating them. Ogbuefi (2011) noted that decisions based on intuition or mere subjective assumptions could lead to a faulty and fatal investment, adding that it is inappropriate to assume that alternative or complimentary investments can be successfully executed in a market area without relevant survey. Wilkinson and Reed (2009) indicated that market research has the potential to make or break property development. Barret and Blair (1988) referred to market research as both the most difficult and the most consequential part of the real estate development planning process. Okoh (2008) pointed out that most property investment projects that are not subjected to investment analysis end up being economic wastes when carried out. Fanning (2005) stated that market research is fundamental to economic decision-making. Affirming the relevance of market research, Greer and Kolbe (2003) argued that market research is an essential element in rational decision making noting that it helps in assessing the quality of existing operations and evaluation of proposed changes for optimum profitability. Mckenzie and Betts (2008) recommended that "prior to undertaking a real estate project, developer should conduct an in-depth market analysis to estimate whether adequate buyer demand exists for the proposed project". Kone (2006) opined that "to keep a competitive position, market research and analysis are vital" and that market studies are "an important part of any business plan".

# 2.2. History/Characteristics/Types of Market Research

Market and marketing research have evolved over the years from its primitive form of in-person focus groups and pen-and-paper surveys into a viable industry where the use of internet and corporate website have changed the face of market research. With the increase in internet and websites application and practice, there has been equally increase in communication between businesses and their customers which has resulted in improved data collection efficiency (McDonald and Malcom, 2007). Marketing firms have enjoyed easier and much improved market research as internet keeps developing and website becoming for interactive resulting in more exhaustive data collection and analysis.

Access to internet and websites have introduced more competition among companies and businesses as online channels become more open to customers/consumers to make purchases. Therefore, companies and businesses now need improved and modern research methods in order to capture the attention of consumers/customers. As the world becomes a global village by technology and communication expertise, companies resort to advanced market research to capture the attention of customers by analyzing customer behavior over their products (Warren, 1983).

Understandably, there have been technological innovations in market research in recent years as competition grows with corresponding ease of data availability, collection, analysis and application. Companies/firms now engage in several innovative market research techniques and processes to better understand their customer behaviors and sentiments.

Characteristically, efficient and acceptable market research is both systematic and objective. A systematic market research implies systematic planning at all stages of the research process. It is usually documented and methodological and uses scientific method in its data collection and analysis (Scot et al, 2001). It is also objective in the sense that the market research provides unbiased data and accurate information reflecting the true state of affairs. An objective market research is always professional and devoid of personal or political inclination of the researcher (Scot et al, 2001).

Market research can come in various forms which include but not limited to researches in Brand awareness, customer satisfaction, Buyer decision making process, Demand estimation, Distribution channel, Marketing effectiveness, mystery consumer or mystery shopping, sales forecasting, Price elasticity testing, Sales forecasting, segmentation research – to determine the demographic, psychographic, cultural, and behavioral characteristics of the target buyers/customers etc. (Young, 2005).

#### 2.3. Overview of Market Research Methods

There are several ways to categorize market research methods. There are varieties of techniques and research designs and they are often categorized into primary and secondary (Malhotra, 2005) as illustrated below:

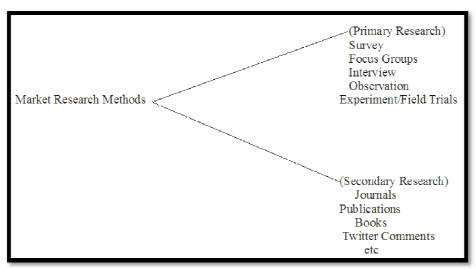


Figure 1

From the illustration above, primary research consist of the following:

#### 2.3.1. Surveys

Market research by survey taking different patterns ranging from simple feedback report cards to the continuous and rigorous web surveys. Survey research method appears to be the most popular and widely applied method and is usually necessary when you need objective and quantitative measurement or when it involves specific measurement beyond the exploratory research. It comes handy when you require a test of large sample and you have the available resources – time and money to conduct a survey. Survey research comes in diverse forms and could be administered mails, web, face-to-face, etc. and could be self-administered.

## 2.3.2. Focus Group

Primary research by focus group entails arranging a target group physically present together in place for a discussion on the subject matter of the research. Depending on the topic, participants may be of a particular demographic order e.g. Parents of 40 years and above earning \(\frac{\text{\text{4100}}}{100}\),000 per annum and above; female lecturers of 30 years and below with Ph.D. in Estate Management; University students below the age of 25 years who are diabetic etc. depending on the study in question. The discussions are moderated and recorded and the research team usually takes note. Of course, for effective response and results, the participants enjoy compensation in various ways such as monetary or free product among others. Focus groups are very reliable for exploratory qualitative research may be used before a survey so that the survey questions may be more specific and targeted or after a survey for better understanding of the question in the survey.

#### 2.3.3. Interview

This primary research method is a handy tool for exploratory research. It is a qualitative market research method and involves individual participants and the interviewer and could be open-ended or structured with specific question.

# 2.3.4. Experiments/Field Trails

This is a quantitative research method which is usually applied for scientific testing of variable and hypothesis. Example of this will be where a firm or organization has two brands of a particular product and decides to measure which of the brands makes the greater impact on the customers.

#### 2.3.5. Observation

Market research by observation/field trial is one of the primary research methods and has advantage of measuring actual behavior as opposed to user – reported behavior. Observation/field trial research method may take various forms as exemplified in mystery shoppers and in-store observation – where the mystery shopper is the researcher and the store is the subject being observed.

Again, it is pertinent to note that market research according to Malhotra, (Malhotra, 2005) could be Qualitative – such as in focus groups, and in-depth interviews where statistical significance and confidence are not calculated and used for exploratory purposes.

#### 2.3.5. Quantitative

Such as in surveys and questionnaires involving large number of respondents and applying random sampling techniques to infer from the sample to the population and this is usually used to test a specific hypothesis and draw conclusions.

### 2.3.6. Ethnographic Studies

This is based on observation and naturally qualitative. It involves observation of natural phenomena which can occur cross-sectionally i.e. observation made at one time or longitudinally i.e. observation over several time-period.

# 2.3.7. Experimental Techniques

This involves quantitative research procedure where the research creates certain environment to control certain factors as in purchase laboratories and test markets where the researcher tries to manipulate one of the variables.

In most market research assignment, researchers usually apply more than one research design which may include secondary research to be equipped with sound background information and the conduct which is a qualitative research design aimed at fully exploring the subject matter and the proceed to do a full survey (Quantitative research design) aimed at achieving specific recommendations.

# 2.4. Guide to Market Research

Market research is indispensable in any business venture because maintaining existing customers and remaining competitive in today's market is an onerous task because you will need sufficient and reliable data. Consequently, there is inevitable need to understand the guide to reliable market research survey to achieve dependable data collection, analysis and use.

Market Research Guide entails trying to reach a specific audience. In other words, need to identify a target market. Then there a further step to research and analyze the target market which entails good knowledge of the potential market size. It is also important to measure brand awareness in relation to other competitors to enable the investor rate his brand as compared to respondent's impression of products or services of other competitors. Research should include feedback survey to the target audience which helps in business improvements and innovations.

Also, a good market research should lay emphasis on Competition analysis to know where the business stands as compared to other competitors. It is also important to analyze the target market and deal extensively on the potential customer demographically which will give insight into the customer's gender, age, location, income, number of children etc. This information is essential in helping the researcher understand and analyze the target market. Gaining competition advantage involves conduct of market segmentation-studying the market in smaller groups that share common attributes-demographics, geography, life style, product usage, band affinity etc. Finally one of the task of good market research is aimed at understanding consumer behavior or sentiment in the market.

