Defining Affecting Factors on real estate purchase decision: A survey of Mongolian residential real estate owners

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ABSTRACT: *Recent years, the concept of real estate has become more complexed and real estate buyer's demand and needs have been changed. This study investigates the factors that influencing buyers consider when purchasing residential real estate in Ulaanbaatar, Mongolia. Also, the study aimed to test and confirm the determine important factors for real estate purchase behavior. By surveyed a set of 320 Mongolian residential real estate owners who are bought apartment last 6 months, the response rate was 93 percent and uses 300 valid responses applying regression analysis and descriptive statistics. The Findings indicated that apartment features, financial conditions, environment have significant positive relationships with the real estate purchase decision. In addition, the implications of the studies for several factors are also discussed.*

KEYWORDS: *Residential real estate, Purchase decision, Purchase behavior*

I. INTRODUCTION

In recent years, construction companies and real estate agencies more concentrating on buyer behavior and demands. In the past decades happened lots of changes for residential real estate purchasing behavior cause buyers more sensitive for apartment details and external factors such as environment and financial etc. In fact, deciding where and what kind of residential property to purchase for a living can be complicated because of minor variables that need to be considered beforehand. Such as quality of Construction, interior design, size of the apartment, the layout of accommodation, natural lighting, parking area and kids' playground etc. Nowadays any business companies making market research and that analysis has increasingly recognized the significance of the behavior of market participants. In recent years most of market research concentrating about customer satisfaction, consumer intention but they don't usually interest consumer needs and the reason for purchase decision. The purpose of this study investigates consumer needs and how these needs affect for a consumer purchase decision. One of the most popular studies is Daly, J., Gronow, etc (2003) concepts and this research defined consumer behavior in the valuation of residential property and they compared three different countries which are UK, Ireland, and Australia. They determined greater knowledge of the factors which influence buyer behavior will lead to better understanding and prediction of decision making in real estate markets. Most real estate acquisitions would be considered high-involvement goods that require complex decision making for perhaps the most important financial commitment of a buyer's lifetime. Continuously Opoku, R. A., & Abdul-Muhmin, A. G. (2010) defined housing preferences and attribute importance among low-income consumers and that research was important since this study may provide crucial insight for real estate developers to satisfy the needs and wants of their consumers.

Consumer behavioral research can be separated into two categories: the external-oriented and internal-oriented. The first category is interested in demographic shifts as well as society's evolving values,beliefs, and practices that affect buyer interaction with the marketplace. Another one such as internal-oriented research investigates individual behaviors and the reasons behind them. This study belongs to the internal-oriented research.

II. LITERATURE REVIEW

This study based on consumer behavior and consumer purchase decision researches. The important determinant factor of a residential real estate is the features of the apartment structure (Quigley, 1976), the apartment's individual details are most influencing for the real estate choice. It means at that time consumer buying behavior more concentrating on apartment details. Friedman, J. (1981) researched a conditional logit model of the role of local public services in residential choice and the result was location is most highly positive effect for real estate choice. He estimated local public services and other community characteristics most important factor for household choice. After that Quigley,

