

**FACTORS INFLUENCING PURCHASE INTENTION OF REAL  
ESTATE IN JEDDAH, SAUDI ARABIA WITH THE  
MODERATING EFFECT OF PUBLIC SERVICE LOCATION  
AND PURCHASER'S DEMOGRAPHICS**

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**UNIVERSITI SAINS MALAYSIA**

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**By**

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## **Dedication**

***To:***

***My Father and my Mother***

***My Wife***

***My Brothers and Sisters***

***My Supervisor***

## **ACKNOWLEDGEMENTS**

I am deeply grateful to the Almighty Allah, the Most Gracious and Most Merciful, who helped me through my way of pursuing his help during my life and gave me the light and power to do this research. No god to worship but Allah. May the peace, blessings and glorification of Allah be upon our noble prophet Muhammad (SAW), his companions, and everyone else who follows their footsteps until the day of resurrection.

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May Allah bless Malaysia and all Muslims all over the world.

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**FAKTOR YANG MEMPENGARUHI NIAT MEMBELI HARTA TANAH DI  
JEDDAH, ARAB SAUDI DENGAN KESAN PENYEDERHANA LOKASI  
PERKHIDMATAN AWAM DAN DEMOGRAFI PEMBELI**

**ABSTRAK**

Jeddah mempunyai populasi lebih dari tiga juta orang yang mewujudkan permintaan tinggi terhadap kediaman. Ini disebabkan oleh peningkatan harga rumah, walaupun bekalan sama dengan permintaan, harga masih lagi melambung naik dan permintaan juga semakin meningkat. Penyelidikan ini menguji faktor yang mempengaruhi niat pembelian harta tanah di Jeddah, Arab Saudi dengan kesan penyederhana oleh lokasi perkhidmatan awam dan demografi pembeli. Asas teori kajian ini adalah Teori Tindakan Beralasan (Theory of Reasoned Action) dan Teori Tingkah Laku Terancang (Theory of Planned Behavior). Teknik persampelan yang digunakan dalam kajian ini adalah persampelan mudah tak kebarangkalian. Data dikumpul melalui teknik kaji selidik. Seramai 322 responden terlibat dalam kajian ini menggunakan pendekatan penyelidikan kuantitatif. Analisis deskriptif dan inferensi (regresi) digunakan bagi menganalisis data kuantitatif. Keputusan analisis deskriptif menunjukkan pembeli rumah di Jeddah dan Kerajaan Arab Saudi banyak memfokuskan ke atas perkhidmatan awam, kelakuan, norma subjektif, lokasi dan persepsi kawalan kelakuan. Analisis kolerasi menyebabkan kewujudan kolerasi antara kelakuan, norma subjektif dan persepsi kawalan kelakuan, lokasi perkhidmatan awam dan niat. Kelakuan, norma subjektif, persepsi kawalan kelakuan, perkhidmatan awam dan lokasi dikenal pasti mempunyai kolerasi positif dengan niat kelakuan. Kajian menunjukkan bahawa terdapat hubungan signifikan antara kelakuan, norma subjektif, dan niat membeli harta tanah. Hasil regresi bertingkat dan penyertaan perkhidmatan awam, lokasi dan demografi pembeli mengesahkan bahawa perkhidmatan awam,

lokasi dan demografi pembeli mempunyai kesan penyederhana ke atas kelakuan membeli. Keputusan kajian mempunyai implikasi bagi teori pemasaran, tindakan pengurusan, pembuat keputusan kerajaan dan individu.

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**ABSTRACT**

Jeddah with population of more than three million people creates high demand on housing. This has resulted in increase in housing prices, even though when supply equal to demand, the price still going higher and demand keep going higher too. This research examined the factors influencing purchase intention of real estate in Jeddah, Saudi Arabia with the moderating effect of public service location and purchaser's demographics. The theoretical basis of this study is the Theory of Reasoned Action and Theory of Planned Behavior. The sampling technique used in this study is the non-probability convenience sampling. Data was collected through a survey method. A total of 322 respondents were involved in the study which is quantitative research approach. Descriptive analysis and inferential analyses (regression) were used to analyze the quantitative data. The descriptive analysis results shows that purchasers of houses in Jeddah in the Kingdom of Saudi Arabia focus mostly on public service, attitude, subjective norms , location and perceived behavior control. Correlation Analysis provides the existence of the correlation between attitude, subjective norms, and perceived behavioral control, public service location and intention. Attitude, subjective norm, perceived behavior control, public service and location were found to have positive correlation with behavior intention. The findings revealed that there is a significant relationship between attitude, subjective norm and intention to purchase real estate. The results of hierarchical regression and inclusion of public service, location and purchasers' demographics found that public service, location and purchasers' demographics have moderating effect on purchasing behavior. The results

have implication for marketing theory, managerial action, government decision makers and individuals.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Background of the Study**

The real estate sector is currently a major focus of development in the Kingdom of Saudi Arabia (KSA), due to its important role in driving economic growth and creating more jobs. It is estimated that the real estate sector triggers economic activities in over 92 different real estate-related industries. These activities include pre-construction studies like real estate consulting, engineering construction companies, and marketing corporations. Some industries are linked to the construction phase such as contracting, building materials, while some are involved with the post-construction phase such as operation and maintenance companies. Growth of the real estate sector in the KSA has increased activities and expanded industries. It can therefore be implied that the real estate sector is stimulating growth in the economy of the Kingdom of Saudi Arabia.