A standard market research survey should take cognizance of the following tips:

- Problem definition- Understanding or defining the problem you want to solve determine the type of data that is required.
- Establish research objective-The research objective will focus on the goal which the market research is set to achieve.
- Target the right audience The purpose of the research determines the audience and it is necessary to achieve a suitable sample size within the researcher's budget.
- Decide margin of error- It is necessary to be mindful of the relationship between the simple size and margin of error.
- Setting Timelines-Timelines have great impact on the quality and quantity of responses. Market research studies show that survey have greater response rate between the hours of 9-10am than 10-11pm.

## 2.5. Market Research Process and Decision Support Tools

Data collection and analysis involve a process of assembling the qualitative and quantitative data or mixture of both and the scrutiny of same to draw conclusions. The process consists of the following steps:

# 2.5.1. Articulating the Research Problem and Objective

Market research process starts with problem definition. i.e. defining the problem to be solved and the question to be answered.

## 2.5.2. Developing the Research Plan

This involves determination of most efficient manner to collect and collate the information required.

# 2.5.3. Data Collect

This is the point of decision on the mode of information gathering or data collection-surveys, interviews, mails, phone calls etc.

#### 2.5.4. Data Analysis

This represents the point of data filtering-selecting the useful information and discarding the unnecessary ones.

# 2.5.5. Presentation of Findings/Data

Having identified your audiences, the researchers identify the useful findings from the participants' reactions.

# 2.5.6. Using the findings to make the decisions

Result of the findings are tools for management decision making. Usually quantitative market research process involves the use of some statistical method such as:

#### 2.5.6.1. Multiple Regressions

This is usually applied in estimating the equation with the best fit for explaining how the value of a dependent variable changes as the values of a number of independent shifts. For instance estimation of best fit, looking at how market value of investment property (the dependent variable) changes in relation to outgoings-insurance, maintenance cost, advertisement, repairs, management fees etc. (independent variables).

## 2.5.6.2. Factor Analysis

Statistical method usually applied by market researchers to determine strongest relations among variables that are correlated. For instance, when a researcher wants to know what combination of variables (or factors) that are most appealing to a particular type of consumers, factor analysis comes to bear in attempt to reduce the data down to just a few variables.

#### 2.5.6.3. Discriminant Analysis

This is a statistical technique usually applied for classification of people, products or other tangibles into two or more categories. For instance, a market researcher can use discriminant analysis to distinguish what advertising channels are most efficient or effective for different types of products.

# 2.5.6.4. Cluster Analysis

Similar to the situation in market segmentation in which a market researcher is interested in the similarities that enhance grouping consumers into segments and at the same time interested in the attributes that make the market segments distinct, Cluster Analysis is a statistical process of separating objects into specific mutually exclusive groups but also relatively homogenous in constitution.

#### 2.5.6.5. Conjoint Analysis

Statistical tool used in analyzing the preferences of consumers with regard to different marketing offers. In conjoint analysis, the researcher is interested in utility function of each attribute, and the relative importance of the preferred attributes to the customer.

#### 2.5.6.6. Multi-Dimension Scaling

Techniques used to produce perception maps of competing brands or products and involves representation by various attributes of the brands.

# 2.6. The Significance of Market Research

The relevance of market research to business development cannot be over-emphasized. Market Research provides management with market information for sound decision making. With ever increasing industry competition organization require sound, efficient and effective market research which will provide accurate and reliable data.

Far reaching management decisions aimed at customer satisfaction cannot be reliably taken without market research relating to potential opportunities, target market selection, market segmentation, etc. (Warren,1983). Market

research helps the organization in assembling information relating to products, pricing, promotion and distribution and provide data relating to general economic condition, technology, public policy impact, and competition, social and cultural changes. Thorough market research ensures effective prediction of customer's response to marketing programmes.

#### 2.7. Consumer Behavior

Differences in opinion by various professional researchers on the subject of consumer behavior is an indication that the subject is far more complex than most people think. Sociologist, Psychologists, Social Psychologists, Ethnologists, Physiologists and several other social scientists and commentators have severally carried out research on Consumer Behavior and Consumer sentiments over the years.

Over the years, there have been scientific theories on human behavior and consumer sentiments aimed at explaining the behavior of customers from the angle of applied behavioral science (Sherry, 1990). Consumer research is characterized by its interdisciplinary approach (Sherry, 1990) which is further illustrated or confirmed by the fact that the study and research on consumer behavior have involved multi-disciplines in social sciences in attempt to explain consumer behavior making it even more difficult to associate.

Kotler, 1988) opined that to explain consumer behavior and markets, there is need to discuss and analyze theories of segmentation since market segmentation is indeed essential for marketing process.. His study further underlined the importance of integrating human activities and behavior into the study of marketing problems. Again, the study showed that with increasing competition, there is overwhelming reasons to focus more on study of customers since customer behaviors usually follow distinct pattern.

(Wich, 1989) is of the opinion that since it has become imperative to focus on customers, it has been observed that customer behavior follows distinct pattern and therefore, market need to be segmented. Market segmentation plays important role in market research and can be achieved in line with diverse characteristics ranging from geographic to psychographic variable. (Michman, 1991) carried out his study on market segmentation and arrived at the following classifications:-

#### 2.7.1. Geographic Segmentation

Where markets are segmented by regions, countries, towns, or any other geographical consideration and may also consider additional variable such as climate, population, density etc.

# 2.7.2. Demographic Segmentation

This is perhaps one of the most popular methods of market segmentation and considers such variable as income, age, sex, family size, life cycle, occupation, education, religion etc.

## 2.7.3. Behavioral Segmentation Product Usage

In this case, consumers are segmented by consideration of their purchasing behavior – light-users or heavy users, i.e. their usage and product loyalty status and their state of purchase etc.

#### 2.7.4. Psychographic Segmentation

Here consumer behavior patterns are segmented by consideration of psychological variable. Such psychological considerations for market segmentation include attitude, activities, values, personal traits etc. which are measured to determine customer behavior. It is common to refer to psychographics as lifestyle (Wells, 1999) and there are several definitions of lifestyle. The use of psychographics in market research offers guaranteed quantitative data samples to deduce customer attitudes and interest.

Lifestyle according to (Engel/Blackwell/Miniard, 1993) is a summary construct defined as patterns in which people live and spend time and money. Lifestyle in relation to marketing concept was first used by Veblen and Weber at the beginning of the 20th century indicating that social situations change along the timescale as well as the expression of human needs and thoughts (Kramer, 1991). In summary, however, lifestyle defines the whole process o how people live, think and behave.

## 2.8. Demand Analysis

The key assumption/theory of demand establishes that as other factors are held constant, and as the price of a good or service increases, consumers will obviously demand less of the particular good or service, and vice versa (Hildenbrand,1983). In other words, it is expected that as the price of a particular real estate investment type increases, consumers or end users/purchasers will demand less of that particular real estate brand.

It is also important at this point to look at the Marshallian demand function (Thyholdt, 2015) which posited an assumption that when a customer is faced with a limited budget, the customers decides on a bundle of goods that maximizes their utility and that a unique bundle of goods exist which maximizes a customer's utility given price and budget situation. Summarily, it is assumed that the customer is rational, capable of choosing the best option of bundles with the entire budget, implying that a price change will not affect the total expenditure (Thyholdt, 2015).

Studies have also been conducted on consumers' tastes and preferences in real estate development and the need for investors to develop for demand instead of developing according to their own tastes and perception. Tilford (2009) in his study on developing for demand observed that few real estate marketing professionals and developers take full advantage of the process of demand segmentation. He noted that "many developers claim they "just know" what the

market wants; rely upon inputs from brokers and consultants to design a project; use brokerage reports to define market rents and trends but very rarely speak with a potential tenant".

