

Factors Influencing Consumers' Choice Criteria to Purchase Residential Apartments in Bangladesh

Md. Abdullah Al Jamil, Afzal Hossain & Md. Zillur Rahman Siddique

Abstract:

This study aims to explore the factors that influence consumers' choice criteria to purchase residential apartments in Bangladesh. This data is collected from 200 respondents by survey method through a structured questionnaire with five-point Likert scales & multiple items. Convenience sampling method is used. Data are analyzed using frequency analysis, factor analysis and regression analysis. From the results of regression analysis, this investigation is found that performance factors, geographical factors and infrastructural factors are significantly influenced consumers' choice criteria to purchase residential apartments in Bangladesh. The results of this research may be helpful for both investigators and real estate companies. For investigators, this examination gives instruction for accepting to choice criteria, demographics level, and their relative significance. Literature for upcoming exploration, this research indicates ways to recognize additional thoughtful factors which influence consumers' choice criteria to purchase residential apartments in Bangladesh. Besides, this exploration gives realistic direction and pertinent suggestions to the real estate companies. Real estate companies will be profited identifying factors of consumers' choice criteria to purchase residential apartments in Bangladesh. Those companies offer to consumers for purchase residential apartments in Bangladesh.



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Introduction

Shelter is one of the basic needs for human beings. For shelter people may go for land to build their abodes or may purchase a ready apartment for their residences. The real estate sector of Bangladesh has been growing very rapidly for last few years due to the boom in demand for ready apartments through the vast number of populations and scarcity of land. Moreover, the total number of population is almost 16.63 crore and almost 36.5% people live in urban area in Bangladesh (estimated by United Nations in 2018). Furthermore, now-a-days people are very busy with their works and they do not have enough time to construct their own houses. But they desire to have a home of relaxed breathing and contemporarily gorgeous looks with all facilities or amenities. The modern people want to attain the status of consumers through purchasing the ready aesthetically sound apartments as their sweet homes. That's why, the real estate marketers should identify the most valuable factors that may influence the consumers to purchase ready apartments for as a place of abode. The purchase of an apartment is highly involved with the complex decision making process and it requires a combination of lots of information regarding the features, qualities, facilities, design, prices, atmosphere, commitment of the companies or developers and so on. The triumph of ready apartment business depends on appropriately exploring the buying manners of real estate clientele. It is inescapable to realize the alters that have taken place in the industry and market factors and variables to discern the needs of customers that sturdily persuade the customers' buying approach and shaped prospects for real estate sector. One of the five basic requirements of human life is housing that contributes by The Real Estate sector. At the same time the sector is playing a remarkable role in economic growth of the country. The process of the real estate business in Bangladesh is exceptional to the world. It is intermingle of diverse housing cultures from different nations practiced by professionals whose construction companies had met expertise from working in other countries. At present, real estate sector is playing the leading role in case of providing dwelling units, but still, this sector has vast range to thrive in the housing market of metropolitan cities of Bangladesh. Appropriate completion of development policies can produce immense prospect for this sector curtly. The research aims to investigate why consumers' preference is increasing in purchasing apartments rather than purchasing lands for building their houses in urban areas of Bangladesh.

Literature Review

Purchasing a residential apartment is one of the most noteworthy economic choices that people make, and it necessitates congregation a lot of information concerning its features, qualities, facilities, design, prices and environments (Haddad, et al., 2011; Zadkarim and Emari, 2011; Kiefer, 2007). Mohiuddin (2014) explored that due to increased land cost as well as construction cost and other reasons such as reluctance of individuals to spend time and energy in house construction, increased awareness of apartment living and western influence residential apartments purchase tendency is becoming popular. The study of Labib, Bhuiya and Rahaman (2013) has showed that the peoples preferences for attractive location and factors considering for buying an apartment. Due to urbanization, high population growth, the scarcity of open and vacant land, hazards in land purchasing, increasing the price of land, lack of public supports act as catalyst for Real Estate explosion. Khaled, Sultana, Biswas and Karan (2012) showed that the people of Chittagong regions are now not interested to buy a land for building their own house due to high price of land, insufficiency of land, high cost of land registration, and high price of building materials. However, enviable

services amenities and project facilities in the apartment persuade the buyers to buy residential flats. Moreover, the land prices in Dhaka city has been increasing fast and the price of the constructions materials is also increasing. On the other hand, the city is growing upward and multi-storied building is seen as the solution of the problems. Apartment living as concept has been gaining popularity in our country (Ullah, et al., 2000).

