

Full Length Research Paper

A study on determination of the factors affecting dwelling choice: Düzce Toki housing area, Turkey

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The aim of this study is to define the factors affecting the choice of dwelling and to analyse the effect of user properties. For this purpose, a questionnaire was conducted to 215 users chosen randomly in the dwelling built by Düzce TOKİ. The gained data were transferred to computer environment with SPSS 16.00 program, and factor and variance analyses was carried out. At the end of the factor analysis, 9 factors (insulation systems and exterior decoration design, dwelling economy, heating systems, accessibility, security systems, social interaction, and dwellings plan) and 29 variables that are effective on the choice of dwelling were defined. Also, some connections between the factors and the users' sexes, educational statuses, job statuses, monthly incomes, being tenants or homeowners, being from Düzce or not and having children or not were detected.

Key words: Dwelling, dwelling choices, dwelling satisfaction, TOKİ Houses, Düzce.

INTRODUCTION

The physical environment has changed rapidly with the industrial age, and this change is felt mostly in cities with the effects of immigrations. The need of sheltering has been one of the most important problems of cities with the effects of population. That problem has gained various dimensions, from providing proper and adequate residential areas to their being suitable for the users' social and demographic properties.

Dwelling is the first and the most important structure that provides people with shelter, protects them from external effects and enables them to live in safety (Erdoğan, 2009). Dwelling is an "internally experienced" life space and social event, which firstly appears as a geometrical shelter, and then is conceptualized as another spatial location with the people, time, items, etc. it takes inside, being covered with cultural, social and psychological meanings (Çubukçu, 2008). Tognoli (1987) defined dwelling as the most central place where people exist, experience important events and feel comfortable, close and warm. Dwelling is an expressional means reflecting an environment's primary and secondary

functions as the world view, value norms, life styles of a culture. Dwelling is a determining triangulation point in carrying out privacy conception, defending the domination borders, defining the personal space, keeping away from crowd, taking the interaction level under control, finding direction, defining a place (Sami, 2007). While dwelling is a basic need for a family, it is a phenomenon having economic and spatial content for the society (Tavukoğlu, 2008). According to Rapoport (1969), dwelling is formed as a result of large scale socio-cultural values.

Environmental designs can be different due to the technological, economical and social influences of different cultures (Özyılmaz, 2001). Oliver referred to the subject's socio-cultural feature when he said, "Every culture has a house form. This form meets the society's physical, social and psychological needs, and it is shaped by belief systems, status symbols, privacy and safety, economy, material resources, technology and climate conditions" (Erdoğan, 2009). Cooper (1975) forms a hierarchical order of the residential need by changing Maslow's (1970) hierarchy of human needs, in which physical needs are primary, protection need is secondary and others are afterwards in the environment and the society. According to this list, dwelling meets a human's needs of "shelter, safety, comfort, socialization and self

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expression, and aesthetic" (Kellekçi and Berköz, 2006).

The size of the dwelling and the number of its rooms; the efficiency of the dwelling's usable spaces and their usefulness (plan); the physical conditions of the house and the building; the building's being new, durable and well-kept; the efficiency of substructure (electricity, water, gas, canalization, cable TV, telephone, etc.); the condition of light and airiness; the condition of insulation and heating; the system of central heating and central hot water; the availability of doorman/warden; the availability of elevator in the multi-storey buildings; environmental arrangements; accessibility; sufficient security; the comfort of house and building; its having environmental quality factors affect the satisfaction from a dwelling in a positive way (Özgür, 2009; Koç, 2009).

Dwelling is a space which can not be isolated from its environment and considered apart from its environment, integrating with the physical and socio-cultural features of its environment (Rapaport, 1977). Dwelling environment is defined as a person's social and physical relationship especially with the complicated world around them. Dwelling environment is a fundamental living area in terms of the improvement of the general health of individuals/society, and meeting the needs of the inhabitants of dwelling and housing. Also, various needs resulting from dwelling and dwelling environment, taking place in the physical, psychological and socio-cultural environment, and the environment they take place affect the user satisfaction (Kellekçi and Berköz, 2006). The features of the dwelling environment are one of the most important indicators of life quality. The dwelling environments which are well arranged and planned both enhance the quality of life and persuade people to choose them to live there. As a result, the better a dwelling environment is planned, the more satisfaction about that environment arises (Türkoğlu et al., 2008).

