An Evaluation Through Data Analysis And Interpretation Of Housing Satisfaction Among Occupants Of Lucknow City, Uttar Pradesh, India

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ABSTRACT

Housing is more than just bricks and mortar and it is the building block of a community and the community builds a common stock of social relationships. Residential satisfaction is a broad concept and is associated with multidimensional aspects including physical, social, and neighbourhood factors, as well as psychological and socio-demographic characteristics of the residents. This Present paper analyses housing satisfaction among occupants of Lucknow city aspects of basic amenities based on views of 450 respondents residing in houses constructed by Private Builder, Government agencies and Self-constructed houses in Lucknow city. Obtained data has been analyzed using various statistical tools and techniques. Results of the study reveal that there is a remarkable difference in level of housing satisfaction among occupants of three selected type of houses. Formulation of Rank order of Socio-Psychological problems and Comprehensive integrated approach to issues & challenges related to Housing occupants of Lucknow have also been analyzed under this paper. Satisfaction from neighbourhood is observed considerably more in occupants of houses constructed by Government companies in comparison to private builders in addition to self-constructed houses. Satisfaction from social infrastructure has also been also found remarkably high in occupants of houses constructed by government organizations, while pleasure from excellent, safety, layout and planning of homes has been found remarkably excessive in occupants of homes built by way of private builders and self-built homes.

Key Words: Housing Satisfaction, Psychological Environment, Neighbourhood Environment.

1. Introduction

Housing as a shelter has played an important role in human life since the dawn of civilization (Vasquez, 2012:76). Supplementary analgesics were added to other functions, such as social life, family bonds, community for comfort, and a revitalized spirit of authority, as society progressed. (Cho and Lee, 2010). Housing is more than just a structure made of bricks and mortar. It is the foundation of a community, and it is via this foundation that the group develops a shared stock of social interactions. The concept of housing does not refer to a person's residence It is a synthesis of the physical and social components that make up the housing system as a whole. (Francescato, Weidemann and Anderson, 1987). Homeowners can achieve a desired social status by interacting with others in a social relationship, which boosts self-esteem. (Rohe and Basolo, 1997). The housing industry must research and understand users' requirements and desires, as well as

the degree to which such needs and desires are met, through frequent performance assessments, in order to improve the quality of housing it creates. (Fatoye & Odusami, 2009). Teck-Hong (2011) holds a similar viewpoint, stating that examining elements that account for residents' contentment or dissatisfaction with their housing conditions is one feasible strategy to meet a household's housing demands. These perspectives highlight the importance of residential satisfaction research in the pursuit of housing that meets the occupants' everyday requirements, expectations, and preferences.

1.1 Need of Study

Homeowner happiness is influenced by a number of characteristics that can be divided into three categories: social, physical, and personal. The social environment is comprised of a person's social contacts, connections, and social activities. (Sirgy & Cornwell, 2002). Strong social networks within a society boost a person's level of satisfaction by providing support and social engagement and compensating for unfavourable environmental conditions (Brown et al., 2005; McCrea, Stimson, & Western, 2005; Grillo et al., 2010). One's level of residential satisfaction is influenced by his level of attachment to his neighbourhood (Aiello et al., 2010). Individuals get attached to their communities as a result of their social (i.e., relationships), economic (i.e., homeownership), and temporal (i.e., length of stay) investments (James et al., 2009). Residents are less likely to feel satisfied if they believe their town is hazardous (James et al., 2009; Diaz-Serrano & Stoyanova, 2010). Resident happiness is also linked to satisfaction with community services (Uzzell et al., 2002; Grzeskowiak et al., 2003; Potter & Cantarero, 2006).Various aspects of community layout and design (e.g. public open spaces, close proximity to services and amenities, building aesthetic pleasantness, and minimal density of housing) have been found to increase a person's attachment to the community, which in turn increases housing