Dewri, Amin, Sen and Faridi (2012) originated the reasons of escalating affinity of buying residential apartments in Dhaka city and which are fast raise in the inhabitants of the city, shortage of vacant lands in important parts of the city, lofty prices of lands, hazards involving procure of lands, the land owners' profit motives, boost of remittance inflows and re-structuring of households to single family units. Islam, M. T. (2008) analyzed that the topical trends and the grounds of booming of the Real Estate business in Bangladesh are land scarcity, hazards in purchasing the land, population growth, urbanization and Migration, rent variation, hazards in construction building, lack of social security, public sector failure, increased population, complementary services and so on. According to Zawawi, Wong, Busu, & Hamzah, (2004), the household preference for residence mainly influenced through the features of the apartment building. Moreover, the family members play a crucial role to make a purchase decision regarding residential flats (Gabriel and Rosenthal, 1989). Friedman (1980) has anticipated the function of local municipal services on residential site preference. Additionally, Nasar K.K & Manoj P K (2013) showed that the behavior of real estate investors in making investment decisions, like the various personal and behavioral factors influencing the citizens' purchase decisions. MacLennan (2002) underlined that economists have typified housing as a package of features. Some of these aspects are derived from the inner characteristics of the house part itself such as the number of rooms and the examples of external features are location, convenience to utilities, services and facilities.

Objectives of the Study

The Broad objective of the study is to investigate the factors that influence consumers' choice criteria to purchase residential apartments in Bangladesh. There are some specific objectives such as:

- a) To investigate the level of interest to purchase residential apartments based on demographic characteristics of the consumers.
- b) To offer a guideline based on the study to the Real estate businessmen about the vital factors that may influence the consumers to purchase an apartment.

Conceptual Framework

This investigation aims at identifying the factors that influence consumers' choice criteria to purchase residential apartments in Bangladesh. In order to conduct the paper, seventeen independent variables have been selected from the literature review.

Independent variables		
Nearby social institutions	After sales services	Developer brand
Neighbor moral	Promise handover time	Transaction system
Transportation facility	Quality product	Available financial
Posh urban area	Building appearance	Reasonable price
Safety and security area	Physical facilities	Value based pricing
Caring and courteous	Flat size	
Dependent variable: Consumers' choice criteria to purchase residential apartments		

Research Methodology

The study is quantitative in nature. For collecting primary data, the personal interview has been conducted. From the secondary sources, the literature review has been developed. Structural questions have prepared consists of 25 items for data collections. Five issues have been related to demographic variables such as occupation, age group, gender, education qualification and yearly income. Two multiple items scale questions deal with consumers responsible factors for purchase decision and consumers felt when signed the contract with the organization. Eighteen questions are about factors influencing consumers' choice criteria to purchase residential apartments in Bangladesh. Those questions (Nearby social institutions, Neighbor moral, Transportation facility, Safety and security area, Caring and courteous, After sales service, Quality product, Promise handover time, Building appearance, Physical facilities, Flat size, Developer brand, Convenient Transaction system, Available finance, Reasonable pricing, Value based pricing, and Preference to purchase) are composed of purchase residential apartments measures by using five point Likert scales (from 1= 'Strongly disagree' to 5= 'Strongly agree'). Applying the convenience sampling techniques, primary data is collected through the personal interview with 200 respondents. Cronbach's Alpha is 0.844 for 18 items of variables which suggest that the examination instrument is reliable to evaluate all hypotheses reliably and free from random error. Data collected from questionnaires are analyzed by applying several statistical tools like frequency analysis, factor analysis and regression analysis by using SPSS 16.0.

