

An empirical study to Understand the Factors that Influences Consumer Buying Behavior in Organized Housing Projects with Special Reference to Delhi-NCR.

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Abstract

Indian housing sector is growing at a very rapid rate. There is a great demand for organized houses. This study takes up the question of buying behavior and the reason for the preference of Housing Projects in a wide context. It tries to identify the existing market structure for the product and the factors influencing the customers to buy Housing projects as well as to analyze the purchase behavior of customers in preferring the choice of a House. To prepare an effective marketing strategy, a company must do competitor analysis, pest analysis, value chain analysis, swot analysis as well as its potential and prospect customer. This is especially necessary in a developing economy because sales can be gained only by winning them away from competitor's offerings. The marketing activities through sales promotion and social media tactics has increased significantly in promoting sales and preparing the ground for future expansion. The use of social media sites as part of a company's

marketing strategy has increased significantly in the past couple of years. The study has used the primary data to analyze the significant factors through ANOVA, and Factor analysis which differ across different demographic variables such as age, income, education, occupation, gender & lifestyle.

Keywords: Organized Housing, Marketing Strategy, prospective customer, social media

INTRODUCTION

Consumer behavior is often defined to include the acquisition and use of goods and services by ultimate consumers (Jacoby, 1975, 1976). It is the study 'of when, why how and where people do or do not buy a product'. Advancement in science and technology has offered man – equipment's, machineries and apparatus which have made life more comfortable and enjoyable. Television, Washing machines, Refrigerators, Microwave ovens, cell phones, Laptops, modernized houses are some of the innovations which provide comfort, luxury, information, entertainment and lifestyle.

Consumer buying behavior is influenced by various factors. Some of these factors are attitude, personality, values, lifestyle, learning, self-image, perception, brand image, quality, features, price, distance, sales promotion, reference group, awareness, unaware etc. Normally, when a consumer approaches a sales person for purchasing house, the salesman or service provider will show case only the products which are available during that time or they will show the catalogue, brochures

and prospectus. In case, if the customer likes any of the product they enquire in detail and if they are satisfied they look forward to purchase the product.

Gone are the days when a pure-bricks business model would have been thriving in current market scenario. Today the consumer uses internet to acquire information which enables him to compare products before making purchase decision. For example, if there are more than 5 varieties of products available and there are 10 companies who offers the similar products, the consumer does a comparative analysis as per his feasibility to act upon. However, Marketing stimuli act at each stage of the decision making process and become a major factor in consumer buying behavior and satisfaction. The initial problem recognition stage of the decision making process is a result of consumer's black box (Loudon, 1988) which includes the individuals attitudes, motivation, perceptions, personality, lifestyle and knowledge. Once the consumer recognizes his needs he looks for information from various sources. Foxall (2005) suggested the importance of the post purchase evaluation and that the post purchase evaluation is due to its influence on future purchase patterns.

The Real Estate sector is important to the Indian economy. In terms of employment generation, it is second only to the agricultural sector. The housing sector contributes nearly 5% to India's GDP. It is expected to rise to 6 per cent in the next five years.(www.customessays.net) Property markets in India are recovering faster than those in the US

and the UK. The sector is expected to attract around US\$ 12.11 billion of investments in the next five years. Residential space comprises almost 80% of the real estate developed in the country. There is a shortage of 22.4 million dwelling units according to the Tenth Five Year Plan. 80 to 90 million housing units will have to be constructed over the next 10 to 15 years to rectify this, with the majority of them for the middle- and lower-income groups. (www.ukessays.net) It is for this reason that residential properties in India, particularly in Mumbai and Delhi, are viewed as very good investments as per a study by Price Waterhouse Coopers (PWC) and Urban Land Institute, a global non-profit education and research institute.

In the 2009-10 budgets of Government of India, a tax holiday on profits was granted to developers of affordable housing (units of 1,000-1,500 sq ft). This exemption was instituted for projects that started from 2007-08 onwards with a deadline of completion of March 1, 2012. US\$ 207 million was also allocated to grant a 1% interest subsidy on home loans up to US\$ 20,691 with the caveat that the cost of the home should not be more than US\$ 41,382. This was expected to further help the housing sector. An apartment is a residential unit that forms a division of a building. It can be either owned or rented. Some people own their apartments together where each owns a part of the corporation which owns the flat. In condominiums, dwellers own the individual apartments and share the public environment.