satisfaction, whereas excessive and repetitive noise in housing complexes, as well as a lack of parks and ovals, have been found to reduce one's attachment to the community and reduce residential satisfaction (Adriaanse, 2007; Braubach, 2007; James et al., 2009; da Luz Reis & Lay, 2010). Residential satisfaction is also influenced by the community's neatness and cleanliness (Grzeskowiak et al., 2006; James et al., 2009).
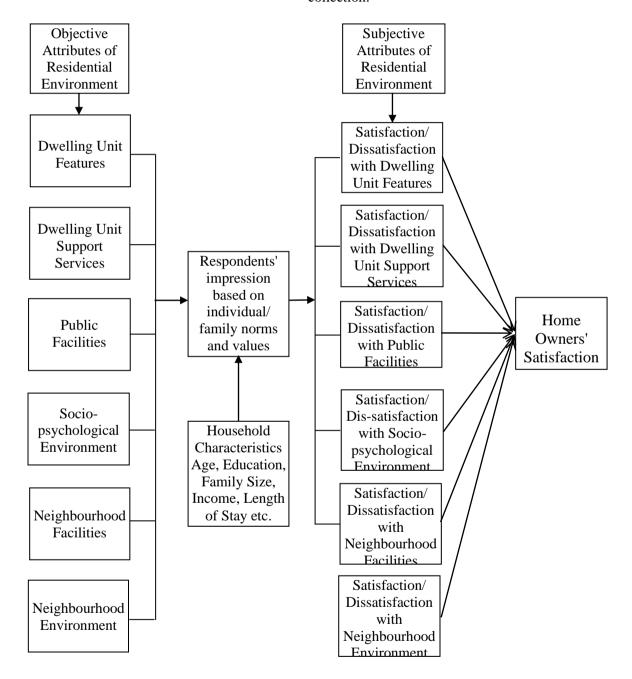
The stronger a person's attachment to a community grows over time, mainly as a result of community involvement and vast social networks (Brown et al., 2005). As a result, there is a higher degree of residential satisfaction (Fluery-Bahi et al., 2008). Long-term residents are more concerned with community improvement than new residents are with physical issues such as housing conditions (Potter & Cantarero, 2006).Residential satisfaction is also influenced by ethnicity (Lu, 1999). Studies of home satisfaction among different ethnic groups in better socioeconomic areas, on the other hand, have revealed no differences in the amount of satisfaction reported since higher income leads to tighter economic aspirations and commonalities among the groups. As a result, income level may have a larger impact on residential satisfaction than ethnicity (Chapman & Lombard, 2006).

The notion of a house is a collection of facilities for the exclusive use of a separate social group known as a household, and the set amenities included in this concept appear to alter in fairly predictable ways as the general living quality rises. Housing is an area that combines to various extents, including the following characteristics: Adequate access to water supply, sanitation, electricity, solid waste management, Drainage, parking; Good structural quality of housing; Good specification or quality building materials used in housing; Less Overcrowding; and Secure and Safe residential status.Social, Psychological and Physical Factors includes Community spaces, Health and medical facility, Education Facility, Mental Peace, social interaction, environmental aspects etc. Studies show that the impact on homeowners'

satisfaction of houses constructed by various agencies varies as per the socio-psychological and physical environment. To analyze the various issues on the social, physical, psychological aspects of the homeowner's satisfaction of the houses constructed by various agencies, i.e. private builders, government agencies and self-constructed houses, the researcher has chosen the Research topic "An Evaluation of Housing Satisfaction Among Occupants of Lucknow city, Uttar Pradesh, India."

2. METHODOLOGY

Descriptive and analytical research methodology is used in the present research, and data were collected using interview and observation methods of data collection.

