



AENSI Journals

Journal of Applied Science and Agriculture

ISSN 1816-9112

Journal home page: www.aensiweb.com/JASA



Factors Influencing the Intention to Purchase Real Estate in Saudi Arabia

¹Tawfik AL-Nahdi and ²Abu Hassan Abu Bakar

¹PhD candidate, School of Housing Building and Planning, Universiti Sains Malaysia.

²Professor, School of Housing Building and Planning, Universiti Sains Malaysia.

ARTICLE INFO

Article history:

Received 1 September 2014

Received in revised form 25 October 2014

Accepted 31 October 2014

Available online 5 November 2014

Keywords:

Intention, Purchase, Real Estate
Saudi Arabia

ABSTRACT

Factors affecting the real estate market are of great importance worldwide. This study will investigate the factors influencing Saudis to purchase real estate. The study examines the effect of attitude, subjective norm and perceived behavior control on the intention to purchase real estate. Taking into account that location as a moderator, a total of 450 questionnaires were distributed to respondents in Jeddah. Based on 322 questionnaires collected, the results show that there is a positive significant relationship between Attitude, and Subjective Norm toward the intention to purchase real estate, while the Perceived Behavior Control has not. Location was found to have a negative moderating effect on the relationship between attitude and the customers' intention to purchase real estate among Saudis.

© 2014 AENSI Publisher All rights reserved.

To Cite This Article: Tawfik AL-Nahdi, Abu Hassan Abu Bakar., Factors Influencing Purchase Intention of Real Estate in Saudi Arabia. *J. Appl. Sci. & Agric.*, 9(17): 27-39, 2014

INTRODUCTION

The focus is on Saudi Arabia real estate market for a number of reasons. Firstly, Saudi Arabia is a pivotal country with the largest real estate market in the oil-rich Gulf. In addition, secondly, around 45% of the population is below age 20 years. This and the rapid urbanization rate combined to increase the growth which already happening at real estate market (Opoku & Abdul-Muhmin, 2010). In Saudi Arabia, discovery of oil in commercial quantities in the late 1930s besides the increasing of oil prices during the 1970s, shifted traditional Saudi society to lifestyles of developed societies (Mubarak, 1995). Prior to 1970, the largest segment of the population was rural. Since 1970, the population of Saudi Arabia has boomed dramatically and experienced a new trend, that is, the shift of the population from rural to urban areas (Al-Hathloul 1995). Especially the major urban centers witnessed unmatched growth (Mubarak, 1995). Between 1950 and 1992, the level of urbanization in Saudi Arabia increased parallel with tremendous growth for the population for the same period. For example, the rate of population that live in urban areas increased from 10% to 77% (Al-Hathloul 1995, Mubarak, 1995). Economic improvement for government and citizens resulted in jump in urban development characterizing Jeddah and many other major Saudi cities (Mubarak, 1995). Alotaibi (2006), Jeddah represents one of the largest urban areas in Saudi Arabia. Jeddah's urban population has grown rapidly from 1970 to 2002 to an estimated population of 2,560,000 with annual growth rates of 12.43% in 1970 and a rate of 11.05% in 2000. According to Alotaibi (2006), from 1977 to 2002, the rate of ownership has dramatically increased from 19% to 35%. And for the same period, there is a decrease in the rate of renters, from, 77% to 58%, between 1977 and 2002. As a consequence of Jeddah being the main economic city, it has provided more jobs and high income result with improved opportunities for a better quality of life. All reports on the Saudi real estate market reported there was a high demand on real estate units mainly in the residential sector that will require huge number of units, with almost 1 million units by 2012 (Opoku & Abdul-Muhmin, 2010).

Understanding the factors influencing consumers behavior to purchase real estate in Saudi market is important. This will provide crucial insight for decision makers and policy developers in managing the housing demand. According to earlier studies (Gibler & Nelson, 2003, Opoku & Abdul-Muhmin, 2010) this kind of studies may provide results that will also be of importance for real estate developers to satisfy the needs and wants of their customers (Gibler & Nelson, 2003, Opoku & Abdul-Muhmin, 2010)

Corresponding Author: Tawfik AL-Nahdi, PhD candidate, School of Housing Building and Planning, Universiti Sains Malaysia.
E-mail: dr.towfik@gmail.com

Literature Review:

Formal involvement in housing in Saudi Arabia started in 1951. The Saudi government used funding to provide housing for its citizens. The government fund called the Real Estate Development Fund (REDF) offers cash loans of up to SR500,000 (US 133,000), repaid in installments for 25 years to citizens and with zero interest, to construct or buy their own houses. The only two requirements for REDF is that a Saudi citizen must be at least 21 years old and he/she did not receive a previous REDF loan without any restrictions to area. REDF has no conditions for location. According to Mubarak, 1995; Susilawati & Anunu, 2001; Alotaibi, 2006, and the Centre for Housing Research, (2008), housing development in Jeddah has changed over the last 50 years. A household's dream for property is highly related to housing choices which take into account changes in social and economic factors that affect Jeddah's housing, must be taken into account in any analysis of the housing market in Jeddah. The housing sector needs to identify these key trends and assess their implications for the housing market. A housing neighborhood and its location in relation to services are important in housing markets. Weak regulations in some areas brought problems in some areas like streets capacity, infrastructure, utilization of common facilities and social services which resulted in discomfort to many residents of several units. Demand for housing increased from the seventies of the past century until now. Developers need to know some factors which influenced the decision making process of buying a house. In order to develop the most suitable marketing plan. According to Al Hathloul and Edadan, (1995) "the economic contribution of the real estate construction sector during the last twenty years has been very significant. The value-added share of the construction sector had increased from 3.2% to 13.4%, registering an annual compound growth rate of 11.2%. During five years, the real estate sector's contribution to the GDP increased from 2.9% to 3.7%. From 2003 until now, most developed countries are having boom in the housing demand despite there being an increase in residential houses investment.

In order to win the market competition, some factors which influence the decision making process of buying real estate need to be determined. Therefore, the purpose of this research is to study Saudi consumer intention to buy real estate. The attitude, subjective norm and perceived behavioral control of the Saudi consumer, and the location of housing toward the intention to buy real estate, will be studied in a sample of consumers.