J. M. (1985) defined Consumer choice of dwelling, neighborhood and public services and his research findings were schools and public expenditures have small negative effects on the probability of a renter in choosing a community, he interpreted these results as households, Preferences toward residences. Also, Nechyba, T. J. (1997) investigated impacts of several factors for household decisions which is tax public expenditures, tax, crime rate, commercial activity, and their study result was individual household's location decision is significantly affected by local public services and community entry prices. Also, local tax rates, crime rate, education quality of school positively influencing household choice. Bayoh, I., Irwin, E. G., & Haab, T. (2006) mentioned determinants of residential location choice and they resulted implication is that investments that promote central city development and reduce suburbanization are justified on efficiency grounds if negative externalities are generated by increased concentration of poverty, crime, and low school quality. Daly, J., Gronow, etc (2003) concepts and this research defined consumer behavior in the valuation of residential property and they determined 4 different types of factors which is Property physical factors, distance factors, environmental and location factors, financial factors influencing buyer decision. That research especially concentrated for financial factors which are a maximum mortgage, maximum monthly repayments, rateable value of the house and length of time house was on the market. Also, our study questionary design based on Daly, J., Gronow, etc (2003) research. We made our questionnaire design belongs for 3 factors which are apartment factors, environmental factors and financial factors and each three-factor has 5 to 7 questions.
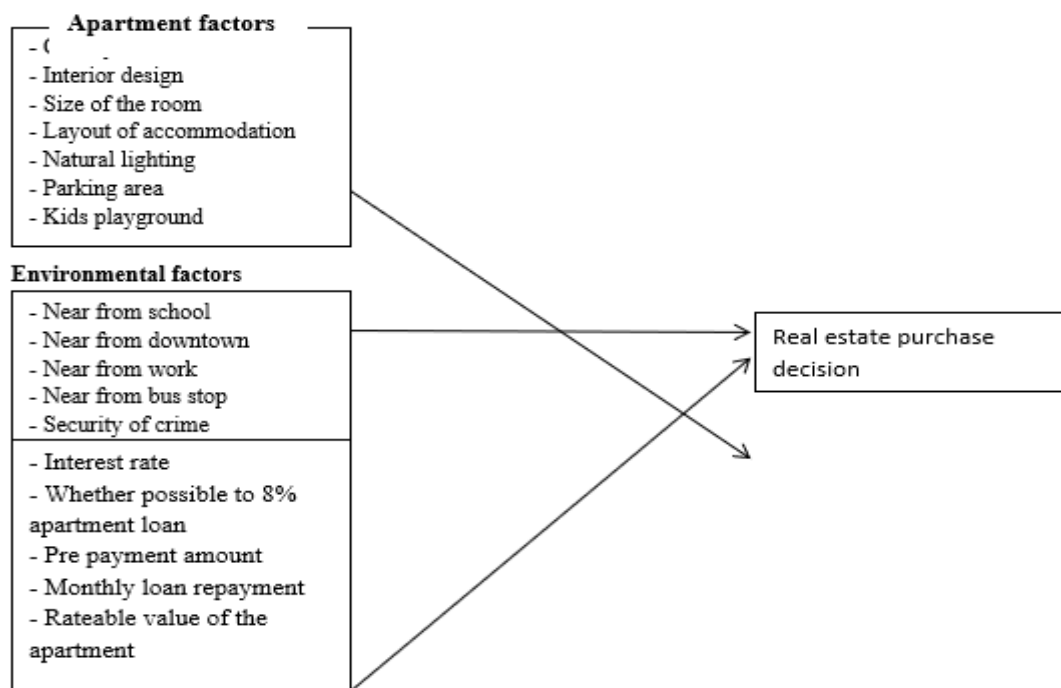
III. METHODOLOGY

The research was limited to the area of Ulaanbaatar, the capital city of Mongolia. The participants were residential real estate owners from Ulaanbaatar and a survey collected by real estate agencies. Totally 320 real estate owners who are bought apartment last 6 months participated, the response rate was 93 percent and uses 300 valid responses applying regression analysis and descriptive statistics. This research is focused on buyer decision of residential property of Mongolian real estate industry. A questionnaire designed by Likert scale 5 points and totally 18 questions belong to 3 different factors. Questions used a five-point Likert scale from 1 = 'very unimportant' to 5 = 'very important'.

Research framework

Figure 1. Framework of the study

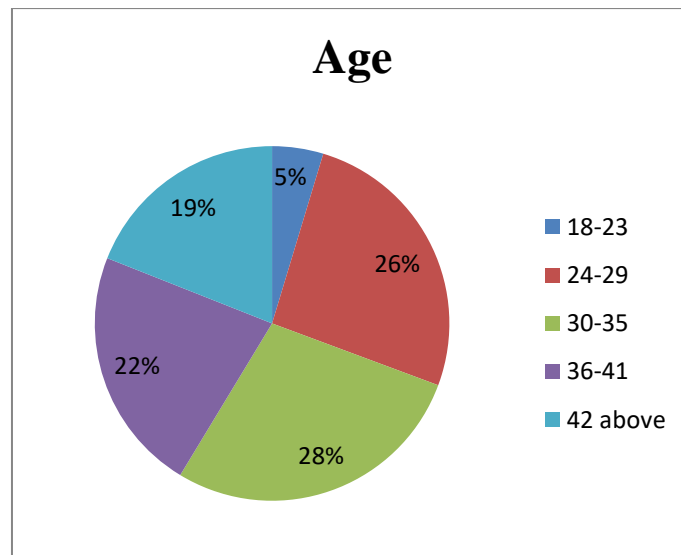Independent variables   Dependent variables

As you can see from Figure 1, the theoretical framework of this study. There is have two different variables. First one is independent variables which includes Quality of Construction, Interior design, Size of the room, Layout

of accommodation, Natural lighting, Parking area, Kids playground, Near from school, Near from downtown, Near from work, Near from bus stop, Security of crime, Traffic noise, Interest rate, Whether possible to 8% apartment loan, Prepayment amount, Monthly loan repayment and Rateable value of the apartment. Otherside dependent variable only includes Real estate purchase decision.