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┌──────────────┐                                      ┌──────────────┐
│  Objective   │                                      │  Subjective  │
│ Attributes of│                                      │ Attributes of│
│ Residential  │                                      │ Residential  │
│ Environment  │                                      │ Environment  │
└──────────────┘                                      └──────────────┘
        │                                                     │
        ▼                                                     ▼
┌──────────────┐                                      ┌──────────────┐
│ Dwelling Unit│                                      │ Satisfaction/│
│   Features   │                                      │ Dissatisfaction│
└──────────────┘                                      │ with Dwelling│
                                                      │ Unit Features│
┌──────────────┐                                      └──────────────┘
│ Dwelling Unit│          ┌──────────────┐            ┌──────────────┐
│   Support    │          │ Respondents' │            │ Satisfaction/│
│   Services   │          │  impression  │            │ Dissatisfaction│
└──────────────┘          │   based on   │            │ with Dwelling│
                          │  individual/ │            │ Unit Support │
┌──────────────┐          │ family norms │            │   Services   │
│    Public    │────────▶ │  and values  │──────────▶ └──────────────┘
│  Facilities  │          └──────────────┘            ┌──────────────┐     ┌──────────────┐
└──────────────┘                 ▲                    │ Satisfaction/│     │     Home     │
                                 │                    │ Dissatisfaction│   │   Owners'    │
┌──────────────┐          ┌──────────────┐            │ with Public  │────▶│ Satisfaction │
│    Socio-    │          │  Household    │           │  Facilities  │     └──────────────┘
│ psychological│          │Characteristics│           └──────────────┘
│ Environment  │          │Age, Education,│           ┌──────────────┐
└──────────────┘          │ Family Size,  │           │ Satisfaction/│
                          │Income, Length │           │ Dis-satisfaction│
┌──────────────┐          │ of Stay etc.  │           │ with Socio-  │
│Neighbourhood │          └──────────────┘            │ psychological│
│  Facilities  │                                      │ Environment  │
└──────────────┘                                      └──────────────┘
                                                      ┌──────────────┐
┌──────────────┐                                      │ Satisfaction/│
│Neighbourhood │                                      │ Dissatisfaction│
│ Environment  │                                      │     with     │
└──────────────┘                                      │Neighbourhood │
                                                      │  Facilities  │
                                                      └──────────────┘
                                                      ┌──────────────┐
                                                      │ Satisfaction/│
                                                      │ Dissatisfaction│
                                                      │     with     │
                                                      │Neighbourhood │
                                                      │ Environment  │
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2.1 CONCEPTUAL FRAMEWORK

The conceptual model of the study has been found on the idea that homeowner satisfaction is a composite construct comprising the indices of satisfaction that respondents perceive with regard to dwelling unit features, dwelling unit support services, public facilities, social environment, neighbourhood facilities, and financial elements. According to the current study, the "residential satisfaction bundle" consists of two sheltered components. - (a) the dwelling unit features with 12 variables, and (b) dwelling unit support services with 11 variables; and four non-sheltered components- (i) public facilities with 8 variables; (ii) socio-psychological environment with 12 variables; (iii) neighbourhood facilities with 9 variables; and (iv) neighbourhood environment with 8 variables. These variables are:

2.2 SAMPLE FRAME

This study is based on the responses gathered from homeowners of three different types of construction agencies, i.e. Public agencies, Private builders and Self-constructed houses. The sampling method is used to select areas and respondents. 450 respondents were selected using a systematic method of non-proportionate stratified random sampling for each category of construction agency (150 each) and proportionate stratified random sampling within the category of construction agency.

3.DATA ANALYSIS AND INTERPRETATION:

After the data was collected and tabulated, they were analyzed logically and statistically. Various statistical tools like Percentages, Average, standard deviation, Chi-square test and t-test are employed.

Table-1 : Demographic Profile of Respondents

Age Group	26-35	36-45	46-55	56-65	Above 65	
No.	105	73	106	103	63	
Percentage	23.33	16.22	23.56	22.89	14.00	
Gender	Male			Female		
No.	217			233		
Percentage	48.22			51.78		
Education	Literate	H.School	Inter	Graduate	P.Graduate	Professional
No.	11	25	46	217	63	88
Percentage	2.44	5.56	10.22	48.22	14.00	19.56
Occupation	Business		Govt. Service		Pvt. Service	Others
No.	167		112		119	52
Percentage	37.11		24.89		26.44	11.56
Income	> 15000	15000-30000	30001 to 50000		50001 to 75000	<75000
No.	14	54	109		175	98
Percentage	3.11	12.00	24.22		38.89	21.78
Stay Period	>01 yr	1 to 3 yrs	3 to 5 yrs		5 to 10 yrs	< 10 yrs
No.	17	51	107		176	99
Percentage	3.78	11.33	23.78		39.11	22.00

Table 1 represents the distribution of respondents as per their demographic status. It shows that 23.56% of respondents belong to 46-55 yrs. After that, 23.33% of respondents belong to the age group of 26-35 yrs., 22.89% respondents belong to the age group of 56-65 yrs., 16.22% of respondents belong to the age group of 36-45 yrs., and 14.00% respondents belong to above 65 yrs. age group. Of these respondents, 51.78% are female, whereas 48.223% are male.