The real estate sector in the Kingdom of Saudi Arabia is witnessing high growth rates in all respects, especially in construction of housing projects, establishment of urban projects, and building new economic cities in line with its economic recovery policies and investment directions that is aimed at mitigating risk and ensuring safe investments.

Several factors have contributed to the increase in growth in the real estate sector. These include contribution of about 55 billion Saudi Riyals to the Gross Domestic Product (GDP) based on the sector's Development Plan and about 9.5% to non-oil GDP. The real estate sector also ranked second in contributing to the GDP of KSA after the oil and gas sector. The real estate sector GDP also increased with over 50% from 1999 to 2008 at an average annual growth rate of 5%. The growth rate

increased to 6% and contributed 7.2% to the GDP in 2009. In fact, the value of real estate transactions in the Kingdom in 2009 doubled, exceeding the one trillion Saudi Riyals of 2008 based on reports. This confirms that the demand for real estate is again likely to increase. Additionally, the resultant economic buzz and the increasing volume of liquidity, contributed largely. There was also the steady increase in population associated with an increased demand for real estate.

The growing demand for customized properties for housing or commercial activity in the real estate subdivisions in the KSA in recent years is (with current economic growth) expected to reach about 484 billion Saudi Riyals (SR). This amount is almost equal to the estimated new real estate investments between now and the year 2020. This will be the investment required to meet the increasing demand for various products of real estate like: land, residences, investments, and commercial properties. This does not include demand for public infrastructure in other industries, agriculture, chalets, hotels and tourism, education, health, commerce and industries, etc.

This anticipated season of boom in the real estate sector can be regarded as one of the most important economic drives that will attract investment into the country. Additionally, investment transformations, and individual savings in this sector is expected to further increase unparalleled prosperity. All these will however be determined by the availability of capital, enabling environment and huge investments in the sector.

The Kingdom of Saudi Arabia has an oil based economy and according to the Oxford Business Group, this roughly accounts for 80% of its budget revenues, 45% of its GDP, and 90% of its export earnings. After oil, the real estate sector is the focal point of its economy. This sector increased by 6.8% in 2011. The demand for real estate in KSA is poised to make it one of the fastest growing sector in the Arabian Gulf

region. The price of rental and sales of real estate however maintained their levels at a time when levels dropped in countries neighboring the KSA (Oxford Business Group, 2012).

The Kingdom of Saudi Arabia's real estate market demand for housing remains strong, especially in the large urban centers of Riyadh and Jeddah where almost half of Saudi Arabians live. In fact, in certain city markets such as Riyadh and Jeddah, prices have been inching upwards (Oxford Business Group, 2012). So, KSA's real estate market is driven primarily by an internal demand generated by the rapidly growing local population (Opoku & Abdul-Muhmin, 2010). This will allow it to meet demand from the youth bulge, smaller family sizes, and a shortfall in appropriate properties (Banque Saudi Fransi, 2011).

It is estimated that Saudi's housing market will need an additional 1.65million new units by 2015. In another forecast, up to 30 million square meters of commercial (office, retail and hospitality) space was allocated across the major cities within the Kingdom by 2012. Interestingly, the ownership rate fell from 65% to 55% between 2000 and 2004 (Ministry of Economy and Planning, 2009). Equally, according to the 2004 Census and 2007 Demographic Data Survey, the Saudi home ownership ratio stands at 60% (Oxford Business Group, 2012).

Today, purchasing a small house, which by Saudi standards is about 350 square meters costs about SR1.5million (\$399,900). The cost of purchasing at least 300 square meters of land costs between SR25, 000 and SR50, 000, which is between \$6,665 and \$13,330.

It is also estimated that about 37% buy lands or houses in cash and about 63% purchase on credit. These purchases are made with loans and persons who seek such loans make 10% cash deposits of the total amount in advance to obtain at least credit

of SR1.35 million (\$359,910). For repayments, the individual or combined income must not be less than SR27, 000 (\$7198.20) (Oxford Business Group, 2012). The rule of the Saudi Arabian Monetary Agency (SAMA) is that the maximum credit limit should not exceed one third of net monthly salary. However, for retired persons, the limited set by SAMA is 25% of pension payments. This translates into SR30, 000 (\$8000) per monthly income (Oxford Business Group, 2012).

There are also differences in minimum salaries required to purchase a villa across locations in Saudi Arabia's three main provinces. Purchasing a villa in Riyadh, for instance, requires a minimum salary of SR22, 972 (\$6,124.34), as against SR28, 879 (\$7,699.14) in Jeddah, and SR14, 408 (\$3,841.17) in the Eastern Province (Oxford Business Group, 2012).