From Tilford's observation, real estate development is primarily supply led. According to him, "developer's segmentation decisions are usually only supply oriented and rarely involve much demand level analysis. Decisions about amenities, design, layout and professional as opposed to direct consumer research. Some property types, like hotels are better than other in researching the needs of their target consumer but most developers tend to create a generic product with certain features and amenities that design professionals identify as important. How a consumer values these decisions is rarely known in any detail and a potential opportunity to create a superior product for defined consumer segment is lost...Real estate developers do not always capitalize on this opportunity because the industry has historically been divided, studied and understood in the context of supply". Tilford (2009) further noted that while the concept of demand analysis and product segmentation is common in the manufactured goods industry, it is "not well understood by the real estate community. While numerous academics and marketing professionals have advocated the integration of marketing concepts and techniques commonly used in other industries, many real estate professionals operate under the mistaken impression that marketing is a discipline solely used in advertising and sales". According to Kotler, marketing "should not be narrowly construed as the process of selling products but more broadly understood as satisfying human wants and needs". Real estate development therefore ought to be consumer centric or demand led.

Guy and Harris (1995) in their work on marketing research noted that "driven by the imperatives of investors and developers, rather than the needs of occupiers, property research has evolved as a new science of investment, distances from the dynamics of demand". They opined that two outcomes have resulted directly from this shift to an almost wholly supply-led market. First, as speculative development grew to dominate the market, the relationship between the operational context o occupiers and the resulting structure of demand for space was increasingly neglected (Harris, 1989). Secondly, there has been a general mismatch between the design needs of office occupiers and the space supplied by the development industry. This has resulted in the provision of costly, inefficient and inflexible space (Duffy et al, 1993).

According to Bateman (1985), the notion of speculative property development by definition suggests a system where the building activity is determined primarily by the supplier of property rather than by the eventual user. Consequently, the producer-procurer relationship has been seen as a physical process in which a product – built space – is placed onto the open market, through a predominantly speculative process, in which "prospective occupiers do not commission new premises; they expect to rent or buy the space they need from a pool of new buildings put up by developers" (Cadman and Catalano, 1983). The market is thus seen to be product-led, where the supply and take-up of space is regulated by the activities of the supply industry.

El-Nachar (2012) investigated clients' preferences versus developers' interest in Cairo. According to him, "the Egyptian real estate is now witnessing a strong gap between supply and demand in the residential sector. As a result of unmet demand, Cairo is becoming a permanent real estate market for regional, local and international investors and developers for the next five years (Lang, 2010). However, qualitative aspects related to design quality and architectural characteristics that meet users' demands are left to the developers' assumptions and/or the designers' expectations".

Citing existing literature on the subject, El-Nachar noted that "decisions are dominated by subjective attitudes and motivated by economic values (Knox, et al, 2000) and that "in most cases, developers, investors, and designers of residential projects have conflicts of interests driven by the complex relation between costs and expected benefits for each party (Moorhouse, et al, 1994)". In view of this, housing units are dealt with as products in a package that should be attractive enough to succeed financially. House buyers are seen as "receptors" of the design product that is provided by the market (Michlewski, 2008). Apparently, the relation between what is perceived and preferred and what is provided seemed to be dismissed. However, in several literatures, a balanced relation is advocated between supply and demand in order to achieve successful real estate market (Moorhouse, et al, 1994; Smyth, 1994; Kioussi, 2008).

Jason (1997) studied the effect of architectural design on real estate values using a qualitative approach. He observed that 'good' architecture and quality design have long been shown to increase surrounding property values, create a sense of community and provide a catalyst for future development. According to Jason, architecture and quality design are inputs of space demanded by developers so as to supply high-quality designed space to users. But the level of design demanded by the developer is based in part on the perceived private user level of demand for high quality design. However, it is imperative to understand not only the supply of quality architecture but also the demand drivers for the consumption of this architecture. Jason further observed that in an efficient market free of externalities, the supply and demand for quality architecture between developers and users should always be equal; however, in the face of externalities, there is always the possibility of market failure.

#### 2.9. Measuring the Quality of Market Research

Ogunha {2011} outlined six indicators or tests with which the adequacy of development appraisals and by extension market research or market analysis can be evaluated. They include the following:

Market area delineation test: This test is concerned with whether or not the appraiser or market analyst determined the primary and secondary area from which a proposed project expects to generate its demand. A primary market area is the smallest geographical area from which the proposed development would receive 60% to 70% of the support.

Appropriate use and analysis of primary data test: This test deals with whether not the appraiser conducts
research survey using relevant research instruments the collection of primary data rather than depending on
armchair surveys.

- Appropriate use of secondary data test: This refers to the degree in which general information on population, etc.
   obtained from government and other bodies is streamlined to make it relevant to the target segment of population
   in the market area.
- Market data projection test: This test deals with the degree in which the appraiser project demand and supply
  estimate to times of market entry.
- Market penetration and absorption test Correlation of market data with economic trends test:

According to Thrall {2002}, the appropriate level or amount of information to be covered in a market analysis depends on "what inventor is asking, what is paying for the investment and the inventor's risk-appetite". Vass {2012} noted that "the size of the project, the finances required and complexity associated with the real estate investment has an impact on the extent of the market analysis. For example, a larger regional shopping center requires a more thorough market analysis than a neighborhood shopping center does since the regional shopping center has a larger and more complex market and requires more time and resources in a market analysis". However, from the components of market research highlighted above and in Ogunba's development appraisal adequacy test, it can be inferred that the quality of a real estate investment market research could be determined by the extent to which it provides requisite information on all feasibility and viability indicator for sound investment decision or by the extent it covers the basic element of market and marketability studies, area and consumer research. These basic elements include the following;

- Current demand and supply analysis
- General economic condition
- Customer's taste and preference
- Existing and potential competition
- Demographic information
- Forecast of demand and supply
- Associated Risks

In this study the market research models of Miles {2007}, Darlow {1998], Bone [2005], Geltner [2007], Mazilai {1991], Ling and Archer {2010}, are adopted in evaluating the quality of market research conducted by Estate Surveyors and Values for real estate investment in the study area.

## 2.9.1. Research Gap

The literature review shows that there have been several works on real estate market research by different researchers. Some of the researchers showed the importance attached to market research and the roles of research in business development. Also, the literature review shows both conventional and contemporary market research methods and indicates how market research can be used for competition and consumer analysis.

However, despite all the known study in real estate market research, African countries lack active investment markets due to lack of established standard research order arising from poor real estate establishment of primary sources of market research as obtainable in advance economies. Disappointedly, only two of the firms of global intermediaries of Global Transparency Index (GTI) – Knight Frank and Investment Property databank (IPD) – produces market indicators for African countries (Jones Lang LaSalle, 2004, 2008).

This study will therefore develop standard market research template/model aimed at satisfying the yawning and aspiration of real estate investors and encouraging global investment in Lagos Island.

## 3. Research Methodology

## 3.1. The Study Area

The study area is Lagos Metropolis. Lagos State lies in south-western Nigeria, on the Atlantic coast in the gulf of guinea. According to Esubiyi (1994) the State covers an area of about 3,577 square kilometers, representing 0.4% of Nigeria's territorial landmass. The state shares boundary in the North with Ogun State, West with the Republic of Benin and stretches far over 180 kilometers north of the Guinea Coast of the Atlantic Ocean. Politically, Lagos State had expanded as a result of rural-urban drift and had become a metropolis enclosing settlements such as Mushin, Oshodi, Ikeja, Agege, Shomolu, Bariga, Epe, Ikorodu and Badagry.

Lagos Metropolis has been chosen as the study area because it is the most vibrant commercial city in Nigeria, providing a robust economic base and property development activity which the researcher requires for a good study of the subject matter. Apart from being Nigeria's former capital, Lagos is the largest metropolitan city in Africa. The metropolis is located within the coastal frontage of Lagos State and is bounded in the West, by the Republic of Benin, in the East by Ondo State and Atlantic Ocean in the South and in the North by Ogun State. The metropolis covers an approximate land area of 2,350 square kilometers spreading over three main islands, namely, Lagos, Ikoyi and Victoria islands.