This table reveals that a maximum of 48.22% of respondents are graduates whereas 19.59% of respondents are professionals, 14.00% respondents are

Postgraduate, 10.22% of respondents are intermediate, 5.56% of respondents are high school, and a minimum of 2.44% of respondents are only literate.

Table 1 shows that the maximum occupation of 37.11% of respondents is business whereas 26.44% of respondents are serving in the private sector, 24.89% of respondents are serving in the government sector, and 11.56% of respondents are in other businesses, e.g. pensioners, freelancers etc. It also reveals that 38.89% of respondents have a monthly income of Rs. 50001 to 75000, whereas the monthly income of 24.22% respondents is Rs. 30001 to 50000, monthly income of 21.78% respondents is above 75000, monthly income of 12.00% respondents is Rs.15000 to 30000, and monthly income of 3.11% respondents is less than Rs. 15000.

If we look at the distribution of respondents as per their period of stay, it reveals that 39.11% respondents are staying since 05 to 10 yrs, whereas 23.78% respondents are staying for more than 03-05 yrs, 11.33% respondents are staying since 01 to 02 yrs, 22.00% respondents are staying since more than 10 yrs, and minimum 3.78% respondents are staying since less than one year.

3.1 Satisfaction from Psychological Environment

To assess the level of satisfaction among respondents from psychological environment, 11 variables had been included in the interview schedule (i.e. Feeling of ownership, Greenery, Isolation, Safety from fire & earthquake, Neighbours noise, Personal control on environment, Rush of people, Rush of traffic, Cost of the house, Traffic Noise, and Air pollution) and each variable was assigned with mark ranging from 1 to 5 depending on the response given by respondent as per his level of satisfaction differing from very low to very high.

3.2 Level of Satisfaction from Psychological Environment: Table 2 shows that 36.44% of respondents have a high level of satisfaction from the psychological environment, whereas 34.22% of respondents have medium and 29.33% of respondents have a low level of satisfaction from the psychological environment of their house.

Table-2: Distribution of Respondents as per Their Level of Satisfaction from Psychological Environment w.r.t. Construction Agencies

Satisfaction Level	Gvt. Agencies		Private Builders		Self-constructed		Total	
	No.	%	No.	%	No.	%	No.	%
Low	55	36.67	46	30.67	31	20.67	132	29.33
Medium	49	32.67	54	36.00	51	34.00	154	34.22
High	46	30.67	50	33.33	68	45.33	164	36.44
Total	**150**	**100.00**	**150**	**100.00**	**150**	**100.00**	**450**	**100.00**

$x^2 = **13.935$ (significant at df = 4 and p=0.05 (9.488)

This table also reveals that:

1. Out of total respondents who belong to houses constructed by Government agencies, 36.67% of respondents have a low level of housing satisfaction, whereas 32.67% of respondents have a medium level of satisfaction, and 30.67% of respondents have a high level of housing satisfaction w.r.t. psychological environment of their houses.

2. Out of total respondents who belong to houses constructed by private builders, 36.00% of respondents have a medium level of housing satisfaction, whereas 33.33% of respondents have a high level of satisfaction, and 30.67% of respondents have a low level of housing satisfaction w.r.t. psychological environment of their houses.

3. Out of the total respondents belonging to self-constructed houses, 45.33% of respondents have a high level of housing satisfaction, whereas 34.00% of respondents have a medium level of

satisfaction, and 20.67% of respondents have a low level of housing satisfaction w.r.t. psychological environment of their houses.

4. There is a remarkable difference in the level of housing satisfaction from psychological environment among respondents of various construction agencies (X^2=11.935)

Table-3: Significance of Difference in Level of Housing Satisfaction among Respondents of Different Socio-economic Status w.r.t. Psychological Environment of Their Houses

Socio-economic Variables	Distribution of Respondents						X^2 Value/ t-value
	No.	Av.Mks.	No.	Av.Mks.	No.	Av.Mks.	
Age	Young		Middle-aged		Old-aged		*12.241
	138	33.15	146	35.16	166	37.12	
Gender	Male		Female		Diff. in AM	Sd Error	**3.03
	217	33.79	233	36.64	2.85	0.94	
Education	Upto Inter		Graduate		PG & Prof.		*11.597
	82	32.15	217	35.42	151	36.74	
Family Occ.	Business		Govt. Service		Pvt. Service	Other	*13.708
	167	36.01	112	32.20	119	36.26	52	37.21	
Family Income	Middle		upper-middle		Upper		*11.463
	113	36.75	159	35.29	178	32.89	
Period of Stay	Short		Average		Long		**13.476
	131	33.00	167	35.39	152	37.08	

Note: *=significant at p=0.05, **=significant at p=0.01, ***=significant at p=0.001.