NDA government's first budget has announced a mega project of developing 100 smart cities with modern amenities over the years. The project will be executed in PPP model and the government will contribute as viable gap funding (VGF) for the project. Greenfield projects are new factories, power plants or airports which are built from scratch while facilities which are modified or upgraded are called Brownfield projects. Smart City entails facilities like continuous water supply, modern sewerage system, solid waste management and infrastructure development among other advanced facilities. The total estimate of investment requirements for providing these services is estimated to be around Rs 7.5 lakh crore over 20 years which means it requires Rs 35,000 crore in a year.

Living in apartments is gaining popularity in India. Their allure lies in the convenience that they offer in terms of safety and security and maintenance of utilities like electricity and water. A central maintenance system obviates the need for hiring outside help for minor problems like leaking taps or electric short circuits. Stand-alone homes also require incurring additional costs like buying/leasing land, licensing, duties, etc. Apartments enable maximization of space utilization and reduce demand on public resources. People are also able to avail of additional amenities like gymnasiums, swimming pools, etc. at affordable prices. There is a gap in the literature, with regard to the value drivers that influence purchase decisions of residential property in the country. Similar studies exist for other countries but were found wanting

in the Indian context, especially when it comes to apartments. This paper examine and establish the factors of purchase decision and to what extent. This paper present the new insights in consumer decision making for housing, which will be very useful especially for builders and property developers who can use these findings for preparing their marketing strategy.

India is blessed with one of the fastest growing real-estate markets in the world. It is not only attracting domestic real-estate developers but also the foreign investors; particularly, the NRI investments in India have a bulk of their share in the Indian housing market. Despite the global economic gloom as a result of the sub-prime mortgage debacle and ensuing credit crunch, India's housing sector remains on course for yet another year of double-digit growth. The growth is attributed mainly to a large population base, rising income level, and rapid urbanization, according to research report, "**Indian Housing Sector Analysis**". In view with the ongoing development exhibited by the housing construction industry in India, it is expected that the sector will overtake other industrial sectors in terms of contribution to the GDP growth during the next few years. Presently, affordable housing is basically targeting the economically weaker class and low-income groups and constitutes majority of the Indian housing industry, both in terms of value and volume. Besides, luxury housing is also expected to witness significant growth in the coming years as this market segment is comparatively very small and possesses huge potential for further developments. Further,

FDI in India's booming real estate and housing market jumped 80 times between 2005 and 2010. Moreover, private equity funds are also venturing into development of housing projects. The fund houses are developing their own projects in order to endow better returns for their investors. Factors including steadily increasing life expectancy, lack of safety and security in urban areas and rising number of financially independent senior citizens have made senior citizens an ideal target customer for niche offerings by housing firms.(www.rncos.com)

Another external dimension in consumer decision making process is information search Rutz & Bucklin (2011) emphasized that in Internet paid search advertising, marketers pay for search engines to serve text advertisements in response to keyword searches that are generic (for example, 'hotels') or branded (for example, 'Hilton Hotels'). The results show that generic search activity positively affects future branded search activity through awareness of relevance. However, branded search does not affect generic search, demonstrating that the spillover is asymmetric. The findings have implications for understanding search behavior on the Internet and the management of paid search advertising. Taylor et al. (2011) presents research on Internet advertising, which examines consumer attitudes towards advertising presented on social media by users of those media. It was found that consumers reacted most favorably to advertising which was perceived as offering entertainment or information value. According to Edelman,

(2010) Digital marketers think of themselves as publishers of online content, recognize digital marketing as a means to acquire advocates for their brands and invest in ways such as monitoring consumers to gain knowledge about them in order to provide them with a satisfying sales experience.

This study is aimed at understanding buying behavior and preference of housing projects in a wider context. It tries to identify the existing market structure for the product. This study tries to identify the factors influencing the customers to buy Housing projects and to identify the customers brand preference as well as to analyze the purchase behavior of customers in preferring the choice of a House.

LITERATURE REVIEW

Several well-known models such as the AIDA model (Strong, 1925) or the frequently cited hierarchy-of-effects model (Lavidge & Steiner, 1961) have been developed that try to explain the consumers' persuasion process (Grabam & Havlena, 2007; Vakratsas & Ambler, 1999). The AIDA model is one of the first formal advertising models, attributed to E. St. Elmo Lewis in 1898 (Strong, 1925). AIDA is an acronym for Attention, Interest, Desire and Action. Lewis in his model suggest that salespeople have to attract attention, maintain interest and create desire and the resulting action in order to be successful. Some studies show the way in which advertising messages have an effect on consumers' perception (for example, Baumgartner & Sujan, 1997) or the brand. Numerous studies focus on which

advertising effort works when, for which consumer and under what circumstances (Ansari & Mela, 2003; van Heerde, Helsen, & Dekimpe, 2007). Housing is one of the most basic needs of the human beings, and it indicates the level of economic and social development of societies. Housing is one of the most basic needs of the human beings, and it indicates the level of economic and social development of societies.

