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# FACTORS AFFECTING BUYING BEHAVIOUR IN THE PURCHASE OF RESIDENTIAL PROPERTY: A FACTOR ANALYSIS APPROACH

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**Abstract:** *Purpose: The main objective of this study is to find the relative importance of the various criteria that home buyers consider while evaluating the available alternatives. This study also attempts to categorize these variables into factors.*

*Methodology: This is a descriptive research in which non-disguised and structured questionnaire having closed-ended questions. It was administered to collect data from the respondents.*

*Findings: It was found in the study that financial factors are given the highest consideration while evaluating the alternatives by the residential property buyers. The variables could be grouped into six factors.*

**Keywords:** *Residential Property Buying, Factors Affecting Home Buying Decision, Factor Analysis*

## INTRODUCTION

The purchase of a residential property is a high-involvement purchase and the buyer goes through a complex buying decision-making process. In a complex buying decision-making, the buyer goes for extensive information search from various sources and almost all family members participate in buying decision and the time taken for final decision-making is also high (Sciffman & Kanuk, 2004).

Own house is a vital need for humans. It is a basic need and considered an element of the standard of living. The house gives safety, privacy and independence. Homeownership provides stability to family life and it is also used as an investment (Rahman, 2010).

Economists characterized housing as a bundle of attributes (MacLennan 2002). Some of these attributes are internal characteristics of the housing unit itself, such as, whereas external are access to utilities, services and facilities and location. Very little research had been carried out in the UK to understand consumer needs and wants in regards to housing preferences and interest (Mills, 2000). Due to this, there is a significant gap between developers' perceptions and consumers' expectations, which resulted in customer dissatisfaction (Swartz & Brown, 1989). So, Ozaki (2002) tried to bridge this gap by calling researchers to study this issue. It is now very important to study the factors affecting buyer behaviour regarding residential property. It will help residential property developers in fulfilling the needs of customers of residential real estate products (Opoku & Abdul-Muhmin, 2010).

Residential property market studies have found increasing recognition and the importance of buyers' behaviour, among researchers and the property industry. There is a high acceptance of need of studying the consumer behaviour in real-estate products (Gallimore, 1999). Most studies in this area have investigated the behavioural concepts that affect the price-setting processes and market's search. It is important to understand the buying decision-making process as the value of the residential property is determined by the demand (Almond, 1999).

## LITERATURE REVIEW

The objective of the literature review was to find out the factors that customers consider while they purchase a home. Kim *et al.* (2005) found that home buyers evaluate the home on the basis of neighbourhood characteristics, job accessibility and specific house characteristics. In their study,

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Majid *et al.* (2012) found that buyers' demographic factors like gender, marital status and employment affect the criteria they use to evaluate the alternatives while buying a housing unit. In Amman, Haddad *et al.* (2011) explored that social, economic, aesthetic, geographic and marketing construct affect the buying behaviour significantly. This study also concluded that gender and age of home buyers affect their buying behaviour. Saw and Tan (2014) concluded in a study that structural factors, location and financial factors affect the home buyers' purchase intentions. Tan (2011) found that home buyers were ready to buy a residential property that has good neighbourhood at a premium price. Kulshreshtha et al. (2017a; 2017b) report that price is one of the most important criteria while the purchase of electronic products. A study by Choguill (2008) revealed that the value of the residential property would be higher if it was in a gate-guarded locality with a landscape compound. Home buyers grade a residential property good or bad on the basis of factors like pollution, cleanliness and safety (from crime) and consider these factors significant while evaluating a housing unit (Chapman & Lombard, 2006; Tan, 2011). One of Tan's study (2011) suggested that affluent home buyers considered some intangible benefits like an infrastructure suitable to the lifestyle of house buyers, a feeling of harmony with the surroundings and a sense of security. According to studies by Hunter (1985), Lang and Le Furgy (2007), it gives dwellers good peace of mind if they live in the gate-guarded residential area and they can pay more for that. Similarly, home buyers who purchase homes for investment also prefer to buy a home a gate-guarded housing estate. Tan (2010) reported in a study that a home in a gated and guarded neighbourhood reflects the owner's income and status. Need for differentiation and elite image, motivate home buyers to prefer gated and guarded community to purchase a home. Residential property buyers, while evaluating alternatives, consider ecological friendliness and accessibility (Tan, 2012). According to Ricardo *et al*. (2010), the importance of evaluation criteria changes according to the stage of life cycle. For example, a single working home buyer would prefer a location with better access to job opportunities, cultural offers and services; whereas, buyers who have young children might prefer a location that has a better natural environment. Kueh and Chiew (2005) revealed that for residential property buyers, the price was the most important factor. Apart from price, location, house amenities, security, developer's image and community amenities were also rated important factors. It was also found that preference for housing unit might vary from group to group like single and married reported different preferences from widowed or divorced. The location choice decision includes variables like accessibility, environmental amenities and space (Fujita, 1989 as cited in Hurtubia *et al.*, 2010). Accessibility affects the cost of travel that household members have to do in different locations in the city. Environmental amenities consist of the level of economic activities like education, service, industry, etc. It was confirmed in a study by Daly *et al.* (2003) that home buyers in the UK, Australia and Ireland considered location very important while buying a residential property. The distance of housing unit from shops, school, hospital, workplace and the central business district is given high importance while making a buying decision. Karsten (2007) concluded that for the home buyers who don't want to spend too much time in travelling, distance from the workplace is highly important. The structure of the house that includes the size of the living and dining rooms, constructed area and number of bedrooms and bathrooms, is also one of the criteria which affects home buyers' assessment of the property (Arimah, 1992; Fierro *et al.*, 2009; Laakso & Loikkanen, 1995; Opoku & Muhmin 2010; Tiwari & Parikh, 1998; Tse & Love, 2000; Wilhelmsson, 2000). Features of the residential property like the design, construction quality, exterior and interior design influence individual's home-buying decision (Adair *et al.*, 1996; Daly *et al.*, 2003; Opuku & Abdul-Muhmin, 2010; Sengul, Yasemin, & Eda, 2010). Several researchers have reported that these house features do affect the buying decision (El-Nachar, 2011; Haddad, Judeh, & Haddad, 2011; Sengul *et al.*, 2010). In a study, Fortin, Hill, and Huang (2014) concluded that superstition also affects the buying decision in the purchase of a residential property. They found that Chinese superstition plays a role in home buying in the North American market. Even the buyers who don't believe in *feng shui* do consider it while buying a home because that might affect the resale price. The consideration for house number was also accepted by home respondents. In a survey by Housing.com (2015), it was found that most of the Indian home buyers look for *vastu* complaint homes while purchasing a house. Anderson and Crocker (1971) reported that the pollution level of the area also does affect the home-buying decision.