Home rental is another interesting phenomenon in Saudi's real estate sector boom. Percentage of total income increased from 26% to 30% (Ministry of Economy and planning for, 2004). The demand for rental and affordable housing in KSA is also increasing dramatically. Affordable housing in the Gulf Region may be worth \$125 million annually, hence its high demand (Kearney, 2010). This demand is also pushed up by the large number of expatriates who make up 31% of the population (Central Department of Statistics & Information, 2010). Rental prices have increased at close to double-digit levels since the middle of 2007. Given the strong demand, the upward pressure on rental prices continues (Oxford Business Group, 2012). For this reason, the real estate market is refocusing heavily on rental and affordable housing (Central Department of Statistics & Information, 2010).

The Oxford Business Group (2012) also found that during the first half of 2010, prices of rental increased all over Saudi Arabia. For example, the price of renting a villa of 300-400 square meters in Jeddah increased by 10.9% and the highest average

rent rose to SR80,000 (\$ 21,328). Riyadh rental prices increased by 7.7% and averaged at SR61, 083 (\$16,284). Rental prices in Jeddah soared above all prices of rental in Saudi Arabia to reach SR110, 000 (\$29,326) by the end of 2010.

The lifestyle of Saudi Arabians has changed over the years – people can now purchase apartments at first home purchase; and this has resulted in more demand for apartment housing (Oxford Business Group, 2012). In order to meet the demands of Saudi Arabian residents, developers formulated a marketing strategy to promote real estate units to residents. It is expected that low and middle income segments volume and demand, as well as end-users that have an income above SR25, 000 (\$6,665) per month, will drive the market (Oxford Business Group, 2012). This will mean focusing more on affordable houses for purchase instead of high-end luxury apartments.

Consumer behavior is an important factor to indicate the process in purchasing housing according to Susilawati and Anunu (2001). Findings from studies on family involvement in purchasing real estate suggest that real estate agents must be aware of the dynamics and process of housing purchase behavior. By understanding the role and influence of different family members, real estate agents are able to provide the most effective advice and information at the different stages of purchasing a house (Levy & Lee, 2004).

There is also a strong interest from developers to deliver additional residences to meet growing requirements of cities. Some Saudi Arabians purchase houses and lease to others as investment. In recent times, rental levels have increased, with a 14% average growth in rents over the years to date. There is also strong continued interest in the luxury segment of Jeddah's residential market, particularly along the city's Corniche. This trend is further illustrated by the announcement of the Al Jawarah and Kingdom Tower projects to be completed between by 2013 and 2016 respectively.

These two projects were designed to provide the first-ever branded residences for sale in Jeddah. The strength of the Jeddah residential market is confirmed by the fact that most of the 16,000 units coming into the market from the remainders of 2011 have already been sold (Oxford Business Group, 2012).

The points mentioned above are related to purchasing behavior. Empirical studies have found that house purchase behavior is determined by two factors. Firstly, the house is the most important durable good for the household (Hempel & Punj, 1999). Secondly, many studies of consumer behavior for durable goods indicate that there are similarities among the purchasing processes related to different durable goods (Punj, 1987). Property market analysis has increasingly recognized the significance of the behavior of market participants; academics, professionals, and the property industry as a whole, in accepting behavioral real estate research as a valid and relevant aspect of property market analysis (Gallimore, 1999).

The preceding discourse has focused on the importance of understanding factors influencing the behavior of consumers to purchase real estate in the Saudi market. This is imperative if decision makers and policy makers are to make appropriate policies to manage the housing demand, and for real estate developers to satisfy the needs and wants of their customers (Gibler & Nelson, 2003; Opoku & Abdul-Muhmin, 2010).

In order to gain in real estate market competition, factors which affect behavior when purchasing real estate needs to be determined and understood. Therefore, the purpose of this research is to study the consumer's intention to purchase real estate in Jeddah. This is to understand the relationship between attitude, subjective norm and perceived behavioral control toward intention to purchase real estate and the

moderating effects of factors such as public service, location and demographics of the population towards intention to purchase real estate.

### **1.1 Problem Statement**

The factors affecting real estate markets worldwide are of great importance. These factors are always of concern to governments as well as policy and decision makers. In the KSA, prices of housing have been rising for almost a decade. From 2011 to 2013, prices of houses increased by 13.7% annually while average land prices increased by 16.5% yearly. Land prices have also risen from between 20% – 40%. In a city like Jeddah, the average selling price of a single-family villa or duplex soared by 15% to SR3, 980 (US\$1,061) per square meter by the end of the fourth quarter of 2011. The average selling price of multi-family apartments rose by 14% to SR2, 450 (US\$653) per square meter. The residential sector therefore continues to be the strongest market performer in Jeddah, which has a diverse demography and is the economic city of the KSA (Oxford Business Group, 2012).