On the economic front, Lagos metropolis has metamorphosed from a small farming and fishing settlement into an important centre of commerce, finance and maritime in Nigeria, housing the headquarters of several banks, industries and commercial enterprises. According to the NIESV Directory (2014), most Estate Surveyors and Valuers aggregate around the major business districts of the metropolis such as Lagos Island, Ikeja, Apapa/Ijora and Lagos Mainland where there is the expectation of a more active property market.

#### 3.2. Research Design

In this study, the cross-sectional survey type of design was applied which includes descriptive, exploratory and explanatory designs, to describe each of variable necessary for the study.

#### 3.3. The Study Population

Market research for real estate investments is essentially an input task, and that task is performed by estate surveyors and valuers and other professionals such as quantity surveyors, accountants and investment analysts. However, this study was limited to real estate investment stakeholders\in the study area some of whom are also developers. In this study both qualitative and quantitative approaches was adopted.

# 3.4. Sampling Technique

In this study, the simple random sampling and purposive sampling technique were applied in determining the respondents constituting the sample size.

# 3.5. Sources of Data and Research Instrument

The data for this study was obtained from primary and secondary sources. Primary data was collected through structured questionnaires/interviews to real estate investors and stakeholders in Lagos Island who constitute the focus population for this study. The secondary data was sourced from textbooks, journals, published papers or articles in the internet and market research reports prepared for real estate investment. Data was collected from the national population commission, National Bureau of Statistics, Central Bank of Nigeria, financial institutions and Property Developers Association.

# 3.6. Method of Data Collection

In a study of this nature various methods of data collection applied and some of which include personal observation, in-depth interviews, mail questionnaires, telephone surveys and self-administered questionnaires. In this study the research instrument was questionnaire.

# 3.7. Techniques of Data Analysis and Presentation

Various techniques exist which are used in the analysis of data collected in research works. For this study, the data collected was analyzed using simple descriptive tools such as frequency distribution tables, charts, percentages, mean score and Pearson correlation and by statistical package for social sciences (SPSS).

#### 3.8. Validity and Reliability of Research Instrument

Validity of research instrument is concerned with ensuring that the structured questionnaire for the study captures adequately the subject of study in terms of its aim and objectives, research questions and hypothesis while reliability issue addresses the question of dependability of the research instrument. To ensure that these are achieved, appropriate questions were structured and submitted to my PhD supervisor. The criticisms, comments and reviews made were used to improve and modify the content of the questionnaire accordingly.

#### 4. Data Analysis/Result/Interpretation

The findings made in this study are presented and discussed subsequently below: The samples were drawn from Estate surveyors/investment appraisers working in estate firms and property development companies within Lagos Nigeria. A total of 125 questionnaires were distributed and 90 questionnaires representing a 72% response rate were retrieved and used for the analysis. All the questionnaires were analyzed with Statistical Package for Social Science (SPSS), version 17. Various descriptive statistics such as frequency distribution and mean scores were used to present the data obtained from the field, supported by pie and bar charts. Correlation analyses were used for the inferential statistics to test the research hypothesis designed for the study.

#### 4.1. Characteristics of the Respondents

Table 1 contains the summary of the characteristics of the respondents in terms of academic qualification, working experience, position in firm and professional qualification. The essence of obtaining information on the respondents' characteristics is to establish that they were in the position to attend to the research questions and that the data so obtained could be relied upon in reaching research conclusions.

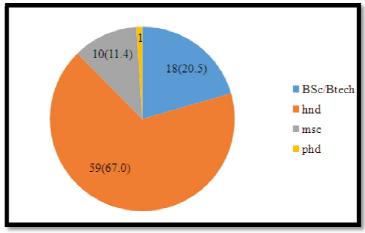


Figure 2: Academic Qualification of the Respondents Source: Field Survey 2017

Figure 2 depicts academic qualification of the respondents. Majority (67%) of the respondents possesses B. Sc/B. Tech, 20.5% hold HND certificate while 11.4% and 1% has studied up to M.Sc and PhD levels respectively.

	Frequency	Percentage
Category of respondents		
Estate surveyors	84	93.3
Estate surveyors/Developers	6	6.7
Total	90	100
Position in firm		
Managing partner	19	22.9
Branch manager	36	43.4
Senior surveyor	28	33.7
Total	83	100
Professional affiliation		
ANIVS/RSV	41	50.0
FNIVS	5	6.1
Others	36	43.9
Total	82	100
Working experience		
1-5 years	32	36.8
6-10 years	24	27.6
11-15 years	16	18.4
16-20 years	9	10.3
21 above	6	6.9
Total	87	100.0

Table 1: Respondents Characteristics Source: Field Survey 2017

Table 1 presents the job description of the respondents. Majority (93%) of the respondents operate solely as estate surveyors while a few (6.7%) operate as estate surveyors and developers. 43.4% were branch managers, 33.7% were senior surveyors and the remaining 22.9% were managing partners. On professional qualification 50% hold ANIVS/RSV, 43.9% were probationers and 6.1% were fellows.

In terms of working experience 36.8% of the respondents have working experience ranging from 1-5 years, 27.6% have between 6-10 years working experience while 36% of the respondents have a working experience of 11-21 years. It means that 63.6% of the respondents have working experience ranging between 6-21 years. Furthermore, majority of the firms (40.4%) have been in operation for between 11-20 years, 14.6% of the firms had been in operation for between 21 years to 30 years and above while 45% of the firms have operated for below 10 years. In other words, 55% of the firms have operated for between 11-30 years.

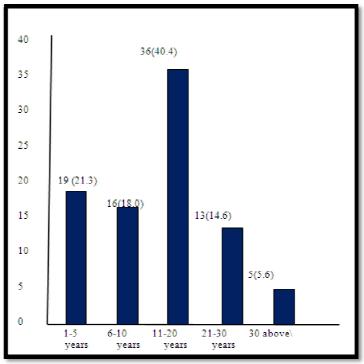


Figure 3: Number of Years in Operation Source: Field Survey 2017

	Frequency	Percentage
Have Your Firm Carried Out Feasibility and Viability		-
Study		
Yes	82	93.2
No	6	6.8
Total	88	100.0
How often have you carried out feasibility And viability		
1	24	22.9
2	25	43.4
3	7	33.7
4	13	16.5
5 above	10	12.7
Total	79	100

Table 2: Firms Experience in Investment Appraisal Source: Field Survey 2017

Table 2 contains the firms experience in investment appraisal and property development. Majority of the firms surveyed (93.2%) indicated that they have carried out investment studies while few have not. The table also reveals that since commencement of operation many of the firms (62%) have carried out only between 1-2 feasibility and viability studies. This shows prima fascia that real estate developers are yet to see the need or relevance of formal appraisal before embarking on real estate developments which agrees with the observations of Wilkinson and Reed (2009), Mckenzie and Betts (2008) and Ogbuefi (2008) that in many developing nations, feasibility and viability study is usually not accorded its critical position in the overall development equation. It is typically one of the characteristics of emerging economies as Okoh (2008) noted.

# 4.2. Objective 1

To ascertain the application of market research by Estate Surveyors and Valuers/Investment Appraisers in development appraisals

	Frequency	Percentage
Do you conduct market research		
Yes	83	98.8
No	1	1.2
Total	84	100
Quality of market research		
Excellent	10	12.8
Very good	19	24.4
Good	40	51.3
Average	7	9.0
Poor	2	2.6
Total	78	100
Is market research relevant in embarking		
on real estate investment		
Strongly agree	73	83.0
Agreed	15	17.0
Total	88	100.0
Is there a correlation between research and profitability		
Strongly agree	43	49.4
Agreed	40	46.0
Undecided	1	1.1
Disagree	2	2.3
Strongly disagree	1	1.1
Total	87	100
Market research enhances marketability and profitability		
Strongly agree	35	39.8
Agreed	47	53.4
Undecided	4	4.5
Disagree	1	1.1
Strongly disagree	1	1.1
Total	88	100

Table 3: Market Research Findings Source: Field Survey 2017

Table 3 contains the summary of findings on the application, relevance, quality, correlation and impact of market research on the marketability and profitability of real estate investment. Majority (98.8%) of the firms indicated that they conduct market research while embarking on feasibility and viability appraisal or project development. This is in consonance with the findings of Gambo et al 92012). According to Gambo, (2012), "100% of Estate Surveyors and Valuers admitted the use of market research while on feasibility study assignment".