Results and Discussions

The demographic profile of respondents

Table 1 depicts the different frequency and percentages of the demographic profile of respondents. It appears that occupation status, majority of respondents are Businessman (23%), the second highest of respondents are Corporate (18%), the third highest of respondents are Physician /Heath worker (14%), the fourth highest of respondents are Marketing officer (11.7%), the fifth highest of respondents are Banker (11.3%), the sixth highest of respondents are Govt. Jobholder (9.3%) and minority of respondents are others (2.7%). It shows that respondents are mostly in the age categories 41–50 years old (40.1%), the second highest of respondents are in the age categories 31-40 years (33.3%), the third highest of respondents are in the age categories 51-60 years (7.2%), the fourth highest of respondents are in the age categories below 30 years (5.9%) and Minority of respondents are in the age categories 61 years above (3.6%). Majority of respondent is males (59.5%) with females constituting (30.5%). With regards to educational qualification, 37.8% of respondents are both Honors and Postgraduate. 14.4% respondents are HSC or less. Therefore, most of the respondents are both graduate & postgraduate and minority of the respondents is HSC or less. It reveals that respondents are majority in the yearly income level BDT 90001-105000 (33.8%), the second highest of respondents are income level BDT 135000+ (24.8%), the third highest of respondents are income level BDT 12000-135000 (7.7%), the fourth highest of respondents are income level BDT 45000-60000 (6.8%), the fifth highest of respondents are income level BDT 60001-75000 (6.3%), the sixth highest of respondents are income level BDT 75001-90000 (4.5%), the seventh highest of respondents are income level BDT 105001-120000 (4.1%) and minority of respondents are income level Under BDT 45000 (2.5%).

Table 1: The demographic profile of respondents

Variable	Frequency	Percentage
Occupation		
Banker	25	11.3
Corporate	40	18.0
Businessman	51	23
Govt. Jobholder	21	9.5
Marketing officer	26	11.7
Physician / Heath workers	31	14
Others	6	2.7
Age		
Below 30	13	5.9
31-40 Years	74	33.3
41-50Years	89	40.1
51-60 Years	16	7.2
61 Years +	8	3.6
Gender		
Male	132	59.5
Female	68	30.5
Education Qualification		
HSC or less	32	14.4
Honors	84	37.8
Postgraduate	84	37.8
Yearly Income		
Under BD TK. 45000	5	2.3
BD TK. 45000-60000	15	6.8
BD TK.60001-75000	14	6.3
BD TK.75001-90000	10	4.5
BD TK.90001-105000	75	33.8
BD TK.105001-120000	9	4.1
BD TK.12000-135000	17	7.7
BD TK.135000+	55	24.8

Factors are responsible for purchasing decision

Table 2 presents that majority of the consumers are agreed that deposit (25.2%) are the first responsible factor for purchase decision in residential apartments, Income (19.8%) are the second responsible factor for purchase decision in residential apartments, Group or association (16.2%) are the third responsible factor for purchase decision, Colleague (14.4%) are the fourth responsible factor for purchase decision, Family (7.2%) are the fifth responsible factor for purchase decision, Friends (5.4%) are the sixth responsible factor for purchase decision and Dream (1.8%) are the seventh responsible factor for purchase decision in residential apartments in Bangladesh.

Felt when signed the contract with the organization

Table 3 shows that most of the consumers are felt that protected investment (34.2%) are the first factor when consumers signed the contract with the organization, Enough idle money to invest (19.8%) are the second factor when consumers signed the contract with the organization, No risk of losing money (16.2%) are the third factor when consumers signed the contract with the organization, Strong brand image of the organization (10.8%) are fourth factor when consumers signed the contract with the organization, Some of respondents are said that Don't remember (7.8%) when consumers signed the contract with the organization and It was ongoing process so I didn't feel nothing (1.8%).