IV. DEMOGRAPHIC INFORMATION

Figure 2. Participants age

Participants who entered the survey ranging from 18 years old to 42 above. Each group were highlighted as different colors which indicated by their percentages on the chart. The highest percentage of the participants were shown in green color which ranged from 30-35. Vice versa lowest being blue with only 5% ranging from 18-23.
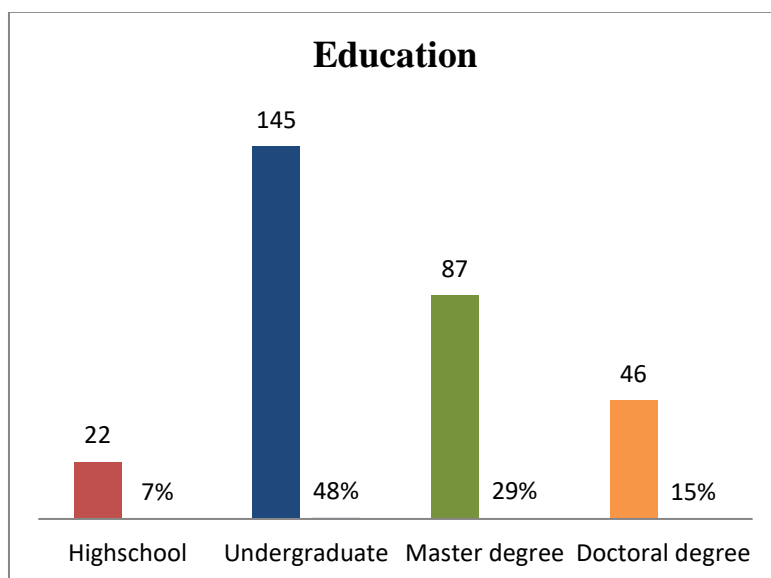
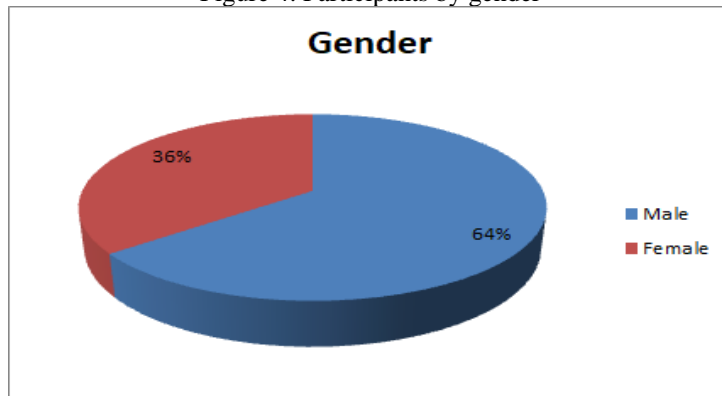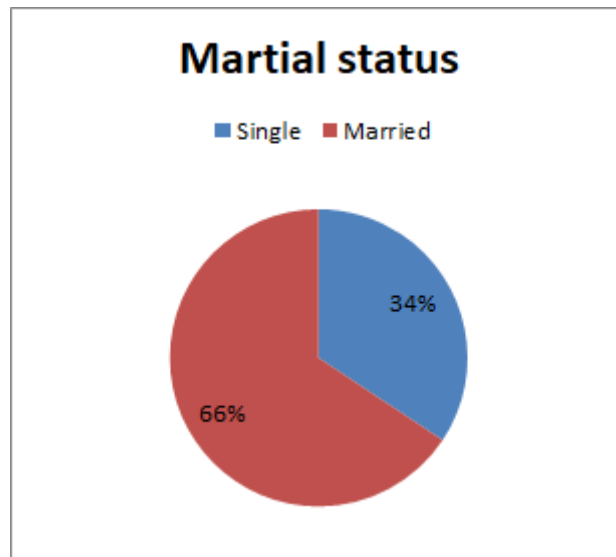Figure 3. Participant education by level

Figure 3 bar graph classified the participants according to their current education. Most participants fall under the Bachelor's degree program with 145 participants taking 48% of the total. Meanwhile, there was only 7% or 22 participants currently in high school.