There is a strong relationship between dwelling preference and dwelling satisfaction (Garling and Friman, 2002; Ge and Hokao, 2006). There are various researches especially about dwelling satisfaction by different disciplines. Kelekçi and Berköz (2006) examined the factors that enhanced the satisfaction of dwelling and environmental quality in Istanbul and detected some factor groups related to easy accessibility, variables of environmental quality, environmental safety, neighbourhood relations, view of dwelling environment and economical value. Türkoğlu et al. (2008), in the study he carried out to measure the life quality in Istanbul, showed that the dwelling settlements with medium density especially in the city centre, the easy transportation facilities and the qualified environmental arrangement enhanced the satisfaction and determined the preferences. Acar and Bekleyen (2008) showed that the size and the usage of the space and the density of users affected the user satisfaction. Berköz et al. (2009), in the study he carried out in the nine districts of Istanbul in the field of mass housing, he found that accessibility, environmental features, various recreation activities,

security, neighbourhood relationships, visual quality were the factors affecting dwelling satisfaction. Özgür (2009), in the study he carried out about dwelling satisfaction and dwelling mobility in the inner-city, he showed that "the usefulness and the efficiency of usable space of the dwelling, accessibility to the economic (working place and shopping) and socio-cultural (like school and health facilities) function areas, the security perception of the dwelling environment, the similarity of the district dwellers in terms of socio-economical, ethnical and demographical composition, the features of the social environment" enhanced the satisfaction. The study about user satisfaction carried out by Gür and Dostoğlu (2010) in the TOKİ housing, which were for low-income and high-income, in Bursa was examined within the scope of 7 factors: "social outfits and outdoor areas, environmental qualities, physical features of the dwelling, accessibility-transportation, security, climactic control of the dwelling and neighbourhood relationships" Social outfits and outdoor places, environmental qualities, physical features of the dwelling and accessibility-transportation defined the 47% of the variance.

The monotype, which ignores the social and cultural differences and psychological factors, and in which all of the needs of people are considered equally, is away from creating a satisfactory dwelling and environment for users. The people's, whose lifestyles are different, way of shaping their dwelling, in which they will lead their lives, should be different, too. In the studies like Amerigo and Aragones (1997), Garling and Friman (2002), Berköz and Kelekçi (2006), Kelekçi and Berköz (2006), Acar and Bekleyen (2008), Berkeci et al. (2011) and so on which were analysed within the scope of the study, especially dwelling satisfaction level was explored. These studies were based on the suggestions that were put forward after the analysis of the satisfaction level concerning the spaces that were designed and put into use after their implementations were finished. However, in this study, it is aimed that the factors that are effective for the users on the choice of dwelling should be determined, which must be done within the scope of survey studies, which are the first phase of designing process. In this context, the aim of the study is:

- (1) To determine the factors that affects the choice of dwelling
- (2) To explore the effects of user properties on the choice of dwelling.

MATERIALS AND METHODS

Study area

The study was carried out in the sites of Memursen Metek and Nalbantoğlu that were built by TOKİ in Düzce province. In the study area, there are totally 2922 dwellings, and nearly 11688 people. Also, in the study area, which is 168590 m², the population density is nearly 0.07 m² (person/m²) (Table 1).

Table 1. Study area some features.

| Study area | Total area (m ²) | Number of houses | Population |
|-------------|------------------------------|------------------|------------|
| Memursen | 116365 | 588 | 2352 |
| Metek | 16 650 | 1776 | 7104 |
| Nalbantoğlu | 35575 | 558 | 2232 |

The Mass Housing Administration (TOKİ) was founded as a finance institution. At the beginning, it directed 85% of the housing finance to cooperatives, and after 1988, it diminished its support to cooperatives and initiated many municipality projects and local practices. With the foundation of KİPTAŞ in 1994, the Administration started to directly build dwellings on its own lands and to work in cooperation with the private sector, instead of providing loan (Gür and Dostoğlu, 2010). While it built 43145 dwellings between the years 1984-2003, it built 527821 dwellings in 81 provinces and in 2254 construction sites, according to level of income (low, medium and high), between the years 2003-2012 (Anonymous, 2012).

Data acquisition

In this study, questionnaire method was used to obtain data. The questionnaire composed of 7 questions and 40 variables in total. In the first part of the questionnaire, which was composed of 2 parts, the demographical features of the users were explored with 6 questions, and in the second part, the factors affecting the choice of dwelling were explored with 40 variables.