Theory of reasoned action (TRA):

TRA is a general theory to explain general human behaviour. Fishbein and Ajzen's (1975) have developed theoretical grounds of theory of reasoned action (TRA) which states that beliefs influence attitudes, which lead to intentions, and finally to behaviours. TRA was derived from previous research that started out as the theory of attitude. It has, however, led to the study of attitude and behavior. The components of TRA consists three general constructs: behavioral intention, attitude, and subjective norm. TRA suggests that a person's behavioral intention depends on the person's attitude towards the behavior and subjective norm (Ramayah & Suki, 2006).

Theory of planned behaviour (TPB):

Theory of Planned Behavior (TPB) as proposed by Ajzen (1991) is an extension of the Theory of Reasoned Action (Ajzen & Fishbein, 1980) to predict behavior in real-world mode. During the past decades TPB has been used by many researchers, and it showed it was able to predict intentions. A person's behavior intention is influenced by an attitude toward the behavior, subjective norms and perceived behavior control (Ajzen, 1991). According to Ajzen (1991), the Theory of Planned Behavior (TPB) is used to understand the relationship of intentions to performing a behavior. These intentions are influenced by attitudes towards the behavior, the social pressure to perform this behavior, which is known as subjective norms, and control over the behavior, which is referred to as behavioural control (Ajzen, 1991).

TPB was accepted as a theory to explain and forecast human behavior (Numraktrakul, *et al.*, 2012). TPB has been used to investigate the factors influencing consumers to buy their residential units (Phungwong, 2010; Si, 2012). The Theory of planned behavior is a suitable model to study the factors influencing home purchase intentions (Phungwong, 2010; Numraktrakul, *et al.*, 2012)

Attitude:

Attitude is the person's favor or disfavor toward an action (Tonglet *et al.*, 2004, Al-NAhdi *et al.*, 2008; Al-NAhdi *et al.*, 2009). Attitude is defined as a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor (Ajzen & Fishbein, 1980). Attitude is also defined as the way individuals respond to and are disposed towards, an object (Yusliza and Ramayah, 2011). Previous studies (Davis *et al.*, 1989; Cronin & Taylor, 1992; French *et al.*, 2005; Gopi & Ramayah, 2007; Han and Kim, 2010; Ing-Long & Jian-Liang, 2005; Jackson *et al.*, 2003; Kim and Han, 2010; and Ramayah *et al.*, 2008) found that there is a strong and steady relationship between attitude and repurchase intention. Customers have the intention to compare the perceived service with the expected service. If customers felt that the service is below their expectation, they would be dissatisfied. However, if customers' feelings were equal to

or exceeds their own expectations, they will be satisfied. Accordingly, they intended to buy from the provider (Kotler & Keller, 2006). The role of feelings of the buyer influence purchasing process of a custom-made prefabricated house (Koklič & Vida, 2009). A person who has beliefs that result from engaging in a positive behavior will have a positive attitude toward performing the behavior, while a person who has beliefs that result from engaging in a negative behavior will have a negative attitude toward performing the behavior (Ajzen, 1991). Attitudes is one of the determinants that affect individual behavior (Gibler and Nelson, 1998). Attitude influences consumer intention to buy durables (Chung and Pysachik, 2000; Summers *et al.*, 2001) Attitude influences consumer intention to purchase a house (Phungwong ,2010 ;Numraktrakul et, al.,2012).

Subjective Norm:

Subjective Norm results from how the person perceives the pressures placed on him/her to perform or not to perform the behavior (Ajzen, 1991; Tonglet *et al.*, 2004; Han and Kim, 2010; Kim and Han, 2010). Consumers' perception of social pressures put on him by others to purchase a product (Phungwong, 2010). Friends, parents, political parties, and/or agent might be involved in the purchasing decision (Kalafatis *et al.*, 1999). The attitude of others influences the purchase intention and purchase decision. Attitude of others means to which limit the attitude of others affect the customer's purchase decision and of choosing a particular product among different products. When others are close to a customer and have high negativism toward the product, customers will be more likely to adjust his purchase intention. And a customer's purchase intention will increase if others have others preferences to the same product (Ajzen & Fishbein 1980; Kotler & Keller, 2006; Rivis and Sheeran, 2003).

Previous studies showed different results regarding the subjective norm as a predictor of intention. There are some studies that showed a significant relationship between subjective norm and intention (Taylor & Todd, 1995; Venkatesh & Davis, 2000; Ramayah *et al.*, 2003, 2004; Chan & Lu, 2004; Baker *et al.*, 2007; Teo & Lee, 2010). Other some studies, again, showed there is no significant relationship between subjective norm and intention (Davis *et al.*, 1989; Mathieson, 1991; Chau & Hu, 2001; Lewis et, al., 2003). Latest studies found that subjective was a predictor of intention at different areas (Alam & Sayuti, 2011; Gupta and Ogden, 2009; Han and kim, 2010 ;Iakovleva *et al.*, 2011; kim and Han, 2010; Wu *et al.*, 2011). Koklič & Vida, (2009) External factors of the buyer also influence the purchasing process of a custom-made prefabricated house. External factors like reference groups and family buyer influence purchasing process of a custom-made prefabricated house (Koklič & Vida, 2009). Susilawati *et al.*, (2001) found friends' colleagues and wives have influenced the decision making of buying a house by 45%. Social and cultural factors play a significant role in the relative importance of housing preferences which are determined by religion, kinship, and social relations (Jabareen, 2005). Consumers are sometimes influenced by friends' information involved with the actual home decision (Kichen and Roche, 1990). Social factors play significant roles in choosing a house to purchase (Al-Momani, 2000). Subjective norms influence a consumer intention to purchase a house (Phungwong ,2010 ; Numraktrakul et, al.,2012)

Perceived Behavioral Control:

Perceived behavior control is defined as the extent to which the person has control over internal and external factors that facilitate or constrain the behavior performance. Control beliefs are a person's beliefs toward factors available which facilitate or prevent performing a behavior (Ajzen, 2001; Han and Kim., 2010; Kim and Han, 2010; Tonglet *et al.*, 2004;).