Hansen (1959) indicates that for young people, whether married or not, housing costs and tenure are important factors in deciding where to live. People in the childrearing stage trade-off the quality of the residential environment against job accessibility (Kim et al., 2005). Karsten (2007) indicates that housing quality is composed of two major ingredients:(1) the site (accommodation for daily life); and (2) the situation (location) of the neighborhood. Ageing populations have substantial implications for the future of modern societies and there is a growing body of research on these issues (Bo'rsch-Supan et al., 2009). Policymakers should consider the substantial behavior of consumers and investors before implementing housing programs. Selective programs and subsidies affect both the financial position and the housing conditions of the household, as well as the equilibrium outcome in housing markets (Nordvik, 2006). (Nguyen, 2013; Oikarinen, 2012). Han (2010) found that households with lower income are more elastic to shocks in monthly cost that decreases their affordability of larger types of houses. Turner (2003) suggested that impact of house-price risk is

greater on low- and middle-income families and first-time homeowners than other groups. In this manner, one may speculate that the present housing policy in Turkey is consistent with the previous work. It is well-known that housing policy formulation is strongly associated with the careful understanding of the behavior of the housing market reflected by housing demand (Tiwari, 2000).

The housing collateral constraint gives information and conceives an association between the housing market and borrowing capacity that strengthens the response of housing demand to technology shocks in economies with more liberalized mortgage markets (Nguyen, 2013; Oikarinen, 2012). Han (2010) found that households with lower income are more elastic to shocks in monthly cost that decreases their affordability of larger types of houses. Income distribution has become less equal in most countries that has a significant impact on housing affordability and individuals' housing standards (Ball and Harloe, 2005). The amount of income also depends on several discourses such as rent regulations between individuals within countries and regional variations in house prices (Boelhower *et al.*, 2005).

There is legitimate concern that disparities in the availability of adequate housing will intensify problems of urban poverty, and will widen the gaps of economic and social stratification (Wang 2003). Housing has been recognized as one of the basic needs (along with food and clothing) of a household. At the macro level, the norm of one dwelling unit per household has been accepted by

the Indian planners. (This norm has been adopted by National Building Organisation in estimating the housing shortage in the country). At the scheme or programme level, the need for housing of a household seems to have been related to the income of the household rather than to its size. Further, the norms have in-variably been defined in terms of size and at times the tenure of the house.

A perusal of various programmes and schemes of the government of India reveals that the norms specified in these schemes are higher for high income groups and vice versa. (In the Low Income Group Housing Scheme of the government of India, the floor area is restricted to a size of 1200 sq feet. For the middle income groups the ceiling was higher at 2000 sq ft. Similar bias is seen in various schemes financed by Housing and Urban Development Corporation (HUDCO). The maximum permitted plinth area varies from 35 sq mt to 185 sq mt for household belonging to different income groups. A common feature of norms for all income groups is a 'pucca' structure and secure tenure. In case of the lowest income groups housing was provided mainly on rental basis whereas for other, ownership-supposedly a superior tenure-was prescribed.)

The key linkage among the different factors is that economic growth induces migration (both immigration and internal migration) to supply required labor force (Kuznets and Rubin 1954; Thomas [1954] 1973). That in turn creates demand for new housing construction

Chris Leinberger (2008) has inferred that new slums will form in the suburbs where large quantities of less desirable, larger, and less accessible homes are located

Objectives Of The Study

To study the factors influencing consumer buying behavior in housing projects.

To identify the customers brand preferences towards purchasing housing projects.

To find out the roles of various demographic factors in buying habits of consumers.

To examine the role of social media in the consumer decision making process.

Hypothesis

Ho1: There is no significant impact of Age and the factors considered for buying an organized house.

Ho2: There is no significant impact of the Gender and the factors considered for buying an organized house.

Ho3: There is no significant impact of the Education and the factors considered for buying an organized house.

Ho4: There is no significant impact of the Occupation and the factors considered for buying an organized house.

Ho5: There is no significant impact of the Income and the factors considered for buying an organized house.

Ho6: There is no significant impact of the

nature of family and the factors considered for buying an organized house.

Ho7: There is no significant impact of the Residential Location and the factors considered for buying an organized house.

Ho8: There is no significant impact of the Married Status and the factors considered for buying an organized house.