For determination of the variables and the factors affecting the choice of dwelling, the variables used in the studies of Berköz and Kellekçi (2006), Je et al. (2007), Salleh (2008), Berköz et al. (2009), Özgür (2009), Türkoğlu (1997), Li and Chen (2011), Deker et al. (2011) and Koral and Aydın (2011) were evaluated. Firstly, the 70 variables used within the scope of these studies were determined. Then, clarity and grammaticalness of these variables were explained by 2 Turkish language teachers, and 10 of the variables were extracted from the questionnaire. Also, later on, these variables were explained by 6 experts and 20 variables were extracted from the questionnaire as they questioned a similar factor. In the evaluation of the variables, likert type scale was used. The scale has a range of “strongly disagree (1), disagree (2), neutral (3), agree (4), strongly agree (5)”.

In the determination of the sample size, 433 users were to be reached with 95% confidence level according to 11688 main mass and 0.05 sampling error. However, only 255 users participated to the study, and 40 questionnaires were extracted from evaluation because of being faulty. The sample, composed of 215 people, was moderately adequate according to Comrey and Lee (1992); according to Kline (1994), 200 people generally adequate; according to Brayman and Cramer (2001), the sample was adequate as it is 5 times higher than the variable number (Çokluk et al., 2010). The users of the questionnaire were chosen randomly and a face-to-face questionnaire was conducted between the months of February and April 2011.

Analysis

In this study, SPSS 16.00 programme was used to obtain the statistical analysis. Many variables affecting the choice of dwelling were separated as independent factors by being grouped according to their relationships between them with the explanatory factor analysis. For the factor analysis, firstly, the reliability of the data set

was evaluated using the “reliability analysis”. Then, the suitability of the data set for factor analysis was analysed using KMO (Kaiser-Meyer-Olkin) and Barlett tests. In the process of factor analysis, “Principal Component Analysis” was used as “Factor Extraction Technique”, and “Varimax” rotation technique was used as “Factor Rotation Method”. In the process of the analysis, the variances whose communality is below 0.50 were extracted from the analyses to enhance both KMO and the statistics of the explained variance value. In the determination of the significant factors, the factors whose eigenvalues were higher than 1 were considered to be significant. Also, the effects of the demographical features on the factors were evaluated using variance analysis. (Ural and Kilic, 2006)

RESULTS

User properties

60% of the users are male and 37% of them are between the ages of 31 to 40. Also, 35% of them are high school graduate, 37% of them are civil servant, and 37% of them work in the status of workers, the monthly income of 52% of them is 1000,00 to 2000,00 TL. 60% of the users have a dwelling and 54% of them are from Düzce. Also, 82% of them have children (Table 2).

Factors affecting the choice of dwellings

The suitability of the data set composed of 40 variables. The data obtained from the factor analysis was evaluated using the reliability analysis. For the additivity feature of the scale not to be corrupted, it was required that the correlation coefficients between the question and the whole should be negative and should not be higher than 0.25 value. According to that coefficient, 3 variables had to be extracted from the scale. The general reliability coefficient, which was calculated after 3 variables, was Alfa (α) = 0.89 and this value suggested that the scale was “highly reliable¹” (Kalaycı, 2009).

In the factor analysis, a high correlation between the variables is sought. In the factor analysis, p (sign) = 0.000<0.05 was obtained; that value showed that Barlett test was significant and there was a high correlation. KMO (Kaiser-Meyer-Olkin) coefficient was obtained as 0.77; that value showed that the size of the sample was “good”, namely, it was adequate.

¹0.00 ≤ α < 0.40 means the scale isn't reliable; 0.40 ≤ α < 0.60 means the reliability of the scale is low; 0.60 ≤ α < 0.80 means the scale is quite realiable; 0.80 ≤ α < 1.00 means the scale is highly reliable (Kalaycı, 2009).