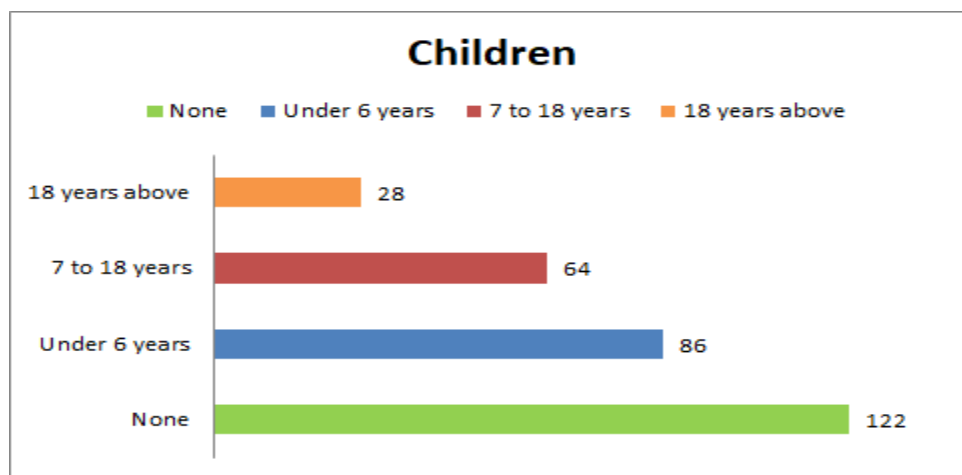Figure 4. Participants by gender

Based on their gender, male-dominated with 64% of the total participants and female being the rest 36%.
Figure 5. Participant's marital status

According to their marital status, most participants reported as married which being 66% while 34% of the total participants reported being single.

Figure 6. Whether participants have children

The further questionnaire then investigated among all the participants who have one or more children in their family and categorized based on children's age. Most participants of 122 reported having no children.

V. DATA ANALYSING

Table 1: Descriptive statistics

Status	Frequency	Percent	
	Gender		
Male	193	64%	
Female	107	36%	
	Age		
18-23	14	5%	
24-29	78	26%	
30-35	84	28%	
36-41	67	22%	
42 above	57	19%	
	Education		
Highschool	22	7%	
Undergraduate	145	48%	
Master degree	87	29%	
Doctoral degree	46	15%	
	Marital status		
Single	103	34%	
Married	197	66%	
	Children		
None	122	41%	
Under 6 years	86	29%	
7 to 18 years	64	21%	
18 years above	28	9%	

The following result was obtained after fitting the multiple linear regressions.

Table 2. Model summary

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.861ᵃ	.761	.629	3.84636

Predictors: (Constant), Quality of Construction, Interior design, Size of the room, Layout of accommodation, Natural lighting, Parking area , Kids playground, Near from school, Near from downtown, Near from work, Near from bus stop, Security of crime, Traffic noise, Interest rate, Whether possible to 8% apartment loan, Prepayment amount, Monthly loan repayment and Rateable value of the apartment The adjusted R-square in the table shows that the dependent variable, (Real estate purchase decision) is affected by 62.9% by independent variables (Quality of Construction, Interior design, Size of the room, Layout of accommodation, Natural lighting, Parking area , Kids playground, Near from school, Near from downtown, Near from work, Near from bus stop, Security of crime, Traffic noise, Interest rate, Whether possible to 8% apartment loan, Prepayment amount, Monthly loan repayment and Rateable value of the apartment). It shows that predictor factors are responsible for influencing real estate purchase.

The overall model was also significant, tested with the help of ANOVA. The results are given in the following table.