## RESEARCH METHODOLOGY

It was a quantitative study in which data were collected through structured and non-disguised questionnaire. During the literature review, the factors were identified which were frequently found significant in the residential property buying in the previous studies. These factors were then included in the questionnaire, which was used to collect the data from respondents. Method for data collection used was - personal interview and mail questionnaire. Respondents were selected through judgment sampling. Total 250 respondents were selected as the items in the questionnaire were 18. Out of 250 questionnaires, 30 were rejected on the basis of completeness and legibility. The data collected through the questionnaire survey were statistically analysed with SPSS software.

## OBJECTIVES OF THE STUDY

The study attempted to:

- Identify the importance of factors that home buyers consider while purchasing (evaluating alternatives) a home.
- Categorize the factors that home buyers consider while making a buying decision.

## ANALYSIS AND DISCUSSION

As mentioned earlier, variables that were selected for the study are:

1. Location
2. Proximity to amenities
3. Appearance
4. Interior
5. Well built
6. Locality
7. Ventilation
8. Price range
9. Availability of loan
10. Accessible garage
11. Fire resistant
12. Power supply
13. Water supply
14. Maintenance cost
15. Developer's reputation
16. Vastu compliance
17. House number
18. View from house

Respondents were asked to mark the level of importance of the selected variables while purchasing a residential property. A five-point scale was used for this where 5 indicated extremely important and 1, not at all important. This implies that a high mean score reports a high level of importance of the variable. Table 1 shows the descriptive of these selected variables (descending order of mean values). According to mean values, the most important variables are – "price falling within buying capacity" and availability of home loan. The other important variables are – fire resistance and well built. The least important variables that are considered by home buyers are the superstitious factors – vastu compliance, house no. and interior. But the mean value is very close to 3, so even these cannot be ignored as 3 indicated "important" on the scale used for collecting data.

**Table 1: Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Price range | 220 | 2 | 5 | 4.25 | 0.768 |
| Availability of loan | 220 | 2 | 5 | 4.2 | 0.75 |
| Fire resistant | 220 | 2 | 5 | 3.8 | 0.87 |
| Maintenance cost | 220 | 2 | 5 | 3.75 | 0.77 |
| Well built | 220 | 2 | 5 | 3.7 | 0.901 |
| Location | 220 | 2 | 5 | 3.68 | 0.843 |
| Ventilation | 220 | 2 | 5 | 3.65 | 0.734 |
| Developer's reputation | 220 | 2 | 5 | 3.65 | 0.727 |
| Proximity to amenities | 220 | 2 | 5 | 3.63 | 0.638 |
| Accessible garage | 220 | 1 | 5 | 3.48 | 0.743 |
| Locality | 220 | 2 | 5 | 3.44 | 1.043 |
| View from house | 220 | 2 | 5 | 3.24 | 0.783 |
| Power supply | 220 | 1 | 5 | 3.16 | 1.012 |
| Water supply | 220 | 1 | 5 | 3.12 | 1.042 |
| Appearance | 220 | 2 | 5 | 3.02 | 0.941 |
| Vastu compliance | 220 | 2 | 5 | 2.95 | 0.875 |
| House no. | 220 | 1 | 5 | 2.95 | 1.247 |
| Interior | 220 | 2 | 5 | 2.9 | 0.835 |
| Valid N (listwise) | 220 | | | | |

**Table 2: KMO and Bartlett's Test**

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .617 |
|---|---|---|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 3618.554 |
| | Df | 190 |
| | Sig. | .000 |

A principal component factor analysis was done to explore the inter-relationship among responses for the variables and find whether there is a structure of concern among the variables taken in the study. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (Table 2) was .617. It suggests the sample size is sufficient for factor analysis. To identify the cluster of related responses and determine the factors to be rotated, the eigen-value criterion of more than or equal to 1 was taken. Total variance explained was found 78.19% (Table 3) that is statistically significant (Bajpai, 2011).