Table 2. User properties.

| Properties | | Frequency | Percentage (%) |
|--------------------------------------|-------------------|-----------|----------------|
| Sex | Female | 86 | 40 |
| | Male | 129 | 60 |
| Age group | 20-30 | 71 | 33 |
| | 31-40 | 80 | 37 |
| | 41-50 | 47 | 22 |
| | 51> | 17 | 8 |
| Educational status | Primary school | 39 | 18 |
| | High school | 75 | 35 |
| | Vocational school | 22 | 10 |
| | Undergraduate | 64 | 30 |
| | Graduate | 15 | 7 |
| Job status | Civil servant | 80 | 37 |
| | Worker | 80 | 37 |
| | Retired | 15 | 7 |
| | Other | 40 | 19 |
| Income State (TL) | 1000 | 43 | 20 |
| | 1000-2000 | 112 | 52 |
| | 2000-3000 | 50 | 23 |
| | 3000 | 10 | 5 |
| The state of having an estate or not | Having estate | 129 | 60 |
| | Being tenant | 86 | 40 |
| Are you from Düzce? | Yes | 116 | 54 |
| | No | 99 | 46 |
| Do you have children? | Yes | 176 | 82 |
| | No | 39 | 18 |

At the end of the analysis, 29 variables affecting the choice of dwelling were detected and 9 factors were acquired. The contribution of these nine factors to the variance is 57%, and the factor loads change between 0.52 to 0.86. Also, according to the Cronbach alpha value, 6 factors are "quite reliable", while 3 factors are "highly reliable" (Table 3).

(1) **Factor I** explains 21% of the variance and contains 5 variables. This factor is about the insulation systems and the most effective variable is the presence of a sound insulation system in the dwelling.

(2) **Factor II** explains 7% of the variance and contains 4 variables. This factor is about the outdoor spaces and the most effective variable is the presence of playgrounds in the garden of the dwelling.

(3) **Factor III** explains 6% of the variance and contains 3 variables. This factor is about the economy of the

dwelling and the most effective variable is the fact that the dwelling should be economical.

(4) **Factor IV** explains 5% of the variance and contains 3 variables. This factor is about the heating systems and the most effective variable is the presence of a room heater/combi boiler in the dwelling.

(5) **Factor V** explains 5% of the variance and contains 4 variables. This factor is about accessibility and the most effective variable is the fact that the dwelling should be close to schools.

(6) **Factor VI** explains 5% of the variance and contains 3 variables. This factor is about the security systems and the most effective variable is the presence of a fire security system in the dwelling.

(7) **Factor VII** explains 4% of the variance and contains 3 variables. This factor is about the social interaction and the most effective variable is the neighbourhood relations in the apartment/site.

Table 3. Factor groups and items.

| Factor and item | Arithmetic average | Factor loading | Alpha | Arithmetic average | Variance (%) |
|--|--------------------|----------------|--------|--------------------|--------------|
| Factor 1: Insulation systems | | | | | |
| Heat insulation | 4.06 | 0.73 | | | |
| Central satellite, internet systems | 4.00 | 0.70 | | | |
| Sound insulation | 4.08 | 0.67 | 0.78* | 4.00 | 21 |
| Water insulation | 3.96 | 0.64 | | | |
| Fire insulation | 3.88 | 0.55 | | | |
| Factor II: Outdoor spaces | | | | | |
| The presence of parking lots | 3.78 | 0.69 | | | |
| The presence of parking garages | 3.73 | 0.67 | 0.68* | 3.87 | 7 |
| The presence outdoor sport fields | 3.94 | 0.58 | | | |
| The presence children's garden | 4.04 | 0.55 | | | |
| Factor III: Dwelling economy | | | | | |
| Easy payment | 3.98 | 0.81 | | | |
| The reliability of the foundation/institution/firm that built the dwelling | 4.02 | 0.75 | 0.76* | 4.05 | 6 |
| Its being economical | 4.16 | 0.56 | | | |
| Factor IV: Heating systems | | | | | |
| Room heater/combi boiler | 3.97 | 0.84 | | | |
| Solar energy system | 3.91 | 0.83 | 0.80** | 3.94 | 5 |
| Central heating system | 3.94 | 0.70 | | | |
| Factor V: Accessibility | | | | | |
| Accessibility to city centre | 4.10 | 0.76 | 0.75* | | |
| Accessibility to shoppings centre | 3.95 | 0.69 | | 4.00 | 5 |
| Accessibility to schools | 4.16 | 0.69 | | | |
| Accessibility to work | 3.80 | 0.68 | | | |
| Factor VI: Security systems | | | | | |
| Fire alarm | 4.15 | 0.86 | | | |
| Camera system (theft alarm) | 4.08 | 0.80 | 0.80** | 4.09 | 5 |
| Gas alarm | 4.04 | 0.67 | | | |
| Faktor VII: Social interaction | | | | | |
| Satisfaction in neighbourhood relationships | 3.98 | 0.78 | | | |
| The presence of acquaintances | 3.70 | 0.70 | 0.69* | 3.87 | 4 |
| The reliability of the people | 3.93 | 0.52 | | | |
| Factor VIII: Dwelling plan | | | | | |
| The number of rooms | 4.01 | 0.84 | | | |
| The rooms being useful. | 4.09 | 0.75 | 0.82** | 4.05 | 4 |
| Factor IX: Dwelling location | | | | | |
| The rooms being located on the mezzanine floor | 3.85 | 0.78 | | | |
| Its aspect | 3.84 | 0.76 | 0.66* | 3.84 | 4 |