	Poor	Average	Good	V. Good	Excellent	Mean Score	Ranking
Trend analysis of demand and supply	1(1.2)	7(8.5)	23(28.0)	32(39.0)	19(23.2)	3.74	1st
Locational structural attributes of proposed development market		9(10.8)	24(28.9)	33(39.8)	17(20.5)	3.69	2 <sup>nd</sup>
All feasibility and viability Covering physical economic Financial legal political cultural indicators	5(6.1)	19(23.2)	27(32.9)	26(31.7)	5(6.1)	3.69	3 <sup>rd</sup>
Current and projected rental sales value	2(2.4)	9(10.8)	21(25.3)	34(41.0)	17(20.5)	3.66	4 <sup>th</sup>
Current level/sources of demand	1(1.2)	5(6.2)	29(35.8)	35(43.2)	11(13.6)	3.61	5 <sup>th</sup>
Customers tastes and Preferences	1(1.2)	7(8.6)	30(37.0)	30(37.0)	13(16.0)	3.58	6 <sup>th</sup>
Forecast of future demands and supply		10(12.0)	34(41.0)	25(30.1)	14(16.9)	3.52	7 <sup>th</sup>
Existing supply or competition	2(2.4)	10(12.2)	7(32.9)	36(43.9)	7(8.5)	3.44	8 <sup>th</sup>
Stage of the property cycle		7(9.0)	42(53.8)	21(26.9)	8(10.3)	3.38	9 <sup>th</sup>
State of the economy	5(6.3)	16(20.0)	29(36.3)	22(27.5)	8(10.0)	3.15	10 <sup>th</sup>
Associated risks		27(30.0)	26(32.1)	20(24.7)	8(9.9)	3.11	11 <sup>th</sup>
Demographic data of target market such as age income marital status etc	5(6.1)	19(23.2)	27(32.9)	26(31.7)	5(6.1)	3.09	12 <sup>th</sup>

Table 4 Evaluation of Level and Depth of Research Conducted for Project Development Source: Field Survey 2017

Table 4 presents the summary of the level and depth of market research conducted for project development with reference to the standard elements of market research based on the market research models of Miles (2007), Darlow (1998), Bone (2005), Geltner (2007), Mazilai (1991), Ling and Archer (2010) and Ogunba (1022). The table reveals a mean score of 3.0 and above on the level and depth of market research conducted by Estate Surveyors and Valuers in the study area. The implication of this is that the application of market research by Estate Surveyors and Valuers in Lagos metropolis is generally good.

4.3. Objective 2

To determine the quality of market research where conducted.

	Rarely	Occasional	Frequent	Very Frequent	Mean Score	Ranking
Current and projected rental or	3(3.6)	4(4.8)	35(41.7)	42(50.0)	3.38	1 <sup>st</sup>
sales value						
Forecast of future demand and supply	1(1.2)	9(10.6)	37(43.5)	38(44.7)	3.32	2 <sup>nd</sup>
Locational, neighborhood attributes of proposed development	3(3.6)	8(9.6)	36(43.4)	36(43.3)	3.27	3 <sup>rd</sup>
Trend analysis of demand and supply	1(1.2)	16(18.6)	36(41.9)	33(38.4)	3.17	4 <sup>th</sup>
All feasibility and viability indicators	2(2.4)	11(12.9)	43(50.6)	29(34.1)	3.16	5 <sup>th</sup>
Current level/sources of demand		12(14.8)	48(59.3)	21(25.9)	3.11	6 <sup>th</sup>
Customers tastes and preferences	3(3.7)	16(19.8)	38(46.9)	24(29.6)	3.02	7 <sup>th</sup>
Existing supply or competition	4(4.8)	13(15.7)	47(56.6)	19(22.9)	2.98	8 <sup>th</sup>
State of the economy	2(2.6)	24(30.8)	35(44.9)	17(21.8)	2.86	9 <sup>th</sup>
Stage of the property cycle	3(3.8)	24(30.4)	43(54.4)	9(11.4)	2.73	10 <sup>th</sup>
Associated risks	2(2.4)	36(43.3)	31(37.3)	14(16.9)	2.69	11th
Demographic data	11(12.6)	27(31.0)	44(50.6)	5(5.7)	2.49	12 <sup>th</sup>

Table 5: Elements covered in Market Research Source: field survey 2017

The quality of market research carried out by Estate Surveyors and Valuers was examined by looking at the extent to which the standard elements of market research as stipulated in Bone (2005), Geltner (2007), Mazilai (1991) and Ogunba (2011) are covered using the Likert scale of rarely, occasionally, frequency and very frequently. I Table 5.3 above, about half (51.3%) of the respondents indicated that the quality of market research conducted is good, 11.6% indicated that the quality of market research was below average while 2.6% indicated that the quality of market research done is poor. With respect to the market research elements, Table 5.5 reveals that current and projected rental is most frequently covered in market research with the highest mean score of 3.38, followed by forecast of future demand and supply with 3.32, locational, structural and neighborhood attributes of proposed development with 3.27 and trend analysis of demand and supply with a mean score of 3.17. Stage of property cycle with mean score of 2.73, associated risk with 2.69 and demographic data of target market with mean score of 2.49 are occasionally covered in market research.

	Poor	Average	Good	Very Good	Excellent	Mean Score	Ranking
Trend Analysis of demand and supply	1(1.2)	5(6.0)	21(25.0)	43(51.2)	14(16.7)	3.76	<b>1</b> st
Locational, structural attributes of proposed development		11(12.9)	23(27.1)	32(37.6)	19(22.4)	3.69	2 <sup>nd</sup>
All feasibility and viability		8(9.5)	24(28.6)	38(45.2)	14(16.7)	3.69	3rd
indicators covering phys	ical						
economic financial legal political cultural indicators Current level/sources of Demand	1(1.2)	6(7.1)	28(32.9)	38(44.7)	12(14.1)	3.63	4 <sup>th</sup>
Customers tastes and Preferences		7(8.5)	32(39.0)	32(39.0	11(13.4)	3.57	5 <sup>th</sup>
Current and projected		12(14.1)	26(30.6)	35(41.2)	12(14.1)	3.55	6 <sup>th</sup>
rental/ sales value							
Existing supply or		9(10.6)	34(40.0)	38(44.7)	4(4.7)	3.43	7 <sup>th</sup>
competition Forecast of future							
		14(16.5)	37(43.5)	26(30.6)	8(9.4)	3.33	8 <sup>th</sup>
demand and supply Stage of the property cycle		15(18.5)	37(45.7)	23(28.4)	6(7.4)	3.25	9 <sup>th</sup>
Demographic dataof target market such as age, income, marital status etc.	2(2.4)	16(19.0)	34(40.5)	26(31.0)	6(7.1)	3.21	10 <sup>th</sup>
Associated risks		20(24.7%)	40(49.4%)	14(17.3%)	7(8.6%)	3.09	11th
State of the economy	2(2.4%	23(27.1%)	37(43.5%)	16(18.8%)	7(8.2%)	3.03	12 <sup>th</sup>

Table 6: Accuracy of Market Research Findings/Projection

Since the accuracy of market research findings, ceteris paribus, provides some clue as to the quality of market research conducted, the accuracy of market research findings and projections compared with developments at market entry of proposed developments was also verified drawing from the years of experience of Estate Surveyors and Valuers in the study area in real estate appraisal. Table 5.6 shows that the pre-investment findings on all the elements of market research as rated by the respondents are relatively accurate with a mean score of 3 and above.