Table 3. ANOVA Results

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1211.438	18	312.285	189.681	.000b
	Residual	438.125	282	2.563		
	Total	1649.563	300			

Dependent Variable: Real estate purchase decision

Predictors: Predictors: (Constant), Quality of Construction, Interior design, Size of the room, Layout of accommodation, Natural lighting, Parking area, Kids playground, Near from school, Near from downtown, Near from work, Near from bus stop, Security of crime, Traffic noise, Interest rate, Whether possible to 8% apartment loan, Prepayment amount, Monthly loan repayment and Rateable value of the apartment ANOVA table is showing the level of significance. Through the table it is clear that all subfactors Quality of Construction, Interior design, Size of the room, Layout of accommodation, Natural lighting, Parking area , Kids playground, Near from school, Near from downtown, Near from work, Near from bus stop, Security of crime, Traffic noise, Interest rate, Whether possible to 8% apartment loan, Prepayment amount, Monthly loan repayment and Rateable value of the apartment are related to Real estate purchase decision and that the relationship between them is significant as compared to alpha value=0.05.

Table 4 Regression Co-efficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	28.947	.426		24.389	.050
	Quality of Construction	.225	.055	.228	2.335	.020
	Interior Design	.211	.039	.284	2.324	.000
	Size of the apartment	.193	.067	.210	3.532	.017
	Layout of accommodation	.134	.090	.291	2.437	.037
	Natutal lighting	.223	.089	.278	2.058	.002
	Parking area	.184	.075	.231	2.288	.013
	Kids playground	.190	.058	.199	2.100	.000
	Near from school	.168	.097	.261	2.118	.060
	Near from downtown	.147	.023	.272	2.037	.000
	Near from work	.126	.011	.283	1.957	.045
	Near from bus stop	.105	.041	.295	1.876	.039
	Security of crime	.181	.026	.306	1.796	.015
	Traffic noise	.163	.033	.317	1.716	.000
	Interest rate	.241	.057	.208	1.635	.000
	Whether 8% loan	.331	.088	.340	1.555	.007
	Pre Payment amount	.301	.062	.351	1.474	.000
	Monthly repayment	.213	.063	.362	1.394	.009
	Reteable value	.142	.071	.213	1.314	.000

Dependent Variable: Real estate purchase decision As you can see from table 4, all of the independent variables the coefficients included in the model their p values. Unstandardized Coefficients B shows that all sub-factors influencing for "Real estate purchase decision" positively and each factor is significantly related to "Real estate purchase decision". Standardized Coefficients Beta line shows us significance level of every single factor for the dependent variable. The regression model shows standardized Coefficients beta highest three factor is .362 Monthly repayment, .351 Prepayment amount, .340 whether possible to 8% loan and it means these three factors the most important for a Real estate purchase decision. These three factor belongs to the financial factors and it shows financial condition is most important for Mongolian real estate buyers. After that traffic noise (beta= .317), security of crime (beta= .306), near from bus stop (beta= .295) is important for buyers and it means environmental factors strong positive relationship with real estate purchase decision in Ulaanbaatar. From apartment details Layout of accommodation (beta= .291), Interior Design (beta= .284), Natutal lighting (beta= .278) are more significant for dependent variable. Also most less beta coefficient factors were Kids playground (beta= .199), Interest rate of the loan (beta= .208), Rateable value of the apartment (beta= .213) and that shows this kind of factors less significant for Real estate purchase decision.

VI. CONCLUSION

Conclude all types of companies sell revenue and their consumer purchase behavior is the most important section, and considered as most reliable feedback, for the excellence of any business organization. The consumer purchase decision is the part of business activities and plays important role in the market. About this study investigated the factors that influence buyer's decision when purchasing residential real estate in the case of Ulaanbaatar, Mongolia property market. Also, the study aimed to test and confirm the determined important factors for Mongolian real estate purchase behavior. This study was conducted and to examine the relationship between the Real estate purchase decision), Quality of Construction, Interior design, Size of the room, Layout of accommodation, Natural lighting, Parking area , Kids playground, Near from school, Near from downtown, Near from work, Near from bus stop, Security of crime, Traffic noise, Interest rate, Whether possible to 8% apartment loan, Prepayment amount, Monthly loan repayment and Rateable value of the apartment. The result was financial factors which are is Monthly repayment , Prepayment amount , whether possible to 8% loan most significant for Real estate purchase decision in Ulaanbaatar Mongolia. Also, environmental factors which are traffic noise, security of crime, near from bus stop strong positive relationship between real estate purchase. Other factors were also the positive impact on a real estate purchase decision.

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