Data from the Ministry of Economy and Planning for 2012-2014 indicates that current housing stock stands at 876,000 units with another 132,000 additional units expected to be added from now through to the end of 2015. However, most of the supply completed over the last quarter has already been sold, leaving very little in the market for sale. However, most Saudi Arabians need to gain ownership of residences as private properties. The Ministry of Economy and Planning has said that the ownership rate fell between 65% and 55%. Incidentally nowadays, the Saudi government widely opens ownership of the property markets to non-Saudis. This may have resulted into the significant demand and purchasing power among expatriates. The basic requirement is that non-Saudis need to obtain a license from the Ministry of Interior. This law also allows real estate ownership by foreign investors for business

activities, and for the accommodation of their employees, with permission. Usually, the ownership permission is given after following housing procedures as shown in table 1.1. The procedures involve writing a letter which will be addressed to the Governor of any city in the kingdom, for instance, in Jeddah the letter is usually written to His Royal Highness the Governor of Jeddah. A copy of the applicant's identity will be attached. The applicant must possess a residential identity certificate of the city he wants own a house. In other words, the applicant must have the source of his identity of the same city that he applied for ownership. In addition, Site sketch of the housing unit must be attached together with a letter from the Social Security for the last three years, showing the amount of salary.

Then department of Police should also be contacted to get Certificate of police record which will be sent to the ministry of interior to get the permission that will allow one to go to court to register the housing for a foreigner (Ministry of interior, 2013).

**Table 1.1: Procedures of housing ownership for foreigners**

No.	Procedure
1	Writing a letter which will be addressed to the Governor of any city in the kingdom.
2	Possession of a residential identity certificate.
3	Printing a Site sketch of the housing unit.
4	Issuing a letter by Social Security for the last three years.
5	Issuing Certificate of police record.
6	Sending all the documents to the ministry of interior asking for permission.

To prevent speculation, a five-year moratorium is required for such properties to be sold by owners. However, real property ownership by foreigners is forbidden in the holy cities of Makkah and Medina. Non-Saudi Muslims can only obtain leases of up to two years in these cities. These leases are renewable for the same period (Ministry

of Interior, 2012). This study is therefore, timely as it comes in the midst of the current real estate sector economic boom and housing demand in Saudi Arabia.

Jeddah with population of more than three million people creat high demand on housing resulting in increasing of housing prices eventhough when supply equal to demand prices still going higher and demand keeping high. It is imperative to note that in the KSA, one of the many reasons for purchasing property is for residential purposes. Therefore, what are the factors that determine demand among purchasers? This question can be answered by focusing on developing insights behavior. These insights can be used to develop valid and reliable predictions of what decisions consumers of real estate would take in terms of housing demand (DeLisle, 2012).

In addition, the review of real estate behavior literature on factors affecting purchasing behavior is seriously lacking. Prevoius studies (DeLise, 2012; Gilber & Nelson, 1998) indicated that the review of real estate literature showed real estate studies from behavioral perspective are still new and demanding and still unclear among researchers. Similarly, the impact of behavior on real estate purchase is not yet obvious (Gibler & Nelson, 1998). Additionally, it has been advocated by Nelson & Gilber (1998) for the application of the TPB model to explore the intention to purchase real estate. Furthermore, not many studies have been conducted using the TPB model to measure the intention toward purchasing real estate. This study will therefore test the intention to purchase real estate in Jeddah using the TPB.

Additionally, studies rarely investigate the effect of public service, location, and purchaser's demography on real estate purchasing behavior. Since there is a shortage of existing studies, this study investigates the impact of behavior on purchasing real estate in Jeddah, in the Kingdom of Saudi Arabia. Studies from other countries also show that there is a dearth of literature on effects of behavior on real estate purchasing (Gilber and Nelson, 1998). The same problem was applicable in the

real estate sector in Jeddah, in the Kingdom of Saudi Arabia. However, Gilber and Nelson, (1998) further recommended for the use of Theory of Planned Behavior to study real estate purchaser's behavior. Moreover, Aaker and Maheswaran (1997) and Nikbin (2013) assert that most researches on the Theory of Planned Behavior have been repeatedly conducted within European and American contexts. Likewise, most researches on consumer behavior rely on theoretical frameworks developed in Western societies. Few studies have examined TPB in less developed countries. This study will therefore increase the corpus of knowledge about the Theory of Planned Behavior in relation to real estate purchaser's behavior. Overall, research on the purchase of real estate using the TPB model is scanty.

Therefore, understanding factors that affect this market are important. Utility theories have been used to study consumer behavior but these theories failed to provide convincing explanations to understand the market (Smith et al., 1992; Gilber & Nelson, 1998). Few studies on commitment have been conducted globally and there are increasing assumptions toward studying the market from behavioral perspective (DeLisle, 2012, Graaskamp, 1991; Megbolugbe et al., 1991; Ratcliff 1965, 1972). Behavioral perspective give insights on consumer purchase behavior and explain what drives consumers to purchase housing (Gilber & Nelson, 1998; Kokli & Vida, 2009).

One of the most widely accepted frameworks for studying the relationship between attitude, subjective norms and perceived behavior control and consumer behavior is the Theory of Planned Behavior (TPB), also known as the Theory of Reasoned Action (Gilber & Nelson, 1998). This theory is globally accepted for studying consumer behavior. One of the major strengths of the TPB is its applicability to variety of behaviors in different contexts (Knab, 2009).