4.4. Objective 3
To establish the factors militating against effective market research

	Nil	Very low	Low	Moderate	High	Very high	Mean score	Ranking
Shortness of time to meet clients delivery date	4(4.5%)	4(4.5%)	8(9.1%)	16(18.2%)	39(44.3%)	17(19.3%)	4.5114	<b>1</b> st
Lack of relevant data	6(6.9%)	2(2.3%)	13(14.9%)	19(21.8%)	36(41.4%)	11(12.6%)	4.2644	2 <sup>nd</sup>
Absence of defined	4(4.9%)	4(4.9%)	9(11.1%)	24(29.6%)	33(40.7%)	7(8.6%)	4.2222	3 <sup>rd</sup>
industry standard Incompetence	9(10.2%)	5(5.7%)	12(13.6%)	31(35.2%)	24(27,3%)	7(8.0%)	3.875	4 <sup>th</sup>
Inexperience	9(10.6%)	4(4.7%)	14(16.5%)	32(37.6%)	17(20.0%)	9(10.6%)	3.8488	5 <sup>th</sup>
Negligence	4(4.7%)	14(16.3%)	14(16.3%)	24((27.9%)	19(22.1%)	11(12.8%)	3.8353	6 <sup>th</sup>

Table 7: Factors Militating Against Effective Market Research

The factor militating against effective market research is presented in Table 57. The table reveals that shortness of time to meet clients' delivery data, lack of relevant data and absence of defined industry standard, are the most critical factors militating effective market research while incompetence, inexperience and negligence pose less challenge.

It means that, although the quality of market research conducted by Estate Surveyors and Valuers in the study area was adjudged good by the respondents, it is not without challenges.

# 4.5. Objective 4

To Ascertain How Market Research Affects the Marketability and Profitability of Real Estate Investments

	Frequency	Percentage
Extent to reach market research contribute to		
None	4	4.8
Slightly	8	9.5
Highly	55	65.5
Extremely	17	20.2
Total		100

Table 8: Contribution of Market Research to Marketability and Profitability Source: Field Survey 2017

The contribution of market to marketability and profitability of property investments based on a number of property investment performance indicators such as rate of return, sale value, rental value, vacancy rate, ease of letting, ease of sale and loss of capital was examined drawing from the firms' experiences. The outcomes are presented in Tables 5.8 and 5.9. 65% indicated that market research has high impact on profitability and marketability of real estate investments while 4.8% of the respondents indicated that it has no impact.

	Nil	Very low	Low	Moderate	High	Very	Mean	Ranking
						high	score	
Sale of value		1(1.2)	4(4.7)	25(29.1)	42(48.8)	14(16.3)	4.74	<b>1</b> st
Rate of return			6(7.1)	28(33.3)	36(42.9)	14(16.7)	4.69	2 <sup>nd</sup>
Rental value	3(3.5)		2(2.3)	27(31.4)	38(44.2)	16(18.6)	4.69	3 <sup>rd</sup>
Vacancy value	2(2.4)	1(1.1)	12(14.1)	24(28.2)	34(40.0)	12(14.1)	4.45	4 <sup>th</sup>
Ease of sale		6(7.1)	8(9.4)	37(43.5)	25(29.4)	9(10.6)	4.27	5 <sup>th</sup>
ease of letting	4(4.7)	1(1.2)	9(10.5)	37(43.0)	28(32.6)	7(8.1)	4.22	6 <sup>th</sup>
Loss of capital	7(8.1)	9(10.5)	23(26.7)	18(20.9)	21(24.4)	8(9.3)	3.71	7 <sup>th</sup>

Table 9: Contribution of Market Research in Terms of Property Investment Performance Indices

Source: Field Survey 2017

Table.9 reveals that market research contributes highly to sale value with a mean score of 4.74, rate of return and rental value with an equal mean score of 4.69 and averting loss of capital with a mean score of 3.71. No empirical data were produced from their records to back up these ratings and as such could be subjects of further in subsequent works.

#### 4.6 . Test of Hypothesis

• HO: there is no significant relationship between the quality of market research and real estate investment performance.

Correlation Coefficient	0.240				
Significant	0.072				
N	57				

Table 10: Pearson Correlation Analysis between the Qualities of Market Research and Real Estate Investment Performance

The above hypothesis was tested with Pearson correlation analysis and the result obtained is presented in the Table 10

From the result shown, the correlation coefficient is significant at 10% level. The coefficient, 0.240, depicts weak but positive relationship between the quality of market research and real estate investment performance. It implies that investment performance in real estate has some measure of relationship with the quality of market research that preceded it. Hence, this study suggests that the null hypothesis that 'there is no significant relationship between the quality of market research and real estate investment performance' is rejected, and the alternative hypothesis is supported.

4.7. Review of Investment Reports to Ascertain Quality of Market Research Conducted by Investment Advisers for Commercial Real Estate Investments in Lagos, Nigeria.

Since the results obtained via questionnaires, were largely based on the respondents views, perceptions and experiences with no empirical evidence supplied to back up the claims, investment appraisals prepared by investment advisers and Valuers were reviewed to ascertain the quality of market research conducted for these developments.

The projects studied include the following:

- Shopping complex development (Caesar's Place) at Kofo Abayomi Avenue, Apapa Lagos.
- Residential development at No. 1 Temple Road, Ikoyi, Lagos.

- Shopping complex development at 72, Broad Street, Lagos.
- Garage/International market development at Iddo, Lagos
- Hotel and Suites project at 10-12, Agungi Road, Lekki, and Lagos.
- Office development at No. 12B, Kofo Abayomi Road, Victoria Island, Lagos.
- Hotel development along Lekki-Epe Expressway, Ajah, Lagos.
- Residential development at No. 5A Bayo Kuku Street, Ikoyi, Lagos.
- A high rise residential complex at Victoria Island, Lagos.
- Office development at South West Ikoyi, Lagos.
- Modern market development at Alaba, Ojo Local Government Area, Lagos.
- Hotel development at Maryland, Ikeja, Lagos.
- Hotel development at Victoria Island Annexe, Lagos.
- Luxury apartment's development off Ahmadu Bello Way, Victoria Island, Lagos.
- Commercial development on Broad Street, Lagos.
- Hotel development at Ogba, Lagos.
- Residential development at Carlton Gate Estate, Lekki, Lagos.
- Ultra-modern market development at Ikeja, Lagos.
- Commercial property development for Raeanna Nigeria Limited.
- Commercial development at Joseph Naaman Close, Off Karim Kotun Street, Victoria Island, Lagos.