Table 3 reveals that:
1. There is a highly significant difference in the level of housing satisfaction among respondents of different gender (t-value=3.3) and period of stay (X^2-value=13.476) w.r.t. psychological environment of their houses.
2. There is a significant difference in the level of housing satisfaction among respondents of different age-group (X^2-value=12.241), educational status (X^2-value=11.597), household business (X^2-value=12.592), and different income group (X^2-value=11.463) w.r.t. psychological environment of their houses.

3.3 Satisfaction from Neighbourhood Environment

To analyze the level of housing satisfaction related to the neighbourhood environment of the homeowners of the houses constructed by various construction agencies, the researcher had collected information from respondents on the level of satisfaction from various aspects of the neighbourhood environment and analyzed the impact of various demographic variables as well as the type of construction agency, on level of housing satisfaction related to neighbourhood environment of the homeowners. For this, marks were calculated as per response given by respondents for each variable of neighbourhood environment and accordingly, respondents were categorized into three groups (i.e. Low, Medium and High) as per total marks obtained.

Table-4: Distribution of Respondents as per Their Level of Satisfaction from Neighbourhood Environment w.r.t. Construction Agencies

Satisfaction Level	Government Agencies		Private Builders		Self-constructed		Total	
	No.	%	No.	%	No.	%	No.	%
Low	51	34.00	54	36.00	34	22.67	139	30.89
Medium	58	38.67	51	34.00	49	32.67	158	35.11
High	41	27.33	45	30.00	67	44.67	153	34.00

| Total | 150 | 100.00 | 150 | 100.00 | 150 | 100.00 | 450 | 100.00 |

x^2 = **13.556 (significant at df = 4 and p=0.01 (13.277)

Table 4 shows that 35.11% of respondents have a medium level of satisfaction from the neighbourhood environment, whereas 34.00% of respondents have high and 30.89% of respondents have a low level of satisfaction from the neighbourhood environment of their house. This table also reveals that there is a highly significant difference in the level of housing satisfaction from neighbourhood environment among respondents of various construction agencies (X^2=13.556)

Table-5: Significance of Difference in Level of Housing Satisfaction among Respondents of Different Socio-economic Status w.r.t. Neighbourhood Environment of Their Houses

Socio-economic Variables	Distribution of Respondents						X^2 Value/ t-value
	No.	Av.Mks.	No.	Av.Mks.	No.	Av.Mks.	
Age	Young		Middle-aged		Old-aged		**13.298
	138	23.52	146	25.52	166	26.74	
Gender	Male		Female		Diff. in AM	Sd Error	**2.71
	217	24.30	233	26.33	2.0.	0.75	
Education	Upto Inter		Graduate		PG & Prof.		*11.527
	82	22.94	217	25.45	151	26.52	
Family Occ.	Business		Govt. Service		Pvt. Service	Other	10.465
	167	25.58	112	27.29	119	24.00	52	23.57	
Family Income	Middle		upper-middle		Upper		*11.561
	113	26.85	159	25.59	178	24.19	
Period of Stay	Short		Average		Long		**12.707
	131	23.58	167	25.63	152	26.58	

Note : *=significant at p=0.05, **=significant at p=0.01, ***=significant at p=0.001.

Table 5 reveals that:

1. There is a highly remarkable difference in the level of housing satisfaction among respondents of different age-group (X^2-value=13.298), gender (t-value=2.71) and period of stay (X^2-value=12.707) w.r.t. neighbourhood environment of their houses.
2. There is a remarkable difference in the level of housing satisfaction among respondents of different educational statuses (X^2-value=11.527) and different income groups (X^2-value=11.463) w.r.t. neighbourhood environment of their houses.
3. There is no remarkable difference in the level of housing satisfaction among respondents of different household businesses (X^2-value=10.465), w.r.t. neighbourhood environment of their houses.