Factor analysis results suggest that the variables can be categorized into six categories. Table 4 shows the rotated component matrix that in which only the highest factor loading value is shown.

Variables related to the construction quality – "well built", "ventilation", "fire resistant" and the "reputation of the developer" are having highest factor loading values for the first factor that are 0.916, 0.931, 0.829 and 0.924, respectively. This factor can be named as the construction quality factor.

Furthermore, another factor that results is – the proximity to basic facilities and the neighbourhood. The variables having the highest loading value in this category are – location, proximity to amenities, locality and accessible garage with the factor loading values 0.914, 0.765, 0.752 and 0.715.

A third factor is being formed consisting of the variables related to appearance. These are appearance, interior and view from the home. These have factors loading values of 0.882, 0.812 and 0.677.

The financial variables are falling into one category and these are: price, availability of home loan and maintenance cost.

"Vastu compliance" and "house no." are forming a factor with highest factor loading value. This factor should be named the superstitious or belief factor.

"Power supply" and "water supply" are having the higher factor loadings for the last factor. This group of variables should be named as the supplies factor.

**Table 3: Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 4.499 | 22.495 | 22.495 | 4.499 | 22.495 | 22.495 | 3.995 | 19.973 | 19.973 |
| 2 | 3.257 | 16.283 | 38.779 | 3.257 | 16.283 | 38.779 | 2.754 | 13.768 | 33.741 |
| 3 | 2.656 | 13.279 | 52.058 | 2.656 | 13.279 | 52.058 | 2.518 | 12.591 | 46.332 |
| 4 | 2.242 | 11.210 | 63.268 | 2.242 | 11.210 | 63.268 | 2.394 | 11.970 | 58.302 |
| 5 | 1.738 | 8.690 | 71.958 | 1.738 | 8.690 | 71.958 | 1.996 | 9.979 | 68.281 |
| 6 | 1.247 | 6.236 | 78.194 | 1.247 | 6.236 | 78.194 | 1.983 | 9.913 | 78.194 |
| 7 | .944 | 4.720 | 82.914 | | | | | | |
| 8 | .671 | 3.356 | 86.270 | | | | | | |
| 9 | .595 | 2.977 | 89.246 | | | | | | |
| 10 | .540 | 2.701 | 91.947 | | | | | | |
| 11 | .417 | 2.084 | 94.032 | | | | | | |
| 12 | .276 | 1.381 | 95.413 | | | | | | |
| 13 | .208 | 1.040 | 96.453 | | | | | | |
| 14 | .176 | .881 | 97.334 | | | | | | |
| 15 | .150 | .752 | 98.086 | | | | | | |
| 16 | .130 | .651 | 98.736 | | | | | | |
| 17 | .096 | .481 | 99.218 | | | | | | |
| 18 | .072 | .358 | 99.576 | | | | | | |
| 19 | .053 | .264 | 99.840 | | | | | | |
| 20 | .032 | .160 | 100.000 | | | | | | |
| Extraction Method: Principal Component Analysis. | | | | | | | | | |

**Table 4: Component Matrix**

| | Component | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Ventilation | .931 | | | | | |
| Developer's reputation | .924 | | | | | |
| Well built | .916 | | | | | |
| Fire resistant | .829 | | | | | |
| Location | | .914 | | | | |
| Proximity to amenities | | .765 | | | | |
| Locality | | .752 | | | | |
| Accessible garage | | .715 | | | | |
| Appearance | | | .882 | | | |
| Interior | | | .812 | | | |
| View from house | | | .677 | | | |
| Availability of loan | | | | .914 | | |
| Price range | | | | .862 | | |
| Maintenance cost | | | | .642 | | |
| House no. | | | | | .954 | |
| Vastu compliance | | | | | .948 | |
| Power supply | | | | | | .850 |
| Water supply | | | | | | .838 |
| Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. | | | | | | |
| a. Rotation converged in 8 iterations. | | | | | | |

## CONCLUSION

The financial factors – price range and availability of home loan – were found to be most important by home buyers. The financial or economic factors were followed by construction quality (as used "well built" in questionnaire), location, developer's reputation, ventilation and proximity to amenities on the basis of importance for the home buyers. The belief factors – vastu compliance and house no. are having the least mean values – 2.9, but still, values are very close to 3 which reflected "important" on the scale used. The mean values of most of the variables (except 3) are above 3. It suggests that the variables taken for the study from the available literature are quite significant for home buyers while purchasing a home. Current study has used exploratory factor analysis approach and should be followed by a study using confirmatory factor analysis approach.

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