Standard Market Research		Free	quency			Perce	entage	
Element/Component	RC	RNC	SDP	SDNP	RC	RNC	SDP	SDNP
Target Market Segmented	2	18			10%	90%		
Current level of demand	4	16	0	20	20%	80%	0%	100%
Sources of demand	4	16	0	20	20%	80%	0%	100%
Existing supply or	8	12	1	19	40%	50%	5%	95%
competition								
Customers tastes/	2	18	0	20	10%	90%	0%	100%
Preferences								
State of the economy	6	14	0	20	30%	70%	0%	100%
Forecast of future demand	4	16	0	20	20%	80%	0%	100%
and supply								
Locational/Neighborhood	6	14	0	20	30%	70%	0%	100%
attributes								
Stage of Property Cycle	0	20	0	20	0%	100%	0%	100%
Current rental or sale value	20	0	20	0	100%	0%	100%	0%
Projected rental or sale value	20	0	20	0	100%	0%	100%	0%
Trend analysis of demand	4	16	1	19	20%	80%	10%	90%
and supply								
Demographic data	0	20	0	20	0%	100%	0%	100%
Associated risks	2	18	0	20	20%	80%	0%	100%

Table 11: Review of Feasibility Study Reports on Proposed Developments

# <u>Legend</u>

RC = Research conducted

RCN = Research not conducted

SDP = Statistical data presented

SDNP = Statistical data not presented

The result of the review of the above investment studies is presented in Table 11 above. The above table and in-depth study of the investment appraisals reports revealed the following:

- Only 10% of the reports dealt with the issue of segmentation or delineation of the target markets.
- 20% of the report indicated that research or survey was conducted on the current level of demand but no statistical data was presented to back up the stated level of demand. An active market is often presumed.
- Existing supply or competition was hinted on in 40% of the reports. Generally it is indicated in the reports that there is a yawning gap in the supply of proposed developments with no supporting statistical data.
- Customers' tastes and preferences are considered in just 10% of the report. It means that the market for proposed developments is currently a supply-led market.
- Forecast of future demand and supply was done in only 20% of the reports.
- No attention is paid to the stage of the property cycle of proposed developments.

- 100% of the reports covered current rental or scale value and projected rental or sale value. This is understandable as these data are required for cash flow analysis without which no viability conclusions could be reached.
- General statements on market condition, state of the economy and demand and supply is made without statistical data to back them up.
- Associated and demographic data are given little or no consideration.
- Trend analysis of supply and demand which is a basic pre-requisite for forecasting is not researched on in the reports.

The implication of the above observations is that the data content of market research conducted by Investment Appraisers in the study area falls below the standards indicated in the literature and prescribed in the models adopted for this study. It therefore follows that the quality of market research carried out by Development appraisers based on the above findings is poor contrary to the result obtained via questionnaires as earlier reported.

# 5. Summary of Findings, Conclusion and Recommendations

## 5.1. Summary of Findings

The study can be summarized as follows:

- From the feed-back obtained through the questionnaires administered, Investment Analysts in the study area do conduct market research while embarking on appraisal for project development.
- 11.6% of the respondents indicated that the quality of market research conducted by
- Investment advisers in the study area is below average while a greater percentage (51.3%) indicated that the quality of market research conducted is good.
- With respect to the coverage of market research elements, the study showed that current and projected rental values with a mean score of 3.38 are frequently covered in market research while such elements as stage of the property cycle, associated risks and demographic data are occasionally covered.
- Majority of the respondents indicated that market research has high impact on profitability and marketability of real estate investments, contributing highly to sale value with a mean score of 4.74, rate of return and rental value with an equal mean score of 4.69 and averting loss of capital with a mean score of 3.71.
- The study also revealed that the pre-investment findings on all the elements of market research at point of market entry of proposal developments are relatively accurate with a mean score of 3 and above.
- The study further revealed that shortness of time to meet clients' delivery data, lack of relevant data and absence of defined industry standard with a mean score of between 4.2 to 4.5 are the most critical factors inhibiting effective market research. Other factors such as incompetence, inexperience and negligence, were rated as presenting less challenge with a mean score of 3.8.
- It was also found that there is a weak but positive relationship between the quality of market research and real estate investment performance with a correlation coefficient of 0.240. This means that investment performance in real estate has some measure of relationship with the quality of market research preceding it. Hence, the null hypothesis that 'there is no significant relationship between the quality of market research and real estate investment performance' is rejected, and the alternative hypothesis is supported.
- Finally, an empirical review of the investment reports prepared by investment advisers revealed that they were of low quality with reference to the data content of market research conducted as presented in the reports. General statements on market conditions, state of the economy and demand and supply are made without adequate statistical data to back them up.

#### 5.2. Conclusion

From the findings made in this research, it could be empirically concluded as follows:

That the quality of market research conducted by real estate investors is low contrary to their claims.

# 5.3. Recommendation

Since there is a significant relationship between market research and profitability, it is hereby recommended as follows:

- That a standard market research manual or standard pre-investment study manual stipulating the data content of market research should be provided by relevant authorities and concerned professionals to ensure standardization and promotion of culture of quality in market research.
- That a property data bank should be established by professional associations such as the Nigerian Institution of Estate Surveyors and Valuers to help address the issue of lack of data for effective of market research.
- That market research should form part of the CPD training courses of professionals in built environment to assist further in equipping investment analysts for this important service.

#### 6. References

- i. Ajao, S, (2011). Assessment of the Relative Impact of the Factors Affecting Residential Property values in Ikoyi, M.Sc Thesis, University of Lagos, 9-17.
- ii. Ajayi, C.A, (2009). International Valuation Standards as they apply in the use of the Investment Method of Valuation and in Mortgage Valuation, The Estate Surveyor and Valuer, 32(1), 7.
- iii. Antwi, A and M. Omirin (2006). The Investment performance of informal properties in Accra, Ghana and Lagos, Nigeria (RICS Research Paper Series 6 (4).
- iv. Asabre, P.K. (1981). The determinant of land values in an African City: The case of Accra, Ghana; Land Economics 57 (3).
- v. Babawale, G.K, Koleoso, H.A, and Otegbulu, A.C, (2012). A Hedonic Model for Apartment Rental in Ikeja Area of Lagos Metropolis, Mediterranean Journal of Social Sciences 3 (3), 109-110.
- vi. Bello, M.O, (2003). A Comparative Analysis of the Performance of Residential Property Investment and Investment in Securities in Lagos, Nigeria, The Estate Surveyor and Valuer, 26 (1), 7-14.
- vii. Bello, M.O and Babajide O, (2005). The Accuracy of Prediction in Commercial Property Development Appraisal in Lagos, Nigeria, Pakistan Journal of Social Sciences, 3(9), 1103-1104.
- viii. Britton, W, Davies, K and Johnson, T, (1980). Modern Methods of Valuation, London, The estate Gazette Limited, 1-2.
- ix. Button, R, (2012). Market Research and Analysis, PA Housing & Land Development Conference, 2010, pp. 1-8.
- x. Chinedu, C.N and Fidelis, I.E, (2011). Building Construction Project Management Success as a Critical Issue in Real Estate Development and Investment, American Journal of Social and Management Sciences, pp.56-57.
- xi. Cowley, M.W, (2007). Property Market Forecasts and their Valuation Implications: A Study of the Brisbane Central Business District Office Property Market, Queensland University of Technology.
- xii. Dick Warren (1983) 1983 Survey of Marketing Research: Chicago: American Marketing Association.
- xiii. Eldred, G.E., (2006). Real Estate 101: Building Wealth with Real Estate Investments, New Jersey, Trump University, 100-101.
- xiv. Enever, N, (1978). The Valuation of Property Investment, London, the Estate Gazette Limited, 1.
- xv. Fanning, S.F. (2005). Market Analysis for Real Estate, Chicago, Appraisal Institute.
- xvi. Freedman, J.P., and Hariss, J.K. (2005). Keys to Investing in Real Estate, New York, Barron, 58.
- xvii. Gambo, Y.L, Otegbulu, A.C, Omirin, M.M, and J.U. Osagie, (2012). Market Research
- xviii. Applicability among Nigerian Estate Surveyors and Valuers in Project Appraisal, Mediterranean Journal of Social Sciences, 3, 455-461.
- xix. Galaty, F.E, Allaway, W.J and Kyle, R.C, (2003). Modern Real Estate Practice, Chicago, Dearborn Real Estate Education, 303-304.
- xx. Ge and Hartfield, (2006). The Quality of Data and Data Availability for Property Research, School of the Built Environment, United Institute of Technology, New Zealand, 1-2.
- xxi. Georgiev, G, (2002). The Benefits of Real Estate Investment, A working Paper, University of Massachusetts, 3, schneeweis@som.umass.edu.
- xxii. Graaskamp, J.A. (2001). A Rational Approach to Feasibility Analysis, The Appraisal Journal, 513-521.
- xxiii. Greycourt, (2009). Investing in Real Estate A Primer, White paper No. 47A, Greycourt & Co., 4.
- xxiv. Hair J.F; Bush R.P. & Ortinau D.J (2006); Marketing Research, 3<sup>rd</sup> Edition McGraw-Hill New York.
- xxv. Hildenbrand, W. (1983). On the "Law of Demand". Econometrica, 51(4), 997-1019.
- xxvi. Doi: 10.2307/1912048. Isaac, D, (1998). Property Investment, London, 1-33.
- xxvii. Jason, A.M. (2005). Assessing the Effect of Architectural design on Property Values: A Qualitative Approach, M.Sc. Thesis, Massachusetts Institute of Technology, 7-30.
- xxviii. Jelena, S, (2009). Real Estate Investment Optimal Portfolio Selection: A case Study of European Countries, Issues of Business and Law, 1, 1.
- xxix. Jones Lang Lasalle (2004), Global Real Estate Transparency Index.
- xxx. Jones Lang LaSalle (2008). Global Real Estate Transparency Index.
- xxxi. J.Scot Armstrong; Rodsrick J. Brodie and Andrew G. parsons (2001). "Hypothesis
- xxxii. Marketing Science: Literature review and Publication Audit". Marketing Letters 12(2)
- xxxiii. 171-187.
- xxxiv. Kauko, T., (2010). Sustainable Urban Property Development and Neighborhood Dynamics. The
- xxxv. Open Urban Studies Journal, 3, 104.
- xxxvi. Kerin R.A; Hartley S.W & Rudelius W. (2009) Marketing: The Core. 3rd edition,
- xxxvii. McGraw-Hill New York.
- xxxviii. Kone, D.L, (2006). Land Development, Washington, BuilderBooks.com, 1-18.
- xxxix. Larbi, W.O. (1994). Urban Land Policies and delivery of developed land.
  - xl. Levy, D.S, (1995). Modern Marketing Research techniques and the Property Professional, Property Management, 13(3), 33-40.
  - xli. Malhotra N. (2005). Marketing Research: An Applied Orientation; 2006 (5th Ed) by
  - xlii. Naresh Malhotra (SBN.0-13-222117-9).
  - xliii. Maurice, A. Unger, M.A. (1974). Real Estate Principles and Practice, Ohio, South-Western Publishing Co., 23-30.
  - xliv. McDonald and Malcom (2007). Marketing Plans (6th Ed). Oxford England. Butterworth Hernemunn.