However, few studies have used TPB to study consumer behavior in housing. Secondly, TPB has been widely used in researchers situated within western contexts to show its ability to predict behavior (Bray, 2008; Solomon et al., 2006). Besides, very few empirical studies have been conducted, thus far, to investigate the theory's ability to predict purchase behavior in the Gulf Region. Thus, investigating the impact of attitude, subjective norms, perceived behavior control, public service, location and purchaser's demography on purchasing behavior in Saudi Arabia's housing sector, will greatly impact on the industry and government policy drive by providing contextual empirical evidence to predict consumer behavior. This study will seek theoretical and empirical evidence on the relationships between three independent variables (attitude, subjective norms, perceived behavior control), and three moderators (public service, location, and purchaser's demography) and the dependent variable (intention to purchase real estate).

Saudi Arabian consumers are affected by their attitude towards a certain behavior and their purchase intention is affected by their attitude towards the behavior. They are also affected by their families towards behavior (Al-Jeraisy, 2008). Few studies have been conducted in the third world to test TPB's ability to predict consumer behavior. Similarly, Ajzen (1991) who proposed the theory suggested the need to add more variables to increase the ability of the theory to predict behavior. Therefore, location, public service and purchaser's demographics, which had not been used before to study consumer housing behaviour in Saudi Arabia, were introduced and investigated in this study.

One of the motivating factors for purchasing a house is the availability of public services around the premises (Kartajaya, 1994). The availability of public service is one of the most important factors in searching for a house (Rossini, 1998).

Public service is one of the key influencing factors in purchasing a house in Jordan (Al-Momani, 2000). Public service is also an important factor among house purchases in Jeddah (Susilawati & Anunu, 2001). Chinese consumers also consider public services as one of the most important factor in choosing housing (Wang & Li, 2004). Where public services are up and running, it satisfies the demand (DeLisle, 2012). Thus, it is important to examine this variable among housing purchasers' in the Kingdom of Saudi Arabia.

Furthermore, scholars argue that the location of the real estate sector notably influences the choice of criteria in the purchasing process. Kaynak and Stevenson (1982) found that for Canadian consumers, location factor was one of the most important factors in choosing a house. Levine (1998) found that the time spent to reach work is a dominant determinant of residential location. Stevens et al. (1992) also surveyed approximately 3,300 households in Australia and found that locational preferences are considered for housing. Alotabit (2006) also stated that location is an important factor to Jeddah consumers in housing selection. Al-Jeraisy (2008) also concluded that the purchase behavior of Saudi consumers are significantly affected by location. Therefore, DeLisle (2012) concludes that real estate purchasers perceived location as an important factor to consider when purchasing.

The preceding discourse showed that public service and location are important factors that affect consumer behavior when purchasing housing (Koklič & Vida, 2009) across developed countries like France, Japan, Canada, China or Australia (Kaynak & Stevenson, 1982; Konami et al., 2002 ; Wang & Li, 2004, 2006; Violand & Simon, 2007); and less advanced countries like India or Saudi Arabia (Al-Jeraisy, 2009). Therefore, it becomes imperative to study the effect of these variables on housing purchasers in the Kingdom of Saudi Arabia.

Similarly, demographic factors have been found to drive housing preferences (Speare et al., 1975). Demographic characteristics such as gender and marital status (Dawson et al., 1990; Gattiker et al., 2000; Haddad et al., 2011; Yalch & Spangenberg, 1990; Zhang et al., 2007) influence the purchase-intention of a customer. Demographic characteristics are influencers of intention (Tolma et al., 2007). Demographics also influence French real estate purchasers (Violand and Simon, 2007). The role of purchaser's demographics in the prediction of intention has not been extensively examined through the application of the TPB (Tolma et al., 2006). Generally, studies reviewed did not focus on the effect of family on real estate purchasing (Levy & Choi Lee, 2002). In purchasing housing, the role of family, reference group demography, attitude, and intention, play a major role (Kokli & Vida, 2009). Therefore, this study included purchaser's demographics as another moderating variable. The aim of this study is undertake a novel empirical study involving three independent variables (attitude, subjective norms, perceived behavior control) and three moderators (location, public service and purchaser's demographics) to test their influence on the dependent variable (intention to purchase real estate) in the Kingdom of Saudi Arabia.

## **1.2 Research Gap**

This section presents a general overview of the research gaps in the area of the study and thereafter focuses on the real estate sector in the Kingdom of Saudi Arabia.

A high percentage of real estate studies that have dealt with the consequences of consumer decisions concern real estate assets and services. Examples of these are appraisal estimates of the value of property. Market analysis, on the one hand, forecasts consumer demand for real estate and investment analysis. On the other hand, it calculates the expected rate of return and consumer financing and repayment. Consumer behavior studies therefore try to understand the human being and, more

specifically, why they act in the way they conduct themselves in the market. These studies have indicated that each consumer makes different decisions and acts differently, although they fall under the same external influences of culture and society. The explanation given is that each one has his own personality and attitude.

Gibler and Nelson (1998) found that consumers make decisions and act differently even though they fall under the same external influences of culture and society. Rather than ignoring the behavior of the real estate consumer and its complexity, it is a must for real estate researchers to explore consumer behavior to get a better understanding of the reasons behind market choices. The study of consumer behavior in the real estate sector examines why people value the components of real estate, which people value those components, and why preferences change over time. Therefore Ratcliff (1965, 1972) insists that consumer attributes must be considered when determining the market characteristics.