Latest studies found that perceived behavioral control was a predictor of intention (Iakovleva *et al.*, 2011), (Wu *et al.*, 2011) (Alam & Sayuti, 2011). Various research in various areas, showed that there is a positive relationship between perceived behavioral control and intention (Blanchard *et al.*, 2008; Fang, 2006; Gopi & Ramayah, 2007; Ing-Long & Jian-Liang, 2005; Jen-Ruei *et al.*, 2006; Mathieson, 1991; Ramayah *et al.*, 2008; Shih & Fang, 2004; Taylor & Todd, 1995; Teo & Pok, 2003; Wise *et al.*, 2006; Baker *et al.*, 2007; Teo & Lee, 2010). In the real estate area researchers found perceived behavioral control predictors to purchase housing (Phungwong ,2010 Numraktrakul et, al.,2012)

Intention:

Intention is an indication of a person's willingness to perform the behavior, and it is an immediate antecedent of behavior. Intention is the dependent variable which is predicted by an independent variable namely attitude, Subjective Norm and Perceived Behavioral Control. Intention varies from time to time and as the time interval increases, the lower is the correlation between intention and action (Ajzen, 1991; Ajzen & Fishbein, 1980;; Han and Kim., 2010; Kim and Han, 2010). Davis *et al.*, (1989) and Taylor & Todd (1995) found in their studies that intention is strong predictor of behavior. Therefore, the intention to purchase is an antecedent of a purchase decision (Phungwong 2010).

Location:

Location is one of the affecting factors in an individual's decision making to purchase housing (Kaynak & Stevenson, 1982). Kaynak and Stevenson (1982) found that for Canadian consumers, the location factor is one of the factors of choosing a house. One of a house buyers' motivations to choose a house is availability of an access road to the building area (Kartajaya, 1994). Kartajaya (1994) found that the location of an access road will attract consumers to buy housing. Being close to work place and facilities is a considered factor when searching for a house (Rossini, 1998). Levine (1998) found that the time spent to reach work is a dominant determinant of residential location. In the China, buyers prefer to avoid being close to some facilities while preferring to be nearer to schools or mall parks (Wang and Li, 2004). Rinner and Heppleston (2006) defended location as the proximity to desirable or undesirable facilities. has effect on consumer decision of residential buyers. Alotabit, (2006) location is one of the factors Jeddah consumers are considering in housing selection. The location of a residential unit has an influence on housing choice (Zabel & Kiel, 2000, Yusuf & Resosudarmo, 2009). Choosing a house in Saudi Arabia can also, be affected by its proximity to schools (Opoku & Abdul-Muhmin, 2010)

Form the previous literature studies, we can see that choosing residential location is based on several factors like proximity to schools (Wachs *et al.*, 1993), proximity to relatives (Opoku & Abdul-Muhmin, 2010), proximity to community facilities (Al-Momani, 2000), and traveling time (Levine 1998). Fauth (2004), location is a moderator on the relationship. Also study conducted by Lee *et al.* (2008), location moderates the relationship when purchasing housing. In a study by Opoku & Abdul-Muhmin (2010), it was found that location is a factor influencing Saudi consumers when choosing a house.

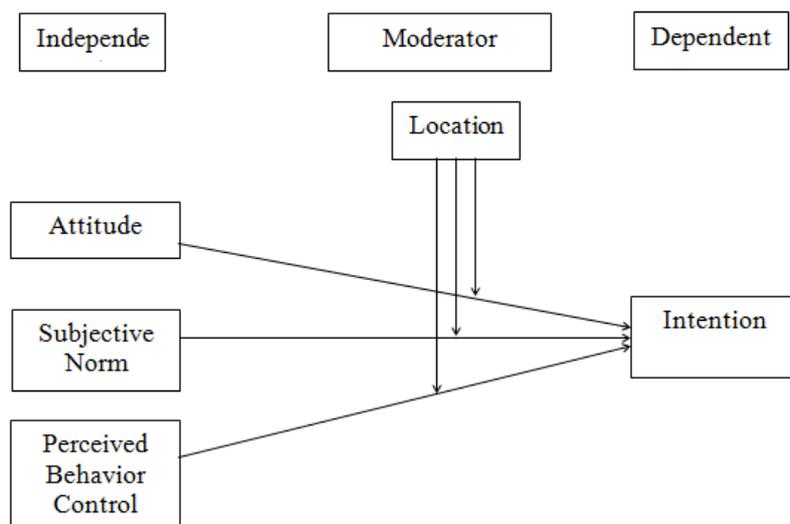
Theoretical framework:

Fig. 1: Effects of Location on the relationship between independent and dependent variable.

Research methodology:

This study collected data through a survey distributed in Jeddah using a self-administrated questionnaire. The questions were adapted from various researches namely Bredahl *et al* (1999) and Cook *et al.* (2000), Ajzen and Fishbein's (1980), Al-Nahdi (2009); Davis *et al.*(1989); Gopi & Ramayah, (2007); Jahya (2004); Mills (2006); Moor & Benbasat (1991); Norzalila (2004); Numraktrakul *et al.*, (2012); Ramayah *et al.*, (2008); Rinner & Heppleston, (2006), Al-Nahdi (2011) and Numraktrakul *et al.* (2012). The questionnaire consists of two main sections. The first section asks about the respondent's characteristics. The second asking about attitude, subjective norms, perceived behavior control and location. To assess attitude, subjective norms, perceived behavior control, the five-point Likert Scale was used (ranging from 1, Strongly disagree to 5, Strongly Agree, for location the scale ranged from (1,Least important to 5, Very important).

Population and data collection:

Population for this study people living in Jeddah and who are above 18 years old. The sample was selected randomly. Where, Data collected by a questionnaire adapted from various researches. The questionnaire was distributed directly to respondents.

Goodness of Measures:

Factor analysis and reliability were used to test the goodness of measures. Factor analysis is a test of how well an instrument measures the concept whereas reliability is a test of how consistently a measuring instrument measures the concept (Sekaran and Bougie, 2010).

Data collection:

The questionnaire was distributed directly to respondents.

Data analysis method:

In this study, the statistical tool SPSS version 21.0 (Statistical Package for Social Science) was applied to analyze the data profile and also the hypotheses testing. The following analysis was used: Descriptive Analysis was used to analyze the demographic information of respondents. As well as Goodness of Measure Analysis factor analysis and reliability analysis were conducted (Hair *et al.* 1998; Sekaran, 2003). This was to ensure that the data used to test the hypotheses are both valid and reliable. Factor Analysis was conducted based on Hair *et al.*, (1998). The Varimax rotation method was also used. Kaiser- Meyer- Olkin (KMO) measure of sampling adequacy, Bartlett's test of sphericity, and anti-image correlation were used as well to verify the assumptions undertaken by the factor analysis. Cronbach alpha was used to analyze the reliability of the instruments. Regression Analysis was used for hypothesis testing, it was used to investigate the relationship between the independent and dependent variables, and also the effect of moderating variables towards this relationship.