- xlv. McGreal, (1997). Comparative Analysis of Investment Performance Across Selected
- xIvi. International Cities, Paper presented at the Conference of the American Real Estate Society, Florida.
- xlvii. Mckenzie, D.J and Betts R, (2008). Essentials of Real Estate Economics, United States, Centage Learning, 337-340.
- xlviii. Mfam, C.E and Kalu, U, (2008). An Analysis of the Effect of Rent Plateaux on Rental Real
- xlix. Estate Investment in Calabar South Eastern Nigeria, Journal of the Environment, 2(1), 62-72
  - I. Miles, M.E, Berens, C.L, Eppli, M.J and Weiss, M.A, (2007). Real Estate Development
  - li. Principles and Process, Washington, Urban Land Institute, 13-14.
  - lii. Nachar, B.E., (2011). Design Quality in the Real Estate Market: Client's Preferences Versus
- liii. Developers Interests, International Journal of Architectural Research, 5 (2), 77-80.
- liv. Nico, R and Wernecke, M, (2002). Real Estate Cycles in Germany Causes, Empirical
- Iv. Analysis and Recommendations for the Management Decision Process, Paper presented at the 8th Conference of the Pacific Rim Real Estate Society, New Zealand, 1-7.
- lvi. Ogbuefi, J.U, (2011). Aspects of Feasibility and Viability Studies, Enugu, Institute for development Studies, 45-48.
- Ivii. Ogedengbe, P.S and Adesopo, A.A (2003). Problems of Financing Real Estate Development in
- Iviii. Nigeria, J. Hum. Ecol, 14(6), 425-427.
- lix. Ogunba, O.A, (2011). How Adequate are Market Analysis in Pre-development Appraisal Reports? Journal of Contemporary Issues in Real Estate, 1(1), 23-28.
- Ix. Ogunba, O.A, Ojo, O and Boyd, T.P, (2005). Assessing Development Appraisal Risk with reference to Client Specific Risk Tolerance and Perspectives, Australia, Queensland University of Technology.
- Ixi. Okoh, V.O, (2008). Real Estate Investment Appraisal, Lagos, Victor Okoh & Co., 1-13.
- lxii. Olawande, O.A, (2009). Developing Predictive Models of Commercial Property Values in Emerging Economy: Case Study of Ikeja, Nigeria, A Paper Delivered at the 9<sup>th</sup> International Conference organized by African real Estate Society.) E-mail: wandeoni@yahoo.com)
- lxiii. Ojo, B, (2006). Development Appraisal Practice and Risk adjustment in Commercial property Development in Lagos Metropolis, Journal of Land Use and Development Studies, 2(1).
- lxiv. Otegbulu, A.C, Mohammed M.I and Babawale G.K, (2011). Survey on Risk Assessment
- Ixv. Techniques Applied in Real Estate Development Projects in Nigeria, Journal of Contemporary Issues in Real Estate, Department of Estate Management, University of Lagos, 1(1), 101-195.
- lxvi. Otegbulu, A, (2011). The Impact of Jacuzzi Bathtubs on House Prices, Journal of Sustainable development, 4 (3), 190-201.
- Ixvii. Oteh, A, (2011). The Role of Real Estate in Capital Market Development, Paper presented at a Nigerian Institution of estate Surveyors and valuers Seminar and Fellow Night, Lagos, 1-7. Overton, R, (2007). Feasibility Studies Made Simple, Australia, Martin Books.
- Ixviii. Richmond, D, (1985). Introduction to Valuation, London, Macmillan, 21.
- lxix. Royston, P.J. (2004). A Post-autistic Approach to the Study of real Estate Investment Decision Making, A Paper presented to the 10th Pacific Rim Real estate Society Conference, Bangkok, Thailand, 3, (paul.royston@nvu.ac.uk).
- lxx. Sharma, D.D (1999) Marketing research: Principle, Applications and cases. 2nd Edition.
- Ixxi. Sultan Chande & Sons. New Delhi.
- Ixxii. Simon, G.S and Harris, R, (1995). Property in a Global Risk Society: Towards Marketing Research, University of Newcastle, 1-32.
- Ixxiii. Sopon, P, (2011). Real Estate Cycles, What Can We Learn? Paper presented at the 17th AVA Pre-congress, Cambodia.
- Ixxiv. Thyholdt, S.B. (2015). Just like putting Scissors to a market. Investigation supply and demand relations of farmed Atlantic Salmon. UiT. The Arctic University of Norway, Faculty of Biosciences; Fisheries and Economics; School of Business and Economics, Tromso.
- lxxv. Tilford, M.B. (2009). Developing for Demand: An Analysis of Demand Segmentation Methods and Real Estate development, M. Sc Thesis, Massachusetts Institute of Technology, 1-20.
- Ixxvi. Umeh, J.A, (1977). Feasibility and Viability Appraisal, Ibadan, Onibonoje, 1-29.
- Ixxvii. Vass, s, (2012). Investing in Commercial Real Estate An Analysis of the Purchasing Power of Stockholm's Retail Areas, M.Sc Thesis, The Royal Institute of Technology, Stockholm. Wilkinson, S and Reed, R, (2008). Property Development, Oxo, Routledge, 247-259.
- Ixxviii. Wyman, D, (2011). A New Paradigm Shift in Real Estate Valuation? Journal of Property Investment & Finance. 29(4), 341-358.