Integrating the economic model of housing with the consumer attitude models is crucial to any explanation of the large margin of unexplained variances in housing consumption behavior (Megbolugbe et al., 1991). Similarly, including the attitude models in studies on real estate is useful to understand some of the perceptions that can affect real estate consumers' behavior (DeLisle, 2012). Furthermore, integrating consumer behavior concepts from sociology and psychology with traditional real estate studies will improve the understanding of individual decision making and behavior in the context of real estate. This understanding of consumer behavior will help to better explain and predict real estate markets to gain greater success in the marketplace (Gibler & Nelson, 1998). Therefore, real estate behavior concepts drawn from psychology and sociology will contribute immensely to consumer behavior understanding and literature.

Earlier studies assumed that real estate consumers always act rationally, but it was found that they actually do not always do what is expected or act rationally. Thus, real estate researchers can use research methods in the Behavioral Sciences to understand the driving forces. This will allow the discovery of new models and their application to real estate consumers (DeLisle, 2012).

Real estate is therefore a rich area for further research. Most real estate studies are however based on neoclassical economics which expected consumers to make rational real estate decisions and behavior. This decisions maximize their utility and wealth subject to the given price and their income constraints. However, tastes and preferences are personal and inherent, but consumers, as human beings, are driven by internal and external forces. This consequently makes real estate markets imperfect or unpredictable.

Researchers generally did not examine the influences that the diversity of real estate consumers has on the demand for real estate. So, the study of real estate will benefit by the inclusion of consumer behavior concepts from sociology, psychology, and marketing perspective. These concepts will improve the ability to predict and explain the behavior in the real estate markets (Gibler & Nelson, 1998). The behavioral approach, again, failed to gain much attention because it was more of an applied approach based on economics and finance. The result of this was an intellectual vacuum in this sphere (DeLisle, 2012).

Furthermore, many behavioral theories developed in psychology and applied to marketing are relevant to real estate (DeLisle, 2012). The study of real estate can therefore benefit by including consumer behavior concepts from sociology psychology and marketing (Gibler & Nelson, 1998). Thus, many Behavioral Sciences theories that have been applied in marketing are relevant to real estate.

Gibler and Nelson (1998) stated that one of the most acceptable models to study the relationship between attitudes and consumer behavior that can be applied to study real estate from behavioral perspective is the Theory of Planned Behavior. The TPB states that behavior is best predicted by intention. It also states that intention is a function of attitude toward a behavior. Subjective norm is considered to be about the social pressure to behave or not to behave while perceived behavior control is seen as the ability and capability to perform a behavior.

In Saudi Arabia's real estate market, few studies have been conducted on the impact of behavior in predicting the purchase of real estate. Real estate as a topic has been previously researched. However, it has not investigated using marketing principles. In fact, there is no documented evidence that the TPB model has been applied to real estate research in Saudi Arabia. It is therefore imperative to gain in-depth understanding of the influences of these variables on the intention to purchase real estate in the Kingdom of Saudi Arabia.

Locally in the Kingdom of Saudi Arabia, researchers in real estate have focused on: urban housing policy evaluation in the Kingdom of Saudi Arabia (Fadaak, 1984); cultural adaptation to housing needs in Riyadh (Mubarak, 1995); developing a comprehensive program to deal with the problem of construction waste in Saudi Arabia (Al-Swat, 2000); problems and remedies of subdivision planning in Riyadh (Alskait, 2003); and performance evaluation of sustainable student housing facilities (Hassanain, 2008). Other studies include: the effects of development practices on the housing sector in Riyadh (Alotaibi, 2009); factors affecting affordable housing cost in Saudi Arabia (Assaf et. al 2010); financing options for house purchases among low-income Saudi citizens (Opoku & Abdul-Muhmin, 2010); and important housing preferences and attributes among low income consumers in Saudi Arabia (Opoku &

Abdul-Muhmin, 2010). There is also a scant literature that analyses the link between the conservation of Islamic culture of Saudi Arabia as ‘the cradle of Islam’ and the design of sustainable housing (Al surf, 2012).

Unfortunately, no research has been conducted in the Kingdom of Saudi Arabia from a marketing perspective. Existing literature shows that there is a dearth of studies and research gap in consumer behavior studies on real estate in KSA. Similarly, no previous research investigated the effects of public service, location, and demographic factors on consumer behavior to purchase real estate in the KSA. This study fill this gap and therefore contributes in theory and knowledge to the understanding of the TPB from the behavioral perspective to the real estate sector in KSA.

There are abundant studies that emphasize the illuminative roles of researches in the real estate sector from Behavioral Sciences perspectives and these have been used to understand and gain deeper insights into consumer behavior in the real estate sector. Graaskamp (1991) suggest that forces driving real estate purchase behavior can be identified by behavioral researches and that behavioral research can help to understand the driving forces of home purchasers. DeLisle (2012) argue that the real estate market must be approached as a behavioral science. DeLisle (1985) thinks that psychological factors that affect perception of the most probable real estate purchaser should be considered.