Response Rate:

A total of 450 sets of questionnaires were distributed to respondents in Jeddah. Out of the total of questionnaires distributed, 380 sets of questionnaires were returned which represent 84%. Only 322 sets of the questionnaires were usable which represents a rate of 71.5%. Table 1 shows the responses to the distributed questionnaires.

Table 1: Distributions of Questionnaires

Items	NO.
Questionnaires distributed	450
Total response	380
Unusable response	58
Usable response	322
Total response rate	84 %
usable response rate	71.5%

*Results:**Profile of Respondents:*

The profile of respondent shows and as depicted in table 2 below, that respondents were aged between 18 to 25 representing 29.2 percent, and between 26-33 representing 24.8 percent, age between 34-40 percent represents 24.8 percent. Respondents aged above 40 percent represent 24 percent of the total respondents. Respondents between 34-40 percent is aged between 26-33 years. 79.2 Percent of respondents are males, where as, 20.8 percent are females, around 64.6 percent of the respondents are married, and 35.4 percent are single. 17.4 Percent have only two family members, 34.5 percent have between 3-4 family members, 31.7 percent have 5-6 family members, and more than 6 family members represents 16.5 percent of respondents. 66.8 Percent of the respondents are Saudis, and 33.2 are Non-Saudis. Respondents educated to primary level represent 2.5 percent, where as 23.3 percent are secondary level, 4.3 percent are diploma level, 55.6 percent are Bachelor degree holders, where as, 14 percent are post graduates, Professional qualification holders represent only 0.3 percent of the respondents. Of the study, 9 percent of the respondents are unemployed or retired, 23 percent own a business, 28 percent work in government, 32 percent work in the private sector, and others 8.1 percent work in different jobs. Respondents with income below SR 10,000 represent 47,5 percent of the study; 34,2 percent of the respondents income is between 10,001 to 20,000, 14 of the respondents income between 20,000 to 50,000, and 4.3 percent of the respondents income is above SR50,001

Table 2: Profile of Respondents

Respondent's profile	Category	Frequency	Percentage
Age (years)	18-25	94	29.2
	26-33	80	24.8
	34-40	71	22
	above40	77	24
Gender	Male	255	79.2
	Female	67	20.8

Marital status	Single	114	35.4
	Married	208	64.6
Number of family members	2	56	17.4
	3-4	111	34.5
	5-6	102	31.7
	More than 6	53	16.5
Citizenship	Saudi	215	66.8
	Non-Saudi	107	33.2
Education	Primary level	8	2.5
	Secondary level	75	23.3
	Diploma	14	4.3
	Bachelor	179	55.6
	Post graduate	45	14
	Professional qualifications	1	.3
Occupation	Unemployed, Retired	29	9
	Self-employed (own business)	74	23
	Government employee	90	28
	Private sector	103	32
	others	26	8.1
Monthly income	Below SR 10,000	153	47.5
	SR 10,001 to 20,000	110	34.2
	SR 20,000 to 50,000	45	14
	above SR 50001	14	4.3

Factor Analysis:

Factor analysis was used to ensure that the number of items can be reduced to the number of concepts that were initially hypothesized (Hair *et al.* 1998). Minimum acceptable value for KMO is 0.50 with Bartlett's test of sphericity to be significant. Eigenvalue value should be 1 or greater. The cut off point for significant factor loading should be at least 0.50 on one factor.

Factor analysis was done on items of independent variables (Attitude, Subjective Norms and Perceived Behavioral Control). This examination revealed a combined total variance explanation of 64.33%. The KMO measures of sampling adequacy stand at 0.814. Table 3 summarizes factor loadings and cross factor loadings for independent variables that were extracted from the rotated component matrix. There we have attitude, Subjective norms and Perceived behavior control.

Table 3: Factor Loadings for Independent Variables

	Components		
	1	2	3
Factor 1:Attitude			
Buying housing is a beneficial decision.	.851	.157	-.014
Buying housing is a good idea.	.845	.171	.009
Buying housing is a wise decision.	.856	.171	.002
Buying housing is an admired decision.	.781	.207	-.019
Factor 2:Subjective norms			
My family thinks that I should buy housing.	.144	.817	-.011
My family would want me to buy housing.	.053	.868	.067
My family agrees with me to buy housing.	.246	.829	.026
My family thinks that buying housing is a wise decision.	.309	.713	-.003
Factor 3:Perceived behavior control			
I have enough opportunity (I have easy access to the market) in making a decision to buy housing.	.082	.004	.785
I have enough time to make a decision to buy housing	.207	-.105	.653
I have enough money to buy housing.	-.078	-.002	.804
I have enough skills and knowledge about housing to make my own decision. If I would like to buy housing.	-.075	.089	.623
I have complete control over buying housing.	-.109	.065	.692
Eigenvalue	4.051	2.566	1.746
Variance (%)	31.16	19.73	13.43
Total variance		64.33	
Kaiser-Meyer-Olkin MSA KMO		.814	
Bartlett's test of sphericity		1755.75	

Factor analysis was done on items of six questions which were introduced to measure the moderator variable (Location). As shown at table 3 two questions were eliminated due to loading. According to Hair *et al.* (1998) differences in the factor analysis results may have been cause of three reasons, which are; (1) the passage of time, (2) change in the sample ,and (3) the data gathering process. Therefore, dropped items are acceptable because items were adapted from various literature, which initially developed outside Saudi Arabia. For that, the underlying structure in other countries might be different from Saudi Arabia.

Number of items drooped

Dimensions	Before factor analysis	After factor analysis	Number of dropped items
Location	6	2	2
Total	6	2	2

Table 5: Factor Loading for modrator Location to Buy Real estate

	Component
Factor: Location to buy Real estate	
Proximity to the working place	0.653
Proximity to Schools	0.73
Proximity to Malls	0.77
Proximity to grocery stores	0.71
Eigenvalue	2.065
Variance (%)	51.629
Total variance	51.629
Kaiser-Meyer-Olkin MSA KMO	0.658
Bariett's test of sphericity	225.694

Factor analysis was done on items of the dependent variable (Intention). Five questions were introduced to measure the dependent variable. This examination revealed a combined total variance explanation of 64%. The KMO measures of sampling adequacy stand at .844. Table 6 summarizes the factor loadings and cross factor loading which is shown at rotated component matrix.