3.4 Satisfaction from Dwelling Unit Features

To analyze the level of housing satisfaction related to Dwelling unit features of the homeowners of the houses constructed by various construction agencies, the researcher had collected information from respondents on the level of satisfaction from various aspects of Dwelling unit features and analyzed the impact of various demographic variables as well as the type of construction agency, on level of housing satisfaction linked to Dwelling unit features of the housing. For this, marks were calculated as per response given by respondents for each variable of dwelling unit features and accordingly, respondents were categorized into three groups (i.e. Low, Medium and High) as per total marks obtained.

Table-6: Distribution of Respondents as per Their Level of Satisfaction from dwelling unit features w.r.t. Construction Agencies

Satisfaction Level	Government Agencies		Private Builders		Self-constructed		Total	
	No.	%	No.	%	No.	%	No.	%
Low	56	37.33	42	28.00	30	20.00	128	28.44
Medium	49	32.67	53	35.33	51	34.00	153	34.00
High	45	30.00	55	36.67	69	46.00	169	37.56
Total	**150**	**100.00**	**150**	**100.00**	**150**	**100.00**	**450**	**100.00**

x^2 = *13.254 (significant at df = 4 and p=0.05 (9.488)

Table 6 shows that 37.56% of respondents are having high level of satisfaction from dwelling unit features, whereas 34.00% of respondents are having medium and 28.44% of respondents are having low level of satisfaction from dwelling unit features of their house. This table also reveals that there is remarkable difference in level of housing satisfaction from dwelling unit features among respondents of various construction agencies (X^2=13.254)

Table-7: Distribution of Respondents as per Their Level of Satisfaction from Dwelling Support Services w.r.t. Construction Agencies

Satisfaction Level	Government Agencies		Private Builders		Self-constructed		Total	
	No.	%	No.	%	No.	%	No.	%
Low	42	28.00	56	37.33	67	44.67	165	36.67
Medium	48	32.00	51	34.00	52	34.67	151	33.56
High	60	40.00	43	28.67	31	20.67	134	29.78
Total	**150**	**100.00**	**150**	**100.00**	**150**	**100.00**	**450**	**100.00**

x^2 = **15.389 (significant at df = 4 and p=0.01 (13.277)

Table 7 shows that 36.67% of respondents are having low level of satisfaction from dwelling support services, whereas 33.56% of respondents are having medium and 29.78% of respondents are having high level of satisfaction from dwelling support services of their house. This table also reveals that there is highly remarkable difference in level of housing satisfaction from dwelling support services among respondents of various construction agencies (X^2=15.389)

Table-8: Distribution of Respondents as per Their Level of Satisfaction from Public Facilities Available in Housing Area w.r.t. Construction Agencies

Satisfaction Level	Government Agencies		Private Builders		Self-constructed		Total	
	No.	%	No.	%	No.	%	No.	%
Low	40	26.67	56	37.33	66	44.00	162	36.00
Medium	49	32.67	55	36.67	53	35.33	157	34.89
High	61	40.67	39	26.00	31	20.67	131	29.11
Total	**150**	**100.00**	**150**	**100.00**	**150**	**100.00**	**450**	**100.00**

x^2 = **17.780 (significant at df = 4 and p=0.01 (13.277)

Table 8 shows that 36.00% of respondents are having low level of satisfaction from Public facilities available in Housing area, whereas 34.89% of respondents are having medium and 29.11% of respondents are having high level of satisfaction from Public facilities available in Housing area. This table also reveals that there is highly remarkable difference in level of housing satisfaction from dwelling support services among respondents of various construction agencies (X^2=17.780)

Table-9: Distribution of Respondents as per Their Level of Satisfaction from Neighbourhood Facilities w.r.t. Construction Agencies

Satisfaction Level	Government Agencies		Private Builders		Self-constructed		Total	
	No.	%	No.	%	No.	%	No.	%
Low	47	31.33	55	36.67	66	44.00	168	37.33
Medium	48	32.00	53	35.33	55	36.67	156	34.67
High	55	36.67	42	28.00	29	19.33	126	28.00
Total	**150**	**100.00**	**150**	**100.00**	**150**	**100.00**	**450**	**100.00**

x^2 = *11.798 (significant at df = 4 and p=0.05 (9.488)

Table 9 shows that 37.33% of respondents are having low level of satisfaction from neighbourhood facilities, whereas 34.67% of respondents are having medium and 28.00% of respondents are having high level of satisfaction from dwelling support services of their house. This table also reveals that there is remarkable difference in level of housing satisfaction from neighbourhood facilities among respondents of various construction agencies (X^2=11.798)