*, Quite reliable; **, Highly reliable; 1, Strongly disagree; 2, disagree; 3, neutral; 4, agree; 5, strongly agree.

The most effective variable is the fact that the rooms should be useful.

9) **Factor IX** explains 4% of the variance and contains 2 variables. This factor is about the location of the dwelling and the most effective variable is the fact that the dwelling should be located on the mezzanine floor.

Factor I and II also explains 58% of the explanatory power. This suggests that insulation systems and external environment design are more effective on the choice of dwelling.

The relationship between the factors which are effective on the choice of dwelling and the user properties was evaluated with variance analysis and the following results were acquired (Table 4).

(1) The factor of dwelling location has a significant difference statistically according to the sex. Outdoor spaces factor is more important especially for the women users in the choice of dwelling.

(2) Heating systems and closeness/accessibility factors have significant differences statistically according to the education level. These two factors are more important especially for the high school graduates.

(3) The factor of security systems has a significant difference statistically according to the job status. "*Security systems factor*" is more important especially for the civil servants in the choice of dwelling

(4) The factor of outdoor spaces has a significant difference statistically according to the income level. This factor are more important especially for the ones whose income is between "2001,00 to 3000,00 TL" in the choice of dwelling.

(5) The factors of insulation systems and heating system have significant differences statistically according to owning an estate. These two factors are more important especially for those who have an estate.

(6) The factors of outdoor spaces, heating systems and dwelling location have significant differences statistically according to being from Düzce. These three factors are more important especially for those who are from Düzce.

7) The factor of outdoor spaces has a significant difference statistically according to having children. This factor is more important especially for those who have children.

CONCLUSIONS, DISCUSSION AND SUGGESTIONS

Dwelling and its environment, city planners, architects, landscape architects, administrators, politicians and many other occupational disciplines can all be united at the point of being "social realities". While dwelling determines the user perspective with its quality, comfort, safety, accessibility, recreational facilities and economy, it shapes the direction of mobility, population distribution, economical balance, socio-cultural structure in the city. It also becomes one of the fundamental components of the quality of life. At this point, expectations and satisfaction of an individual come into prominence.

The findings of the study put forward 9 factors (insulation systems and external environment designs, dwelling economy, heating systems, accessibility, security systems, social interaction, dwelling plan, dwelling location) that could be effective on the choice of dwelling. These factors also have 29 different variables that are effective on the choice of dwelling. The field of the study was established by TOKİ, which built dwellings in several cities of Turkey with little differences. The findings showed that 9 factors, primarily "insulation systems and outdoor spaces", were effective on the dwelling choice of the users of TOKİ housing in Düzce. However, the present dwellings are one of the "typical projects" that are produced by TOKİ and are carried out with little changes in many locations of Turkey. Like the fact that this situation can affect the satisfaction level of the users, it can also lead some dwelling sites with the same quality and characteristics to be formed across the city and the country. For example, one of the most important features of the present dwellings is that they appeal to different economical income levels. This feature has the quality of being the 3rd degree effective factor for the users.

Important relationships between the factors and the variables acquired in the study and some demographical and socio-economical features of the users were detected. In the choice of dwelling, significant relationships were detected amongst the factors of "location of the dwelling on the mezzanine floor and its aspect" according to the sex; "heating systems and accessibility" according to the educational background; "security systems" according to the job status; "usage of external environment" according to the income level and having an estate or not; "insulation systems" according to having an estate or not; "outdoor spaces, heating systems, dwelling location" according to being from Düzce or not; and "outdoor spaces" according to having children or not (Table 4). These relationships changes according to the user properties put forward in evaluating the importance of the user properties and their expectations in the determination of the policies and the goals concerning dwelling plan, outdoor spaces and urban planning.