Table 2: Factors are responsible for purchase decision

Particulars	Frequency	Percent	Valid Percent	Cumulative Percent
Deposit	56	25.2	28.0	28.0
Income	44	19.8	22.0	50.0
Family	16	7.2	8.0	58.0
Friends	12	5.4	6.0	64.0
Colleague	32	14.4	16.0	80.0
Group or association	36	16.2	18.0	98.0
Dream	4	1.8	2.0	100.0

Table 3: Felt when signed the contract with the organization

Particulars	Frequency	Percent	Valid Percent	Cumulative Percent
No risk of losing money	36	16.2	18.0	18.0
protected investment	76	34.2	38.0	56.0
Enough idle money to invest	44	19.8	22.0	78.0
Strong brand image of the organization	24	10.8	12.0	90.0
It was ongoing process so I didn't feel nothing	4	1.8	2.0	92.0
Don't remember	16	7.2	8.0	100.0

Factor Analysis

The Principle Component Analysis has used and total 17 variables have included in the factor analysis. At first a correlation matrix has constructed and then tests the appropriateness of factor model. Bartlett's test of Sphericity has been used to test the hypothesis that variables are uncorrelated in the population.

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.682
Bartlett's Test of Sphericity	Approx. Chi-Square	767.921
	df	136
	Sig.	.000

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Table 4 has revealed that the approximate chi-square statistics is 767.921 with 136 degrees of freedom which is significant at .05 levels and the value of KMO statistics (0.682) is also greater than 0.5. Therefore, the factor analysis may be considered an approximate technique for analyzing the data.

Using varimax rotation, reducing the 17 variables, we have got 5 uncorrelated factors having Eigen value greater than 1.

Table 5: Rotated Component Matrix

Variables	Component				
	1	2	3	4	5
Nearby social institutions	.578	.135	.008	.097	.286
Neighbor moral	.636	-.272	.037	.081	.081
Transportation facility	-.047	.592	.024	.050	.041
Posh urban area	.011	.646	-.034	-.032	.467
Safety and security area	.148	.176	.027	.105	.751
Caring and courteous	.127	-.003	.235	.023	.723
After sales services	.587	.128	.119	-.200	.054
Promise handover time	.723	-.114	-.090	-.029	.173
Quality product	.080	.094	-.046	.763	-.044
Building appearance	.041	.601	.300	.125	-.047
Physical facilities	-.147	-.029	.141	.775	.202
Flat size	.197	.562	-.087	.577	.084
Developer brand	.625	.062	.515	.084	-.195
Transaction system	.558	.157	.264	.387	-.217
Available financial	.088	-.129	.699	.128	.193
Reasonable price	-.151	.502	.559	-.030	.110
Value based pricing	.160	.311	.717	-.098	.083

From the above Rotated Component Matrix we get the following uncorrelated variables:

Table –6: Uncorrelated Factors

No.	Name of the factors	Loaded Variables
1	Performance factors	Nearby social institutions, Neighbor moral, After sales services, Promise handover time, Developer brand, Convenient transaction system
2	Geographical factors	Transportation facility, Posh urban area, Building appearance.
3	Appropriate pricing	Available financial, Reasonable price, Value based pricing.
4	Infrastructural factors	Quality product, Physical facilities, Flat size.
5	Safe and Secure area	Safety and security area, Caring and courteous.

The result of regression analysis

From the factor analysis we get 5 uncorrelated factors, those are - performance factors, geographical factors, appropriate pricing, infrastructural factors, safe and secure area. Those factors are selected as the independent variables and consumers' choice criteria to purchase residential apartments as the dependent variable for the multiple regression analysis

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.782	.611	.601	.70891

Predict relationship between factors and purchase residential apartments

Table 7 presents that the value of correlation coefficient, $R = 0.782$ suggests that there is moderate positive correlation between consumers' choice criteria to purchase residential apartments and performance factors, geographical factors, appropriate pricing, infrastructural factors, safe & secure area. however, only 61.1 % (R-square values of 0.611) variation in consumers' choice criteria to purchase residential apartments is accounted due to performance factors, geographical factors, appropriate pricing, infrastructural factors, safe & secure area.

Confirm the model fitness (Analysis of variance)

Table 8 reveals that multiple regression analysis is performed to investigate the relationship between performance factors, geographical factors, appropriate pricing, infrastructural factors and safe & secure area with consumers' choice criteria to purchase residential apartments. Five factors are proposed and results are enumerated in table 8. the f-statistics produced ($f = 61.039$) is significant at 1 percent level (sig. $f < 0.01$) with 5 and 194 degree of

freedom, thus confirming the fitness for the model. The adjusted r^2 is 0.601 (From table 7), connoting that the five factors can significantly account for 60.1% variance in the consumers' choice criteria to purchase residential apartments.