4. CONCLUSIONS

Results of the study reveal that:

- Approximately two-thirds (63.55%) of respondents have medium (34.22%) or low (29.33%) level satisfaction with the psychological environment of their house. There is a highly remarkable difference in the level of housing satisfaction from psychological environment among respondents of different gender and period of stay w.r.t. psychological environment of their houses. In contrast, a remarkable difference in the level of housing satisfaction was found among respondents of various construction agencies, different age-group, educational statuses, household businesses, and different income groups w.r.t. psychological environment of their houses.

- Approximately two-thirds (66.00%) of respondents have a medium (35.11%) or low (30.89%) level of satisfaction with the neighbourhood environment of their house. There is a highly remarkable difference in the level of housing satisfaction from neighbourhood environment among respondents of different construction agencies, different age-group, gender and period of stay w.r.t. neighbourhood environment of their houses. A remarkable difference in the level of housing satisfaction from neighbourhood environment was found among respondents of different educational statuses and different income groups. However, no remarkable difference in the level of housing satisfaction was found among respondents of different household businesses.

- Approximately two-thirds (62.44%) of respondents have medium (34.00%) or low (28.44%) level satisfaction with various aspects of the dwelling unit features of their houses. A remarkable difference in the level of housing satisfaction from dwelling unit features was found among respondents of various construction agencies.

- More than two-thirds (70.22%) of respondents have low (36.67%) or medium (33.56%) level satisfaction with various aspects of the dwelling unit support services of their house. The highly remarkable difference in housing satisfaction level from dwelling support services was found among respondents of various construction agencies.

- More than two-thirds (70.89%) of respondents have low (36.00%) or medium (34.89%) level satisfaction with various aspects of the public facilities available in a housing area. The highly significant difference in housing satisfaction level from dwelling support services was found among respondents of various construction agencies.

- Approximately three-fourths (72.00%) of respondents have low (37.33%) or

medium (34.67%) level satisfaction with the neighbourhood facilities available in a housing area. A critical contrast within the level of housing satisfaction from neighbourhood facilities was found among respondents of various construction agencies.

5. RECOMMENDATION

Various issues have been noted by analyzing homeowners' responses, which varied as per different demographic profiles and w.r.t. selected construction agencies. The challenges and solutions are interrelated in so far as social, psychological and built environments are concerned. The main recommendations from the study are as follows:

- Low level of housing satisfaction caused due to isolation can be reduced by promotion of socialization by providing suitable facilities within the housing areas along with enhancement of public spaces, community hall, common public meeting places, public library etc. for social and cultural events, arranging cultural activities, sports, occasional get together, joint celebrations of major social events like Deepawali, Eid, Christmas, Holi etc.
- Dissatisfaction caused due to a feeling of impersonalness can be eliminated by providing facilities for the development of belongingness, interaction and familiarity.
- Missed greenery can be eradicated by planting small trees and creating a terrace garden, kitchen garden, etc.
- Inconvenience caused due to personal control on the environment can be controlled by avoiding throwing garbage, removing encroachment, improving awareness about cleanliness, sanitation etc., among the house owners.
- Adequate provision of fire fighting system, quick and safe fire escape, retrofitting of

buildings for making earthquake-resistant can be made to eliminate panic caused by insecurity, fear and tension.
- Noise created by late-night parties/religious functions, children playing in & outside the house can also be reduced by making provision of properly designed community hall for functions, parties etc., and children's play facilities within the vicinity and educating residents to avoid noise.
- Appropriate supervision for the safety of children can avoid fear, worry and tension arising due to leaving children unattended.
- Air pollution can be reduced by implementing related laws and adequate maintenance of vehicles.
- Traffic congestion caused due to parking problems and narrowness of streets can be reduced by constructing multi-level parking, by covering the side drains and clearance of encroachment on the streets.
- The prevailing solid waste management system can be improved by making of adequately designed and placed garbage disposal facilities, daily facilities for garbage removal and educating residents to avoid throwing waste outside.
- The water supply system that creates inconvenience can be reduced by providing a sufficient water storage system at the ground and terrace levels to ensure undisturbed regular water supply safe drinking water by installing adequate apparatus.

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