The factor groups acquired in the study are parallels with the factor groups acquired in other studies, which were about dwelling satisfaction, carried out by Kellekci (2006), Je et al. (2007), Salleh (2008), Berköz et al. (2009), Li and Song (2009), Özgür (2009), Türkoğlu (1997), Li and Chen (2011) and Dekker et al. (2011). This suggests that the factors that are effective on the choice of dwelling can also be effective on the user satisfaction. In this sense, to enhance the satisfaction level, the necessity and the importance of putting forward the expectations of the users before the construction of dwelling comes up. When this is considered in terms of urban planning, if an establishment like TOKİ which builds dwellings so fast carries out the same projects all across Turkey, various problems could arise. And since

Table 4. The relationships between the factors and the user properties.

| User property | | FI | FII | FIII | FIV | FV | FVI | FVII | FVIII | FIX |
|--------------------------------------|-------------------|-------|-------|------|--------|-------|-------|------|-------|-------|
| Gender | Female | 4.09 | 3.88 | 4.15 | 4.02 | 4.07 | 4.17 | 3.85 | 4.08 | 4 |
| | Male | 3.93 | 3.84 | 3.99 | 3.89 | 3.96 | 4.04 | 3.9 | 4.03 | 3.74 |
| | F | 2.38 | 0.17 | 1.88 | 1.05 | 1.29 | 1.39 | 0.19 | 0.11 | 4.33 |
| | Significant | 0.12 | 0.68 | 0.17 | 0.31 | 0.26 | 0.24 | 0.66 | 0.75 | 0.04* |
| Age | 20-30 | 4.02 | 3.78 | 4.1 | 3.87 | 4.05 | 4.08 | 3.95 | 3.96 | 3.79 |
| | 31-40 | 3.97 | 3.84 | 4.11 | 3.92 | 3.86 | 4.15 | 3.8 | 4.19 | 3.9 |
| | 41-50 | 3.95 | 3.92 | 4.01 | 3.97 | 4.08 | 3.98 | 3.81 | 3.97 | 3.84 |
| | 51 > | 4.15 | 4.1 | 3.71 | 4.25 | 4.25 | 4.18 | 4.02 | 4 | 3.79 |
| | F | 0.39 | 1.11 | 1.22 | 0.97 | 2.06 | 0.54 | 0.75 | 0.99 | 0.19 |
| | Significant | 0.76 | 0.35 | 0.3 | 0.41 | 0.11 | 0.65 | 0.53 | 0.4 | 0.9 |
| Educational background | Primary school | 3.83 | 3.76 | 3.92 | 3.57 | 3.83 | 3.88 | 3.83 | 4 | 3.73 |
| | High school | 4.02 | 3.96 | 4.14 | 4.14 | 4.16 | 4.04 | 3.9 | 3.97 | 3.99 |
| | Vocational school | 3.8 | 3.57 | 3.76 | 4 | 3.8 | 4.25 | 3.71 | 3.95 | 3.62 |
| | Undergraduate | 4.07 | 3.89 | 4.06 | 3.92 | 4.04 | 4.21 | 3.88 | 4.13 | 3.8 |
| | Postgraduate | 4.29 | 3.91 | 4.38 | 3.95 | 3.77 | 4.19 | 4 | 4.39 | 3.89 |
| | F | 1.6 | 1.47 | 1.59 | 2.95 | 2.48 | 1.4 | 0.35 | 0.86 | 0.97 |
| | Significant | 0.18 | 0.21 | 0.18 | 0.02* | 0.05* | 0.24 | 0.85 | 0.49 | 0.42 |
| Job status | Civil servant | 4.11 | 3.92 | 4.24 | 4 | 4.01 | 4.25 | 3.88 | 4.19 | 3.85 |
| | Worker | 3.89 | 3.83 | 4.05 | 3.85 | 3.98 | 3.91 | 3.74 | 4.05 | 3.71 |
| | Retired | 4.17 | 3.89 | 3.95 | 4.33 | 4.32 | 4 | 4 | 4.11 | 3.96 |
| | Other | 4.02 | 3.93 | 3.99 | 4.02 | 3.95 | 4.18 | 3.96 | 3.97 | 4.09 |
| | F | 1.39 | 0.29 | 1.24 | 1.57 | 1.02 | 2.78 | 0.86 | 0.6 | 1,531 |
| | Significant | 0.25 | 0.84 | 0.3 | 0.2 | 0.39 | 0.04* | 0.46 | 0.61 | 0.21 |
| Monthly income (TL) | 1000.00 > | 3.98 | 3.69 | 4.07 | 3.76 | 3.96 | 4 | 3.87 | 4.05 | 3.82 |
| | 1001.00-2000.00 | 3.97 | 3.83 | 3.96 | 3.99 | 4.01 | 4.05 | 3.81 | 3.98 | 3.83 |
| | 200100-3000.00 | 4.03 | 4.09 | 4.22 | 3.93 | 4.04 | 4.27 | 4.03 | 4.13 | 3.87 |
| | 3001.00> | 4.14 | 3.8 | 4.23 | 4.3 | 3.95 | 4.1 | 3.73 | 4.45 | 3.9 |
| | F | 0.21 | 2.72 | 1.28 | 1.39 | 0.12 | 1.12 | 1.01 | 1 | 0.41 |
| | Significant | 0.89 | 0.05* | 0.28 | 0.25 | 0.95 | 0.34 | 0.39 | 0.4 | 0.99 |
| The state of having an estate or not | Having estate | 4.11 | 3.96 | 4.1 | 4.13 | 4.04 | 4.15 | 3.87 | 4.1 | 3.87 |
| | Being tenant | 3.81 | 3.71 | 3.98 | 3.68 | 3.94 | 4 | 3.85 | 3.99 | 3.78 |
| | F | 3.22 | 2.51 | 0.39 | 5.73 | 0.46 | 0.75 | 0.54 | 0.27 | 0.96 |
| | Significant | 0.02* | 0.06 | 0.76 | 0.00** | 0.71 | 0.52 | 0.65 | 0.85 | 0.41 |