Table 6: Factor Loading for dependent Variable Intention to Buy Real estate

	Component
Factor: Intention to buy Real estate	
I will continue to buy housing in the future.	.733
I intend to buy housing frequently in the future.	.836
I plan to buy housing.	.854
I will try to buy housing.	.801
I want to buy housing.	.784
Eigenvalue	3.220
Variance (%)	64.396
Total variance	64.396
Kaiser-Meyer-Olkin MSA KMO	.844
Bariett's test of sphericity	708.985

Reliability Analysis:

Reliability Analysis was conducted to ensure the consistency or stability of the items (Sekeran, 2003). The Cronbachs alpha test was used to analyze the reliability of the instrument. In this section all variables namely attitude, subjective norms and perceived behavior controls will be included in the reliability analysis. Table 7 shows the values of Cronbach's alpha for all the variables.

Table 7: Reliability for independent and dependent variables

Variables	No. of items	No. of items retained	Cronbachs alpha
Attitude	4	4	.879
Subjective norms	4	4	.849
Perceived behavior control	5	5	.756
Location	6	4	.687
Intention	5	5	.859

Results:

Descriptive analysis:

Descriptive analysis for independent variables (Attitude, Subjective Norms, Perceived Behavioral Control and location), dependents (Intention) is presented in table 8.

Table 8: Descriptive Analysis

Variable	Mean	Std. Deviation
Attitude	4.1685	.91060
Subjective norms	3.8230	1.02020
Perceived behavior control	2.8267	.86721
Location	3.7127	.86881
Intention	3.6770	.98223

Test of hypotheses:

Hypothesis 1, 2, 3 and 4 predicted that the independent variables which include attitude, subjective norm, and perceived behavioral control are positively related to the dependent variable which is intention. Location moderated the relationship between independents toward dependents. The Multiple regression analysis technique was used to test this relationship in this model. Two regression analyses were performed to determine the relationship between the independent variables and dependent variable and the effect of the moderator. Testing the interaction can show the moderator effect (Cohen and Cohen, 1983). Moderation is like a variable that strengthens or weakens the relationship between the dependent and independent variables (Baron and Kenny, 1986). Statistically moderation is an interaction between the independent variable and moderator, on the relationship towards dependent variable (Lee et. al., 2008).

Firstly, multiple regression was conducted. It showed the following results R square = 31.8%, this means that about 31.8% of the variation in the dependent variable can be explained by the independent variables jointly. F value =49.37, and $p = 000 < .01$ which is very significant, implying the model is adequate. The Durbin-Watson Test D =1.703. More details can be found in table 9.

Table 9: Multiple regression results between independent variables attitude, subjective norm and perceived behavioral control with dependent variable intention dependent variable.

Variable	Standardized Coefficients Beta
Attitude	0.278***
Subjective norm	0.388***
Perceived behavioral control	0.019
R ²	0.318
Adjusted R ²	0.311
F	49.37
Significant	0.000
Durbin-Watson Test	1.703
*p ≤ .05 **p ≤ .01 ***p ≤ .001	

Secondly, Hierarchical regression was conducted. It shows the following results R square = 34.7% this means that about 34.7% of the variation and. $p = 000 < .01$ which is very significant, implying the model is adequate. More details can be found in table 10.

Table 10: Hierarchical regression results of the effect of Location as a moderator

Selected variable	Model 1 (beta)	Model 2 (beta)	Model3 (beta)
Attitude	0.278***	0.274***	0.804***
Subjective norm	0.388***	0.385***	0.233
Perceived behavioral control	0.019	0.016	-0.301
Location	-	0.063	0.265
Location with Attitude	-	-	-0.832**
Location with subjective norm	-	-	0.236
Location with perceived behavioral control	-	-	0.405
R Square	0.318	0.322	0.347
Adjusted R Square	0.311	0.313	0.333
Sig. F	000	000	000
DurbinWatson index	1.664		

*p ≤ .05 **p ≤ .01 ***p ≤ .001

Test of Hypotheses:

H1 The more positive the attitude is the greater is the consumer intention to buy real estate:

Table 9 shows the results between attitude and intention to buy real estate. Based on the results, attitude was significant ***p<.00 with Standardized Coefficients Beta =0. 278 and have positive effect on Intention. Thus, H1 is supported.

Test of Hypothesis 2:

H2 The more positive the subjective norm is the greater is the consumer intention to buy real estate:

Table 9 shows the results of the degree of the effect of subjective norm toward intention to buy real estate. Based on the results, subjective norm was significant $p < .00$ with Standardized Coefficients Beta = 0.388 and have a positive effect on the intention to buy real estate. Thus, H2 is supported.

Test of Hypothesis 3:

H3 The more positive perceived behavioral control is the greater is the consumer intention to buy real estate:

Table 9 shows the results between perceived behavioral control and intention to buy real estate. Based on the results, perceived behavioral control was not significant $p > .05$ with Standardized Coefficients Beta = 0.019 and have no effect on Intention to buy real estate. Thus, H3 is not supported.

Test of Hypothesis 4:

H4 Location moderates the relationship between the independents and dependents:

The hierarchal regression analysis was performed to determine the moderation effect of location on the relationship between the independent variables and dependent variable. Table 10 shows the results of the Location effect as moderator for the relationship between attitude, subjective norm, and perceived behavioral control toward intention to buy real estate. Based on the results, Location was significant ($p \leq .01$) moderator with attitude Standardized Coefficients Beta = - 0.832 and had negative effects on intention. Location was not a significant moderator on subjective norm and perceived behavioral control towards intention to buy real estate. Thus, H4 is partially accepted.

Study implication:

The theory of Planned Behavior could facilitate the prediction intention to purchase Real Estate. Attitude and subjective norms were significant predictors, where is perceived behavior control was not. Subjective norms had higher weight to explain the intention, where is, attitude was less. This study shows that variables could explain 32.2% percent of the variance in the intention to buy Real Estate, where is, perceived behavior control and location were not significant contributors. Statistically, the model was significant and the result indicated that the Attitude and subjective norms are useful in predicting intention to buy Real Estate.