Ho9: There is no significant impact of the Family lifecycle stage and the factors considered for buying an organized house.

RESEARCH METHODOLOGY

Sampling Unit, Sample Selection and Sample Size

Sampling Unit : The population studied here is Indian customers in Delhi-NCR region. The sampling unit consist of the customers who intend to buy organized housing located in NCR-Delhi. Convenient sampling method was adopted to select the customers. There was no discrimination on the basis of Occupation, Age or Gender. The sample is broadly representative of the population for purposes of cross sectional survey.

Sampling Procedure: Since there are large numbers of buyer in NCR, we adopted convenient sampling method to select the customers. Sample selection was to ensure generalization and validity of findings.

Data Collection Method: The study is based on descriptive research design. The main instrument used to collect data was the well-

structured questionnaire. This structured questionnaire was pilot tested with 25 respondent's to ensure that the respondents understand the questions. The responses were further circulated to 273 respondents who were found near the housing projects site and looked as prospect buyers/ existing users.. The present study is based on both primary and secondary data.

Measurement Scales Employed

The overall satisfaction of the respondents towards the price of the product were being gauged by using a questionnaire containing close-ended question, which were designed to ascertain satisfaction level of the respondents using a five point Likert scale with following options: Highly Satisfied, Satisfied, Neither Satisfied nor Dissatisfied, Dissatisfied and Highly Dissatisfied. The respondents were asked to read the questions and then choose the option for their response. Questions were explained to them if the respondent does not understand a particular question. Prior to the final survey, the questionnaire was pre tested using a sample of respondents similar in nature to the final sample.

Research and Statistical Tools Employed

The research and statistical tools employed in this study are frequency analysis, factor analysis, ANOVA (Analysis of variance)& Regression Analysis. SPSS 16 was used to perform statistical analysis. The reliability of

the data was carried out by using Cronbach's Alpha Value. ANOVA was employed to find the association between demographic and relevant factor related with the organized and unorganized retails sector. The third major analysis carried out was a factor analysis to examine the underlying or latent factors related to housing sector. Both Bartlett's test of Sphericity and measure of sampling adequacy (MSA) were also carried out to ensure that the requirements of factor analysis were met.

ANALYSIS AND INTERPRETATIONS

The analysis of this data was divided into following section:

- (i) Demographic profile of Respondents: Table 1
- (ii) Reliability and Validity: Table 2
- (iii) Factor Analysis: Table 3 to 5
- (iv) ANOVA: Table 6

LIMITATIONS OF THE STUDY:

1. The survey was restricted to Delhi-NCR alone.
2. The data were collected from the existing user of the Product and the New Buyers from the site.

Table 1: Demographic profile of Respondents

<i>Variable</i>	<i>Characteristics</i>	<i>Frequency</i>	<i>Percent</i>
Age	Less than 30	54	19.8
	31- 35	62	22.7
	36-40	76	27.8
	Above 40	81	29.7
Gender	Male	182	66.7
	Female	91	33.3
Education qualification	Undergraduate	12	4.4
	Graduate	97	35.5
	Post Graduate	116	42.5
	Professional & Others	48	17.6
Occupation	Govt. Employee	44	16.1
	Private Employee	63	23.1
	Business	87	31.9
	Professional	41	15
	Housewife	23	8.4
	Agriculture	7	2.6
	Others	8	2.9
Monthly Income	Less than 10 lakhs/year	81	29.7
	10 – 20 Lakhs	131	48.0
	20-30 Lakhs	49	17.9
	Above 30 lakhs	12	14.4
Family Nature	Joint	103	37.3
	Nuclear	170	62.3
Residential Location	Rural	4	1.5
	Urban	238	87.2
	Semi-Urban	31	11.4
Marital Status	Single	69	25.3
	Married	204	74.7
Family Life Cycle	Bachelor /leaving alone	51	18.7
	Married without children	55	20.1
	Married with dependent children	132	48.4
	Married with independent child	35	12.8
	Others	1	0.4

The demographic profile of the respondents shows that the respondents above 40 years are 29.7 % followed by 35-40years 27.8%. This is the age group which represent majority of buyers for housing sector . There are 42.5% post graduate and 35.% are graduate, which indicate that educated persons are showing interest in this sector. They are decently employed (31.9% are businessman and 23.1% are in private employment) and have monthly income above 10 Lakhs (80%) which indicate that they also have the buying ability and can be the prospective customers. Further it is revealed that 74.7% of respondents are married and majority of them are having nuclear family (62.3%) and are from urban area (87.2%) This is ideal demographic profile who may prefer to buy from organized sector.