Furthermore, Nelson and Rabianski (1988) assert that the importance of family housing is a function of psychographic and demographic variables. A study conducted by Shiller (2003) found that housing researchers are not aware of the importance of demographics and psychological motivators in the real estate purchase-behavior. He found that only 13 percent of the respondents were aware of the effects of psychology on real estate consumers. Meanwhile, Kishore (2006) posits that traditional purchasing

theory is based on the premise that purchasers act rationally, correctly, and that they consider all information in the decision making and behavior process

However, according to Salzman and Zwinkels (2013), such ‘decision-makers’ are logical and they perfectly weigh the costs and benefits before acting. This is in agreement with the concept of Utility Theory. The Utility Theory is based on rational decision-making assumptions, which, at the individual, level leads to an ‘efficient market’. This means that real estate purchasers should have all the available information at hand and deal with it in accordance with rationality. But, as we know, the real estate market demand in reality is unpredictable and not perfectly based on current available information, as can be observed that demand changes from one year to the following (Case & Shiller, 1989, 1990). Furthermore, purchasing a house can be considered as a consumption decision (Shiller, 2007). This variation in real estate demand cannot solely be explained from economic perspectives. Therefore, Farlow (2004) concludes that the demand of housing can also be determined by the behavior of consumers.

In a related study, Salzman and Zwinkels (2013) focused on behavioral consumption functions that pay attention to the social and emotional aspects of home ownership. This is important given the relatively large size of real estate market and low frequency of transactions, especially for household purchasers.

The demand on housing includes rational and irrational behavior. This shows that it deviates from optimal purchase behavior (Salzman and Zwinkels, 2013). Therefore, the neoclassical way of viewing consumers in the housing market which consider them rational (only), does not seem to hold (Salzman and Zwinkels, 2013). This is evident in the study by De Bruin and Flint-Hartle (2003), which showed that housing purchasers are not always optimal and do not always possess perfect

knowledge. Contrarily, they exhibited imperfect knowledge and dissatisfying behavior. Meanwhile, as housing purchasers are stimulated by psychological factors (Shiller, 2007), it can also be concluded that consequently, decisions are influenced by both social and internal factors in purchasing (Salzman & Zwinkels, 2013).

Salzman and Zwinkels (2013) are of the opinion that the decision to purchase housing is one of the most important decision people will ever make, and it is inevitable that emotions are involved when humans convert houses into homes. Too often, the social and emotional perspectives of real estate are neglected in research. The behavioral approach to decision-making combines insights from psychology and sociology into the real estate purchase-decision. It seems to be generally accepted that behavioral studies can help to gain insight into housing markets. The importance of behavioral factors in the real estate market is now undeniable and unquestionable. Therefore, researchers need to pursue more studies in this arena.

Some examples of researches conducted in the Kingdom of Saudi Arabia on real estate since 1975 till 2011 include: housing design (Baleela, 1975); pricing (Gandil, 1987); procedurals research (Tuncalp, 1987); regulations management and the relationship between contractors and owners (Al Hammad, 1990); affordability of housing (Nabeel, 2004); and housing finance (Sidaei, 2009).

However, no specific research has been conducted to study behavior of real estate customers. The closest was by Opoku and Abdul\_Muhmin (2010) who studied housing attributes and then highlighted the importance to studying housing from a behavioral perspective. Until now, no research has been conducted in the Kingdom of Saudi Arabia to investigate housing purchase behavior.

Culturally, different researchers across the world have further postulated and argued on the necessity and benefits of undertaking research involving the whole

gamut of external and internal factors, from the Social Sciences, in researches on the real estate market. Sirgy, Grzeskowiak, and Su (2005) suggested that research on housing preference and choice may be enhanced by integrating social and psychological determinants. Gibler and Nelson (1998) contend that the study of real estate will benefit by including consumer behavior concepts from sociology, psychology, and prospective marketing.

Therefore, including models from sociology and psychology on behavior in real estate can drastically improve the ability to predict and explain the behavior of decision-makers in the real estate market. The more the knowledge of real estate consumer behavior, the higher the likelihood of predicting decision-making in the real estate market. Furthermore, the incorporation of the Social Sciences and urban economics with real estate can be helpful in finding answers and solutions to a multitude of urban problems (Graaskamp, 1991). Behavioral research can also help to understand the driving forces behind home purchasers' decisions (Graaskamp, 1991). There is therefore an obvious need to shift real estate research from rational factors to psychological and social decision factors (Bargh, 2002).

In relation to the Saudi market, Al-Otaibi (2006) also stressed that housing purchasers' characteristics must be taken into account in any analysis of the housing market in Jeddah. Opoku and Abdul-Muhmin (2010) add that there is still a great need to investigate factors affecting the behavior of the Saudi housing purchaser

### **1.3 Objectives of the Study**

The aim of this study is to investigate the relationship between components of Theory of Planned Behavior, namely: attitude, subjective norms and perceived behavior to ascertain the effects of moderating factors such as: public service, location,

and purchaser's demography towards intention to purchase real estate in Jeddah, in the Kingdom of Saudi Arabia. The specific objectives are:

- i. to determine the relationship between attitude and intention in the intention to purchase real estate;
- ii. to determine the relationship between subjective norm and intention in the intention to purchase real estate;
- iii. to determine the relationship between perceived behavior and intention in the intention to purchase real estate;
- iv. to investigate the moderating effects of public services on the relationship between attitude, subjective norm and perceived behavior in the intention to purchase real estate;
- v. to investigate the moderating effects of location on the relationship between attitude, subjective norm, perceived behavior and intention in the intention to purchase real estate; and
- vi. to investigate the moderating effects of purchaser's demography on the relationship between attitude, subjective norm, perceived behavior and intention in the intention to purchase real estate.