*The relationship between independent variables towards intention:**Attitude:*

Attitude has a positive influence on consumer intention to buy durables this is constant with these studies (Chung and Pysachik, 2000; Kalafatis *et al.*, 1999; Summers *et al.*, 2001).

Subjective norm:

A critical finding of this study is that the beta weight of the subjective norm is larger than the beta weight of attitude. This illustrate that the subjective norm is a better predictor of intention to buy Real Estate and had a positive influence. These findings are consistent with Vaile *et al.*, (1993), Lechner *et al.*, (1997), Allen *et al.*, (1998), Malhotra *et al.*, (1999), Rutter, 2000, Susilawati *et al.*, 2001, Godin *et al.*, (2001), Venkatesh *et al.*, (2003), Nysveen *et al.*, (2005), Al-Nahdi (2008,2011); Han and Kim (2010), Han *et al.* (2010), ORJI, (2010), Tella, (2011), Numraktrakul (2012) Priyambodo *et al.*, (2012), Jaradat and Al Rababaa, (2013) Lonappan, (2013) and Thakur and Srivastava, (2013). The findings that decisions of consumers are affected by thoughts and actions of surrounding people, the Subjective norm, is higher influencer even more than personal attitude on intention.

Perceived behavior control:

On the other hand, the study of Yusliza and Ramayah., (2011) didn't find perceived behavior control as significant predictor of intention.

Location:

Attitude has negative moderating effects on the relationship between attitude towards consumer intention to purchase.

*Conclusion and recommendation:**Conclusion:*

The study has illustrated the ability of the TPB to explain the intention to purchase real estate, and whether Location could also, moderate the relationship to purchase real estate. It was shown that the intention to buy real estate was influenced by attitude and subjective norm while perceived behavioral control and location were not moderators, with the subjective norm component being more influential.

The study has shown that attitude and subjective norm are accepted for this study.

In conclusion, it is assumed that the outcomes of this study have contributed some valuable information for researchers, customers, marketers and real estate owners. It is expected that the result of the survey will provide information on the intention to buy real estate and which variables affect this intention. This study provided what influence the intention. So, as a result of this study will serve as a future reference on the study of real estate. Admittedly, there are some limitations which must be given attention.

Limitations:

Several limitations have been identified in this study. Time was limited and the sample size is small so the results of this study couldn't provide a general picture to all customers in Saudi Arabia. This research was only conducted in Jeddah. Thus, the result obtained cannot accurately reflect the actual customers' intention to purchase real estate.

Future Research:

Including different variable may explain more behavioral intention as Ajzen suggested (1991). Effect of income and in which point consumer decide and actually buy housing. More research in many different states can be conducted to generalize the findings. In addition, if characteristics of respondents' included in future research it may declare view to some motivators of purchasers.

REFERENCES

- Ajzen, I., 1991. "The theory of planned behaviour", *Organizational Behaviour and Human Decision Processes*, 50: 179-211.
- Ajzen, I., and M. Fishbein, 1980. *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Alam, S.S. and N.M. Sayuti, 2011. Applying the Theory of Planned Behavior (TPB) in halal food purchasing. *International Journal of Commerce and Management*, 21(1): 8-20.
- Al-Hathloul, S. and N. Edadan, Eds. 1995. *Urban Development in Saudi Arabia Challenges and Opportunities*, Dar Al Sahar
- Allen, J.D., E. Sorensen, A.M. Stoddard, G. Golditz and K. Peterson, 1998. Intention to have a mammogram in the future among women who have underused mammography in the past. *Health Education & Behavior*, 25: 474-488.
- Al-Momani, A.H., 2000. Structuring information on residential building: a model of preference. *Engineering, Construction and Architecture Management*, 7(2): 179-190.
- Al-Nahdi, M.T.S.M., I. Ismail, H. Haron and M.A. Islam, 2009. "Intention to patronage halal restaurants among Malaysian Muslims – an issue of halal perception", paper presented at the Global Business Summit Conference.
- Al-Nahdi, T.S.M., and M.A. Islam, 2011. Factors influencing Malaysian Muslims to patronage halal restaurants - Ambience as a mediator. *Business Review*, 6(2): 121-133.
- Al-Otaibi, A., 2006. The Aspiration for Housing in Jeddah-Saudi Arabia. *FOURM*. Vol. 6, Issue 1
- Baker, E.W., S.S. Al-Gahtani and G.S. Hubona, 2007. 'The effects of gender and age on new technology implementation in a developing country: Testing the theory of planned behaviour (TPB)', *Information Technology and People*, 20(4): 352-375.
- Baron, R.M., D.A. Kenny, 1986. The moderator-mediator variable distinction in social psychological research: conceptual, strategic and statistical Considerations. *J. Pers. Soc. Psychol.*, 51(6): 1173-1182.
- Blanchard, C., J. Fisher, P. Sparling and E. Nehl, 2008. 'Understanding physical activity behavior in African American and Caucasian college students: An application of the Theory of Planned Behavior', *Journal of American College Health*, 56(4): 341-347.
- Central department of statistics and information, Saudi Arabia (2008, December 31).
- Chan, S.C. and M.T. Lu, 2004. 'Understanding Internet banking adoption and user behavior: A Hong Kong perspective', *Journal of Global Information Management*, 12(3): 21-43.
- Chau, P.Y.K. and P.J.H. Hu, 2001. 'Information technology acceptance by individual professionals: A model comparison approach', *Decision Science*, 32(4): 699-719.
- Chung, J and Pysarchik, T.D., 2000. "A model of behavioral intention to buy domestic versus imported products in a Confucian culture", *Marketing Intelligence & Planning*, 18(5): 281-291.
- Cohen, J., P. Cohen, 1983. *Applied Multiple Regression/Correlation Analysis for the Behavioral Science*, 2nd edition. Lawrence Erlbaum Associates, Hillsdale, NJ.
- Cronin Jr., J.J., S.A. Taylor, 1992. Measuring service quality: a reexamination and extension. *Journal of Marketing*, 56: 55-68.