Table 4. Contd.

| | | | | | | | | | | |
|-----------------------|-------------|------|--------|------|-------|------|------|------|------|-------|
| Are you from Düzce | Yes | 4 | 3.99 | 4.13 | 4.08 | 4.04 | 4.07 | 3.84 | 4.12 | 3.96 |
| | No | 3.99 | 3.7 | 3.96 | 3.78 | 3.96 | 4.12 | 3.9 | 3.97 | 3.7 |
| | F | 0.3 | 9.14 | 2.48 | 6.76 | 0.66 | 0.23 | 0.3 | 1.5 | 4.33 |
| | Significant | 0.86 | 0.00** | 0.12 | 0.01* | 0.42 | 0.63 | 0.58 | 0.22 | 0.04* |
| Do you have children? | Yes | 3.99 | 3.91 | 3.97 | 3.98 | 3.96 | 4.01 | 3.8 | 4.03 | 3.89 |
| | No | 3.9 | 3.55 | 3.91 | 3.78 | 4.13 | 4.02 | 3.93 | 3.79 | 3.9 |
| | F | 2.3 | 7.37 | 0.11 | 1.38 | 1.41 | 0.01 | 0.65 | 1.51 | 0 |
| | Significant | 0.59 | 0.01* | 0.74 | 0.24 | 0.24 | 0.94 | 0.42 | 0.22 | 0.99 |

*, p<0.05, **p<0.01. FI, Insulation systems; FII, outdoor spaces; FIII, dwelling economy; FIV, heating system; FV, accessibility; FVI: security systems, FVII: social interaction; VIII, dwelling plan; FIX: dwelling location.

every city has environments and even individuals that gained an identity with their different natural features, history, socio-cultural and economical structures, this kind of mentality of constructing dwellings will trigger problematic environments and lives in various aspects primarily urban, architectural, aesthetic, artistic and socio-cultural. However, the main goal should be creating a “dwelling” where the users will live with satisfaction in and will respond to the expectations of the users rather than building a “dwelling” in any way so ever. Also, a designing approach which responds to the expectations of the users, gives importance to social and cultural values, is enriched with a modern-technological understanding should be adopted. With such an understanding, economical and fast dwellings will be constructed.

The following results were acquired in this study:

- (1) Various factors are effective in the choice of dwelling.
- (2) The effects of these factors change according to the user properties.

(3) To enhance the dwelling satisfaction, determining primarily the expectations of the users will give effective results.

As a result, detecting the factors that are effective in the choice of dwelling before the application is quite important in terms of guiding the planning, designing and even the territorial dwelling policies. Also, to enhance the user satisfaction, the expectations should be put forward and the urban planners and designers should determine their goals and targets by selecting these expectations as the baseline.

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