Table 8: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	153.379	5	30.676	61.039	.000
Residual	97.496	194	.503		
Total	250.875	199			

Table 9: Coefficients

model		Unstandardized coefficients		Standardized coefficients	t	sig.
		b	std. error	beta		
1	(constant)	-1.742	.458		-3.802	.000
	Performance factors	.202	.095	.101	2.125	.035
	Geographical factors	.381	.080	.246	4.782	.000
	Appropriate pricing	-.122	.079	-.078	-1.546	.124
	Infrastructural factors	.876	.065	.647	13.563	.000
	Safe & secure area	.097	.079	.059	1.233	.219

a. Dependent variable: Purchase apartments

Factors influencing consumers' choice criteria to purchase residential apartments

The results of multiple regression analysis in table 9 that performance as the important factors, which significantly influence consumers' choice criteria to purchase residential apartments β (1 = 0.101; t-value = 2.125; $p < 0.05$). Therefore, performance factors are influenced consumers' choice criteria to purchase residential apartments. Next, geographical factors as the vital factors, which notably influence consumers' choice criteria to purchase residential apartments ($\beta_2 = 0.246$; t-value = 4.782; $p < 0.05$). Thus, geographical factors are influenced consumers' choice criteria to purchase residential apartments. Next, infrastructural as the key factor, which considerably influence consumers' choice criteria to purchase residential apartments ($\beta_4 = 0.647$; t-value = 13.563; $p < 0.05$). As a result, infrastructural factors are influenced consumers' choice criteria consumers' choice criteria to purchase residential apartments.

The results in table 9 corroborates that appropriate pricing negatively and insignificantly influence consumers' choice criteria to purchase residential apartments ($\beta_3 = -0.078$; t-value

= -1.546; $p > 0.05$). Therefore, appropriate pricing factors have no effects consumers' choice criteria to purchase residential apartments. Next, safe & secure area insignificantly influence consumers' choice criteria to purchase residential apartments ($\beta_5 = 0.059$; $t\text{-value} = 1.233$; $p > 0.05$). Consequently, safe & secure area factors have no effects consumers' choice criteria to purchase residential apartments.

Conclusions and Implications

The study has been undertaken with an aim to recognize the factors that may influence consumers' choice criteria to purchase residential apartments in Bangladesh. Several factors are vital apparatus to persuade consumers' preference criteria to purchase residential apartments. The investigation examines performance factors, geographical factors, appropriate pricing, infrastructural factors, safe and secure area influence consumers' choice criteria to purchase residential apartments in Bangladesh. From the results of regression analysis, this research is revealed that performance factors, geographical factors and infrastructural factors as the important factors, which influence consumers' choice criteria to purchase residential apartments in Bangladesh. From regression analysis, appropriate pricing, safe and secure area don't influence consumers' choice criteria to purchase residential apartments in Bangladesh. The results of this research may be helpful for both investigators and real estate companies. For investigators, it gives instruction for accepting to choice criteria, demographics level, and their relative significance. Literature for upcoming exploration, this research indicates ways to recognize additional thoughtful factors which influence consumers' choice criteria to purchase residential apartments in Bangladesh. Besides, this investigation gives realistic direction and pertinent suggestions to the real estate companies. Real estate companies will be profited identifying factors of consumers' choice criteria to purchase residential apartments in Bangladesh. Those companies offer to consumers for purchase residential apartments in Bangladesh.

Limitation and Further Research

This data may not be the real representative of overall Bangladeshi consumers' view due to sample size and sample area. The investigation is limited only respondents or consumers who have already purchased residential apartments for applying questionnaire survey in Bangladesh. These findings may not be applicable to other places. This investigation found some influences of independent variable and the study is conducted in Chittagong division that is national small portion. As a result, there may be some other variable and the study will be conducted in a larger area or in the whole of Bangladesh. Those factors are left for further examination.

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