- Davis, D.F., P.R. Bagozzi and R.P. Warsaw, 1989. 'User acceptance of computer technology a comparison of two theoretical models', *Management Science*, 35: 982-1003.
- Fang, M.L., 2006. 'Examining ethical intentions of individual employees of Taiwan from Theory of Planned Behavior', *The Business Review*, Cambridge, 6(1): 257-264.
- Fauth, Rebecca C., 2004. "The Impacts of Neighborhood Poverty Deconcentration Efforts on Low-Income Children's and Adolescents' Well-Being." *Children, Youth and Environments.*, 14(1): 1-55.
- French, D.P., S. Sutton, S.J. Hennings, J. Mitchell, N.J. Wareham, S. Griffin, W. Hardeman and A.L. Kinmonth, 2005. The Importance of Affective Beliefs and Attitudes in the
- Gibler, K. M., and S. L. Nelson, 2003. Consumer behavior applications to real estate education. *Journal of Real Estate Practice and Education.*, 6(1): 63-89.
- Godin, G., C. Gagne, J. Maziade, L. Moreault, D. Beaulieu and S. Morel, 2001. Breast cancer: The intention to have a mammography and a clinical breast examination-application of the Theory of Planned Behavior. *Psychology and Health*, 16: 423-441.
- Gopi, M. and T. Ramayah, 2007. 'Applicability of theory of planned behavior in predicting intention to trade online: Some evidence from a developing country', *International Journal of Emerging Markets*, 2(4): 348-360.
- Gupta, S., and D.T. Ogden, 2009. To buy or not buy? A social dilemma perspective on green buying. *Journal of Consumer Marketing*, 26(6): 376-391.
- Hair, J.F., R.E. Anderson, R.L. Tatham and W.C. Black, 1998. *Multivariate data analysis* (5th ed.). New Jersey : Prentice Hall.
- Han, H., and Y. Kim, 2010. An investigation of green hotel customer's decision formation: Developing an extended model of the theory of planned behavior. *International Journal of Hospitality Management*, 29(4): 659-668.
- Han, H., L. Tzang and C. Sheu, 2010. Application of the Theory of Planned Behavior to Green Hotel Choice: Testing the Effect of Environmental Friendly Activities. *Journal of Tourism Management*, 31(1): 325-334.
- Iakovleva, T., L. Kolvereid and U. Stephan, 2011. 'Entrepreneurial intentions in developing and developed countries', *Education + Training*, 53(5): 353-370
- Ing-Long, W. and C. Jian-Liang, 2005. 'An extension of trust and TAM model with TPB in the initial adoption of on-line tax: an empirical study', *International Journal of Human-Computer Studies*, 62(6): 784-808.
- Jabareen, Y., 2005. Culture and housing preferences in a developing city. *Environment and Behavior*, 37(1): 134-146.
- Jahya, N.b., 2004. Factors That Influence Muslim Consumers Preference Towards Islamic Banking Products or Facilities: Theory Of Reasoned Action. Unpublished Dissertation.
- Jaradat, M.R.M. and M.S. Rababaa, 2013. Assessing Key Factor that Influence on the Acceptance of Mobile Commerce Based on Modified UTAUT, *International Journal of Business and Management*, 8(23): 102-112
- Jen-Ruei, F., F. Cheng-Kiang and C. Wen-Pin, 2006. 'Acceptance of electronic tax filing: A study of taxpayer intentions', *Information & Management*, 43: 109-126
- Kalafatis, S.P., M.H. Tsogas and C. Blankson, 2000. "Positioning strategies in business markets", *Journal of Business & Industrial Marketing*, 15(6): 416-37.
- Kartajaya, 1994. "Nilai Tambah untuk Sebuah Properti", *SWA*, special edition.
- Kaynak, E., and Stevenson, 1982. Comparative study of home buying behaviour of Atlantic Canadians. *Management Research News*, 5(1): 3-11.
- Kichen, J.M. and J.L. Roche, 1990. "Life-care resident preferences", in Chellis, R.D., Grayson, P.J. (Eds), *Life Care*, D.C. Heath, Lexington, MA, pp: 49-60.
- Kim, Y., and H. Han, 2010. Intention to pay conventional-hotel prices at a green hotel - a modification of the theory of planned behavior. *Journal of Sustainable Tourism*, 18(8): 997-1014.
- Kokli c, M.K., and I. Vida, 2009. A Strategic Household Purchase: Consumer House Buying Behavior. *Managing Global Transitions*, 7(1): 75-96
- Kotler, P., K.L. Keller, 2006. *Marketing Management*. New Delhi: Prentice-Hall of India
- Lechner, L., H. de Vries and N. Offermans, 1997. Participation in a breast cancer screening program: Influence of Past Behavior and Determinants on Future Screening Participation. *Preventive Medicine*, 26: 473-482.
- Lee, S.W., P.D. Taylor, S.K. Hong, 2008. Moderating effect of forest cover on the effect of proximity to chemical facilities on property values. *Landscape and Urban Planning*, 86(2): 171-176.
- Levine, J., 1998. Rethinking accessibility and jobs-housing balance. *Journal of the American Planning Association*, 64(2): 133-149.
- Lewis, W., R. Agarwal. And V. Sambamurthy, 2003. 'Sources of influence on beliefs about information technology use: An empirical study of knowledge workers', *MIS Quarterly*, 27(4): 657-678.

Lonappan, J., 2013. 'An Evaluation of factors influencing customer's home buying decision', Indian Journal of Research, 2(11).

Malhotra, Y., and D.F. Galletta, 1999. Extending the Technology Acceptance Model to Account for Social Influence: Theoretical Bases and Empirical Validation. Proceedings of the 32nd Hawaii International Conference on System Sciences.

Mathieson, K., 1991. 'Predicting user intention: Comparing the technology acceptance model with the theory of planned behavior,' Information System Research, 2(3): 173-191.

Mubarak, F.A. Cultural Adaptation to Housing Needs: A Case Study, Riyadh, Saudi Arabia. IAHS Conference Proceedings, June 1-7 1999 San Fransisco.

Norzalila, B.J., 2004. A study of Consumer Intention to Purchase Halal Food Products. Unpublished Dissertation, Universiti Sains Malaysia, Pinang.

Numraktrakul, P., A. Ngarmyarn, S. Panichpathom, 2012. Factors Affecting Green Housing Purchase. Department of Real Estate Business, Thammasat Business School, Thammasat University, Thailand.

Nysveen, H., H. Pedersen, H. Thorbjornsen and P. Berthon, 2005. Mobilizing the brand. Journal of Service Research, 7(3): 257-276.