#### **1.4 Research Questions**

- i. What is the relationship between attitude and intention in the intention to purchase real estate?
- ii. What is the relationship between subjective norm and intention in the intention to purchase real estate?
- iii. What is the relationship between perceived behavior and intention in the intention to purchase real estate?

- iv. How does public services moderate the relationship between attitude, subjective norm and perceived behavior in the intention to purchase real estate?
- v. How does location moderate the relationship between attitude, subjective norm and perceived behavior in the intention to purchase of real estate? and
- vi. How does purchaser's demography moderate the relationship between attitude, subjective norm and perceived behavior in the intention to purchase real estate?

### **1.5 Significance of the Study**

This study has theoretical and practical significance. Firstly, as previous literature shows, the impact of behavior on real estate purchase is not yet obvious (Gibler & Nelson, 1998). Subsequently, Nelson & Gilber (1998) advocated for the application of the TPB model to explore the intention to purchase real estate. Wells (1993) suggests that investigating life-changing decisions of consumers such as house purchase can essentially contribute to consumer behavior knowledge. This study therefore fills the gap in literature as advocated and suggested by Nelson and Gilber (1998) and Wells (1993) on consumer behavior.

Furthermore, not many studies have been conducted using the TPB model to measure the intention toward purchasing real estate. This study will test the intention to purchase real estate in Jeddah using the TPB. Numraktrakul (2012) reported a positive relationship between attitude, subjective norm and perceived behavior control towards intention to purchase green housing.

Additionally, studies rarely investigate the effect of public service, location, and purchaser's demography on real estate purchasing behavior. Since there is a shortage of existing studies, this study investigates the impact of behavior on purchasing real estate. It is therefore expected that the result of the study will provide empirical evidence on intention to purchase real estate and the variables which affect

the intention behavior. As a result, this study can serve as a future reference on the study of real estate and bridge gap in literature since it includes public service, location and purchaser's demography as moderating variables in the relationship between attitude, subjective norm and perceived behavior control towards intention to purchase real estate. This study is therefore different from previous studies because it emphasises the role of customer behavior on real estate purchasing. Meanwhile, most previous studies focused only on the effects of utility on real estate purchasing.

Secondly, so far, there is a dearth of literature on effects of behavior on real estate purchasing (Gilber and Nelson, 1998). This is especially true in the real estate sector in Jeddah, in the Kingdom of Saudi Arabia. Moreover, Aaker and Maheswaran (1997) and Nikbin (2013) assert that most researches on the Theory of Planned Behavior have been repeatedly conducted within European and American contexts. Likewise, most researches on consumer behavior relies on theoretical frameworks developed in Western societies. Few studies have examined TPB in less developed countries. This study will therefore increase the corpus of knowledge about the Theory of Planned Behavior.

Overall, research on the purchase of real estate using the TPB model is scanty. This study, will thus contribute in a novel way to a yet, virgin academic field as corroborated by Knabe (2009). The study also, intends to fill the gap in knowledge by introducing and adapting the model in a less developed country like Saudi Arabia. The study will therefore add to the collection of literature toward real estate behavior in Saudi Arabia. This can increase interest among researchers to undertake more research on customer behavior in Saudi Arabia in the near future.

Empirically, the study expects to establish which variables among: attitude, subjective norm and perceived behavior control affects purchasing behavior. In

addition, the study hopes to explore how public service location and purchaser's demography affect customer behavior. Secondly, the results of this study can be applicable to other cities in the Kingdom of Saudi Arabia or even other Gulf countries.

The findings can also be applied in developing effective training programs and strong customer relationships within the real estate sector. Service providers can train employees to understand what aspects of customer behavior are more important to the real estate purchaser. If real estate investor can improve these aspects, the customers will have more intention to purchase real estate. It will also help governments to set procedures and regulations for current and future plans. In addition, this study will help real estate instructors to understand what influence consumers toward real estate and consider it at their marketing planning.

## **1.6 Scope of the Study**

This study is limited in scope to the real estate sector in Jeddah. The research focuses on the relationship between attitude, subjective norm and perceived behavior control towards intention to purchase real estate in Jeddah. The study also investigates the moderating effects of public service, location and purchaser's demography on the relationship between attitude, subjective norm and perceived behavior control towards intention to purchase real estate.

## **1.7 Definition of Key Variables**

### **1.7.1 Attitude**

The definition by Ajzen is hereby applied, namely that: "attitude toward a behavior is the degree to which the performance of the behavior is positively or negatively valued" (Ajzen, 1991). This definition of attitude is restricted to intention to purchase real estate in Jeddah, Saudi Arabia.