Table 2: Reliability Statistics

Cronbach's Alpha	No. of Items
.726	44

Reliability & Validity: Table 2 reflects the result of reliability analysis- Cronbach's Alpha Value. This test measured the consistency between survey scales. A Cronbach's Alpha score of 1.0 indicate 100 percent reliability. Cronbach's Alpha score were all greater than the Nunnally's (1976) generally accepted score of 0.7. The score was 0.708 for different

characteristic in the findings that indicates reliability of the survey.

Factor Analysis: To carry out the factor analysis, the suitability of data was examined with the help of Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMSA) and Bartlett's Test of Sphericity (Hair et al, 2006). Result of test are given in the table-3.

Table 3: KMO and Bartlett's Test- Organized sector

<i>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</i>		.708
<i>Bartlett's Test of Sphericity</i>	<i>Approx. Chi-Square</i>	3.337E3
	df	496
	Sig.	.000

Overall, the set of data meets the fundamental requirements of factor analysis satisfactorily (Hair et al, 2006). In analyzing the data given, the 14 response items for organized sector and 13 items for unorganized sector were subjected to a factor analysis using the principal component method. As in common practice, a Varimax rotation with Kaiser Normalization was performed to achieve a simpler and theoretically more meaningful factor solution. The Cronbach's alphas score for all the factors were above the cutoff point (0.7) recommended by Nunnally (1978).

Table 4: Total Variance Explained

<i>Component</i>	<i>Initial Eigenvalues</i>			<i>Extraction Sums of Squared Loadings</i>			<i>Rotation Sums of Squared Loadings</i>		
	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>
1	5.384	16.825	16.825	5.384	16.825	16.825	2.739	8.558	8.558
2	3.924	12.263	29.088	3.924	12.263	29.088	2.627	8.211	16.769
3	2.087	6.522	35.61	2.087	6.522	35.61	2.574	8.045	24.813
4	1.883	5.885	41.495	1.883	5.885	41.495	2.354	7.356	32.169
5	1.794	5.607	47.102	1.794	5.607	47.102	2.134	6.669	38.838
6	1.636	5.114	52.216	1.636	5.114	52.216	2.031	6.346	45.185
7	1.45	4.53	56.746	1.45	4.53	56.746	1.839	5.747	50.932
8	1.222	3.82	60.565	1.222	3.82	60.565	1.753	5.477	56.409
9	1.179	3.685	64.251	1.179	3.685	64.251	1.675	5.235	61.644
10	1.049	3.279	67.53	1.049	3.279	67.53	1.528	4.774	66.418
11	1.009	3.153	70.684	1.009	3.153	70.684	1.365	4.266	70.684
12	0.91	2.843	73.527						
13	0.882	2.756	76.283						
14	0.769	2.405	78.688						
15	0.736	2.298	80.986						
16	0.689	2.154	83.14						
17	0.634	1.98	85.121						
18	0.558	1.745	86.866						
19	0.509	1.59	88.456						
20	0.474	1.481	89.937						
21	0.46	1.436	91.374						
22	0.404	1.261	92.635						
23	0.382	1.194	93.828						
24	0.35	1.092	94.921						
25	0.285	0.892	95.813						
26	0.263	0.822	96.635						
27	0.251	0.783	97.418						
28	0.224	0.701	98.12						
29	0.208	0.649	98.768						
30	0.173	0.54	99.308						
31	0.128	0.4	99.708						
32	0.093	0.292	100						

Extraction Method: Principal Component Analysis.