Opoku, R., and A. Abdul-Muhmin, 2010. Housing preferences and attribute importance among low-income consumers in Saudi Arabia. Habitat International, 34: 219-227.

ORJI, R., 2010. Impact of Gender and Nationality on Acceptance of a Digital Library: An Empirical Validation of Nationality Based UTAUT Using SEM. Journal of Emerging Trends in Computing and Information Sciences, 1(2): 68-79.

Phungwong, O., 2010. Factors influencing home purchase intention of Thai single people. Published dissertation. , International graduate school of business, University of South Australia, Adelaide, Australia

Priyambodo, L., Tjiptono, F., & Suyoto. (2012). M-Commerce in Indonesia: Problems and Prospects. International Journal of Computer Applications & Information Technology, 1(2): 71-76.

Ramayah, T. and Mohd. N. Suki, 2006. 'Intention to use mobile PC among MBA students: Implications for technology integration in the learning curriculum', UNITAR E-Journal, 1(2): 1-10.

Ramayah, T., M. Jantan and B. Aafacqi, 2003. Internet usage among students of Institutions of higher learning: The role of motivational variables. The Proceedings of the 1st International Conference on Asian Academy of Applied Business Conference, Sabah, Malaysia, 10-12th July, 2003

Ramayah, T., O.S. May and A. Omar, 2008. 'Behavioral determinants of online banking adoption: Some evidence from a multicultural society', I-manager's Journal of Management, 2(3): 29-37.

Rinner C., and A. Heppleston, 2006. "The spatial dimensions of multicriteria evaluation case study of a home buyer's spatial decision support system", in M. Raubal *et al.* (Eds.). GIScience 2006. Berlin: LNCS 4197, pp: 338- 352.

Rivis, A., and P. Sheeran, 2003. Descriptive norms as an additional predictor in the theory of planned behaviour: A meta-analysis. Current Psychology: Developmental, Learning, Personality, Social, 22: 218-233.

Rossini, p., 1998. Assessing Buyer Search Behaviour for Residential House Purchasers in Adelaide, School of International Business, University of South Australia.

Rutter, D.R., 2000. Attendance and reattendance for breast cancer screening: A prospective 3- year test of the theory of planned behavior. British Journal of Health Psychology, 5: 1-13.

Sekaran, U., 2003. Research methods for business : A skill-building approach (4th ed.). New York: John Wiley & Sons, Inc.

Sekaran, U. and R. Bougie, 2010. Research Methods for Business: A Skill Building Approach, Wiley; London

Sheng Wu, S., C.S. Lin and J. Lin, 2011, 'An empirical investigation of online users' keyword ads search behaviours', Online Information Review, 35(2): 177-193.

Shih, Y.Y. and K. Fang, 2004. 'The use of decomposed theory of planned behavior to study internet banking in Taiwan', Internet Research, 14(3): 213-223.

Summers, T., B. Belleau and Y. Xu, 2001. "Predicting purchase intention of a controversial luxury apparel product", Journal of Fashion Marketing and Management, 10(4): 405-419.

Susilawati, C. and G.B. Anunu, 2001. Motivation and perception influence buying home behaviour in Dilly, East Timor. Paper presented at 7th Press Annual Conference at Petra Christian University at Surabaya, Indonesia. pp: 1-7.

Taylor, S., and P. Todd, 1995. Understanding information technology usage: A test of competing models. Information Systems Research, 6(2): 144-176.

Tella, A., 2011. Predicting Users' Acceptance of E-Library from the Perspective of Technology Acceptance Model. International Journal of Digital Library Systems, 2(4), 34-44. <http://dx.doi.org/10.4018/jdls.2011100104>

Teo, T. and C.B. Lee, 2010. 'Explaining the intention to use technology among student teachers: An application of the Theory of Planned Behavior (TPB)', Campus-Wide Information Systems, 27(2): 60-67.

Teo, T.S.H. and S.H. Pok, 2003. Adoption of WAP-enabled mobile phones among internet users. *The International Journal of Management Science*, 31: 483-498.

Thakur, R., and M. Srivastava, 2013. Customer usage intention of mobile commerce in India: an empirical study. *Journal of Indian Business Research*, 5(1): 52–72. <http://dx.doi.org/10.1108/17554191311303385>

Tonglet, M., P.S. Phillips and A.D. Read, 2004. Using the Theory of Planned Behaviour to Investigate the Determinants of Recycling Behaviour: a Case Study from Brixworth. *Resources, Conservation and Recycling*, 41(3): 191-214.

Vaile, M.S.B., M. Calnan, D.R. Rutter and B. Wall, 1993. Breast cancer screening services in three areas: Uptake and satisfaction. *Journal of Public Health Medicine*, 15: 37-45.

Venkatesh, V. and F.D. Davis, 2000. 'A theoretical expansion of the technology acceptance model: Four Longitudinal field studies', *Management Science*, 46(2): 186-204.

Venkatesh, V., M.G. Morris, G.B. Davis and F.D. Davis, 2003. User acceptance of information technology: Towards a unified view. *MIS Quarterly*, 27(3): 425–478. <http://dx.doi.org/10.2307/3250981>

Wachs, M., B.D. Taylor, N. Levine and P. Ong, 1993. The changing commute: a case study of the jobs-housing relationship over time. *Urban Studies*, 30(10): 1711-1729

Wang, D., and S.-M. Li, 2004. Housing preferences in a transitional housing system: the case of Beijing, China. *Environment and Planning A*, 36(1): 69-87.

Wise, D., K. Goggin, M. Gerkovich, K. Metcalf and S. Kennedy, 2006. 'Predicting intentions to use condoms using gender, sexual experience, and the Theory of Planned Behavior', *American Journal of Health Education*, 37(4): 210-219.

Yusliza, M.Y., and T. Ramayah, 2011. 'Explaining the Intention to Use Electronic HRM among HR Professionals: Results from a Pilot Study', *Australian Journal of Basic and Applied Sciences*, 5(8): 489-497 ISSN 1991-8178.

Yusuf, AA., and B.P. Resosudarmo, 2009. Does clean air matter in developing countries' megacities? A hedonic price analysis of the Jakarta housing market, *Indonesia Ecological Economics*, 68(5): 1398-1407.

Zabel, J.E., and K.A. Kiel, 2000. Estimating the demand for air quality in four U.S.cities. *Land Economics*, 76(2): 174–194.