Table 5: Rotated Component Matrix

	<i>Component</i>										
	1	2	3	4	5	6	7	8	9	10	11
Brand image of the builder	-0.068	0.006	0.224	0.063	0.012	-0.049	0.725	-0.1	-0.135	0.01	-0.16
Affordability of the project	-0.04	0.03	-0.087	0.137	-0.041	0.07	0.044	0.765	-0.13	0.297	-0.098
Schemes provided by the builder	0.1	0.211	0.194	0.072	0.261	0.12	-0.244	0.292	-0.166	0.581	-0.06
overall satisfaction of the project	-0.091	-0.15	0.055	-0.005	0.049	-0.009	0.029	0.768	0.322	-0.033	0.036
Discounts offered by Builder	0.114	0.032	-0.101	-0.139	-0.071	0.017	0.044	0.122	0.029	0.73	0.066
Timely delivery of the project	0.025	-0.004	-0.127	0.645	0.019	-0.054	0.371	0.3	-0.075	0.059	-0.25
Distance between metro and House	0.026	0.737	0.289	0.05	0.117	-0.161	-0.024	0.088	-0.243	0.118	-0.166
Distance b/w Railway St and House	0.193	0.842	0.157	-0.227	-0.037	-0.066	0.012	-0.121	0.004	-0.044	0.167
Distance B/w Bus stand and House	0.127	0.867	0.072	-0.111	-0.027	0.05	-0.003	-0.09	0.088	0.001	0.22
Distance from commercial Place	-0.257	0.032	-0.125	0.53	0.403	-0.015	0.002	-0.024	0.000	-0.14	0.159
Distance from School	0.08	0.216	0.279	0.054	0.2	-0.046	0.051	-0.141	-0.045	0.098	0.698
Variety in Houses	0.253	0.233	0.103	-0.026	0.506	0.115	0.172	0.108	0.075	-0.32	0.124
Information from TV	0.823	0.084	0.333	0.044	0.193	0.066	-0.01	-0.063	-0.079	0.01	0.055
information from Radio	0.749	0.118	0.035	-0.13	0.22	0.056	-0.04	0.011	0.139	0.063	0.006
Information from Brochure / Magazine	0.858	0.083	0.224	0.104	0.016	0.024	0.059	-0.078	-0.112	0.031	0.064
lucky Draw offers	0.272	0.033	0.039	0.097	0.72	0.003	-0.179	-0.061	-0.055	0.183	-0.048
Parking Facility	-0.007	-0.202	-0.143	0.501	0.194	0.168	0.4	0.029	-0.012	0.201	0.383
Features of the project	0.155	-0.142	-0.149	0.306	0.294	0.366	0.399	0.38	0.031	-0.111	0.014
Celebrity Endorser	0.049	0.001	0.406	-0.156	0.571	-0.036	0.204	0.185	-0.167	0.025	0.19
After sales service	-0.405	-0.203	0.036	0.224	0.149	-0.033	0.29	-0.108	-0.003	0.516	-0.004
No hidden cost	-0.089	-0.203	-0.07	0.229	0.344	0.005	0.249	-0.116	0.253	0.143	-0.572
Sales Promotion	0.156	-0.214	0.439	-0.003	0.531	0.001	0.015	-0.056	0.263	0.014	-0.095
Space, Ventilation & 24x7 water availability	0.06	-0.149	0.015	0.77	-0.08	-0.03	0.01	0.006	0.219	-0.054	-0.01
Innovative features of the project	0.054	0.061	-0.086	0.078	-0.063	0.186	0.688	0.211	0.248	-0.001	0.152
Reference given by friends	0.383	0.153	0.674	-0.251	0.034	0.089	0.012	0.035	0.142	-0.125	0.05
Information in Facebook	0.099	0.176	0.812	-0.098	0.159	0.065	0	-0.067	-0.107	0.076	0.135
Buyer review on Social Media	0.257	0.232	0.707	0.111	0.03	0.202	0.066	-0.016	0.033	-0.072	0.088
Club for recreation	0.052	-0.016	0.19	0.057	-0.114	0.853	0.104	0.025	-0.034	-0.016	0.109
swimming pool facility	0.075	-0.002	0.061	-0.146	0.18	0.854	0.057	0.036	-0.013	0.065	-0.076
games, banks, ATMS	-0.011	-0.264	0.019	0.387	-0.107	0.473	-0.174	0.012	0.172	0.036	-0.146
Appearance of the Flat	-0.031	-0.172	-0.008	0.413	-0.092	0.121	0.109	0.205	0.618	0.006	-0.061
value system of an individual	-0.002	0.04	0.016	0.034	0.047	-0.048	-0.02	0.017	0.818	-0.042	-0.07

It is clear from the factor loadings as highlighted in Table 5, that eleven factors emerged. These eleven factors represent different elements of Housing-Project form the underlying factors from the original 32 scale response items given.

Referring to the Table 5 above first factor represents elements directly related to information available on Facebook, reference given by friends, buyer review on social media and is named as “**Social Factor**”. The second factor is related to Distance b/w Metro & House, Distance b/w Railway Station and House, Distance b/w bus stand and house and school and is named as “**Distance factor**”. The third factor is related to information

from TV, Radio, Magazine & Brochure and is named as “**Communicator factor**”. Fourth factor is directly related to club for recreation, swimming pool facility, games, banks, ATMs and is named as “**Facility Factor**”. Fifth factor includes timely delivery of the project, space & parking and is named as “**Time Factor**”

The other factors are “**Promotion factor**” (lucky draw, sales promotion, celebrity endorser, variety in houses), **Value factor** (Appearance of the flat, value system of an individual), **External factor** (after sales service, distance from commercial place), “**Price Factor**”(Affordability of the project, satisfaction of the project)“**Brand value**” (Brand Image) and the last factor is “**Offer & Scheme**” (schemes and discounts).

Table 6: Computation of ANOVA

FACTORS	Age		Gender		Occupation		Education		Income		Family-nature		Res-Location		Marital-status		Lifecycle	
	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.
Brand image of the builder	3.004	0.031	3.087	0.08	1.632	0.139	3.191	0.024	5.042	0.002	0.522	0.471	2.771	0.064	2.457	0.118	1.584	0.193
Affordability of the project	2.077	0.104	3.003	0.084	2.227	0.041	1.231	0.299	0.902	0.44	1.753	0.187	2.478	0.086	0.033	0.857	0.701	0.552
Schemes provided by the builder	0.953	0.416	1.35	0.246	3.138	0.005	0.076	0.973	1.905	0.129	0.122	0.727	1.791	0.169	4.805	0.029	3.419	0.018
overall satisfaction from the project	1.205	0.309	2.807	0.095	2.119	0.052	3.353	0.02	1.205	0.308	2.593	0.108	3.867	0.022	2.78	0.097	2.055	0.107
Discounts offered by Builder	0.168	0.918	0.776	0.379	3.227	0.004	0.531	0.662	0.454	0.715	4.151	0.043	4.295	0.015	0.42	0.517	1.318	0.269
Timely delivery of the project	0.424	0.736	2.29	0.131	4.569	0.000	4.145	0.007	7.559	0.00	0.277	0.599	5.689	0.004	6.683	0.01	2.374	0.071
Distance between metro and House	3.354	0.019	0.346	0.557	5.463	0.000	2.472	0.062	1.453	0.228	3.181	0.076	2.877	0.058	0.041	0.839	9.894	0.000
Distance b/w Railway St and House	0.545	0.652	0.052	0.819	8.092	0.000	0.33	0.804	1.5	0.215	10.138	0.002	0.543	0.582	4.64	0.032	6.547	0.000
Distance B/w Bus stand and House	0.131	0.942	0.108	0.742	6.056	0.000	0.172	0.915	0.519	0.669	10.948	0.001	2.841	0.06	3.925	0.049	4.494	0.004

FACTORS	Age		Gender		Occupation		Education		Income		Family-nature		Res-Location		Marital-status		Lifecycle	
	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.
Distance from commercial Place	2.738	0.044	0.269	0.604	1.923	0.077	5.951	0.001	2.236	0.084	1.194	0.275	3.953	0.02	4.784	0.03	1.244	0.294
Distance from School	6.548	0.00	0.896	0.345	4.672	0.00	1.745	0.158	3.664	0.013	4.716	0.031	1.947	0.145	0.262	0.609	15.115	0.00
Variety in Houses	1.713	0.165	2.2	0.139	2.341	0.032	11.215	0.00	1.624	0.184	3.962	0.048	0.83	0.437	1.221	0.27	8.862	0.00
Information from TV	0.569	0.636	0.00	1	4.341	0.00	0.554	0.646	9.746	0.00	6.152	0.014	1.527	0.219	0.662	0.417	6.556	0.00
information from Radio	0.47	0.704	0.841	0.36	5.316	0.00	3.357	0.019	6.947	0.00	0.163	0.687	1.386	0.252	1.858	0.174	1.696	0.168
Information from Brochure / Magazine	3.363	0.019	2.176	0.141	5.72	0.00	1.661	0.176	3.372	0.00	8.13	0.005	1.788	0.169	0.235	0.628	8.533	0.00
lucky Draw offers	5.452	0.001	4.745	0.03	2.023	0.063	1.74	0.159	8.311	0.00	2.915	0.089	1.277	0.28	7.688	0.006	9.328	0.00
Parking Facility	0.104	0.957	2.671	0.103	3.511	0.002	15.019	0.00	6.813	0.00	0.649	0.421	1.98	0.14	4.072	0.045	3.024	0.03
Features of the project	1.651	0.178	4.523	0.034	6.237	0.00	3.911	0.009	3.629	0.014	0.205	0.651	1.601	0.204	0.843	0.359	1.096	0.351
Celebrity Endorser	0.514	0.673	4.586	0.033	0.886	0.506	0.388	0.762	3.29	0.021	2.126	0.146	2.467	0.087	0.271	0.603	3.809	0.011
After sales service	3.415	0.018	0.287	0.593	1.188	0.313	1.713	0.165	2.753	0.043	3.334	0.069	1.146	0.319	0.473	0.492	1.982	0.117
No hidden cost	4.124	0.007	0.595	0.441	7.713	0.00	1.747	0.158	3.635	0.013	1.073	0.301	15.179	0.00	2.671	0.103	2.668	0.048
Sales Promotion	3.914	0.009	16.543	0	1.601	0.147	3.741	0.012	1.49	0.218	2.709	0.101	6.856	0.001	0.021	0.884	3.421	0.018
Space, ventilation & 24x7 water availability	1.395	0.245	1.54	0.216	4.2	0.00	2.612	0.052	4.437	0.005	0.424	0.515	2.278	0.104	0.015	0.902	3.417	0.018
Innovative features of the project	2.232	0.085	0.011	0.916	1.962	0.071	6.729	0.00	2.663	0.048	0.04	0.841	5.376	0.005	1.642	0.201	0.868	0.458
Reference given by friends	2.52	0.058	11.733	0.001	3.784	0.001	2.488	0.061	0.897	0.443	10.756	0.001	0.196	0.822	5.22	0.023	2.332	0.075
Information in Facebook	3.268	0.022	9.457	0.002	5.003	0.00	0.592	0.62	2.918	0.035	14.716	0.00	0.662	0.516	0.05	0.824	6.448	0.00
Buyer review on Social Media	1.421	0.237	2.28	0.132	6.746	0.00	0.324	0.808	4.612	0.004	27.18	0.00	6.886	0.001	0.506	0.478	3.112	0.027
Club for recreation	3.854	0.01	0.945	0.332	5.65	0.00	2.075	0.104	3.895	0.009	3.947	0.048	5.753	0.004	0.013	0.91	1.005	0.391
swimming pool facility	6.433	0.00	0.925	0.337	2.95	0.008	4.17	0.007	3.056	0.029	2.577	0.11	5.309	0.005	4.045	0.045	3.261	0.022
games, banks, ATMS	9.994	0.00	3.554	0.06	3.525	0.002	4.151	0.007	1.261	0.288	1.236	0.267	2.116	0.123	0.515	0.473	1.175	0.319
Appearance of the Flat	5.067	0.002	7.029	0.008	2.133	0.05	3.683	0.013	1.677	0.172	0.331	0.566	1.093	0.337	4.299	0.039	1.943	0.123
value system of an individual	5.373	0.001	5.671	0.018	0.642	0.697	1.407	0.241	0.421	0.738	5.873	0.016	6.768	0.001	12.359	0.001	6.38	0.00

Hypothesis Testing

In order to find whether there is any impact of demographic elements on housing sector and to test hypothesis we carried out ANOVA on the customers responses . The results of ANOVA is given in the table 6 for the organized housing sector.

Table 6 indicate that age has significant impact on the factors considered for organized houses, hence we reject Ho1, where as gender and marital status of respondents show no significant impact therefore we accept Ho2 and Ho8 that there is no significant impact of the gender and marital status on the factors considered for buying an organized house . The occupation, education level and income of the respondents has significant impact on buying an organized house which leads us to reject Ho3 Ho4 and Ho5. Similarly it was found that the nature of family, residential location and the family lifecycle stage also has significant impact on buying an organized house which leads us to reject Ho6, Ho7 and Ho9.

It was found that if the source of information is from reference given by friends, information on Facebook or buyer review on social media have significant influence on consumer decision making. Buyers also look for various facility such as recreation club, swimming pool, banks, ATM before making buying decision. Distance from Metro, Railway Station, Bus Stand, Commercial place and school are also significant factors considered by the buyers for organized housing. Buyers also considers availability of parking facility

and lucky draw as well as information given on TV and radio another positive inducement given by the organized housing schemes.

CONCLUSION

Factor analysis have brought 11 factors representing various elements considered by the buyers for organized housing These factors are social factor, distance factor, communicator factor, facility factor , time factor, promotion factor, value factor, external factor, brand value, offer & scheme.

Gender and marital status of respondents have no significant impact on decision making whereas age occupation, education level and income of the respondents has significant impact on buying an organized house . It was also found that the nature of family, residential location and the family lifecycle stage also has significant impact on buying an organized house. Reference given by friends, information on Facebook or buyer review on social media have significant influence on consumer decision making, therefore housing company must have their presence on various social media platform. The companies must provide various facility such as recreation club, swimming pool, banks , ATM . Distance from Metro, railway, bus stand , commercial place and school are also significant factors considered by the buyers from organized housing. Buyers also considers availability of parking facility and lucky draw as well as information given on TV and radio another positive inducement given by the organized housing schemes.

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