Abstract

In Turkey after the 1950’s, especially in big cities with high rates of population increase, and due to diverse political considerations in the planning process, there exists a great lack of central and local authority in enforcing urbanisation and housing policies in population distribution, land use and housing. Inability to implement master plans has had the consequence of a big shortage in housing supply compared to the demand. This resulted in households producing houses with their own methods like ‘gecekondu’. This tendency, causing excessive production of houses, increased housing demand and speculative behaviour. In this context, housing supply systems have become stereotyped, inequality among households reaching high levels and control mechanisms becoming restricted.

The aim of this paper is to determine “the rate of housing, produced by housing supply systems which meets the demand in the housing market”. Consequently, housing demand, residential location behaviour and household preferences are analysed and utilised according to households which are located in planned and unplanned areas.
1. Introduction

People’s preferences for the location of their houses have been investigated for many years by various disciplines including environmental psychology, geography, urban sociology and regional economy. Socio-economic structure of a city and settlements of different social groups at different spaces, are interpreted as the spatial reflection of complex social relations.

As long as the people are different to each other and have different values, their housing preferences would also be different, and the householders would choose the location of their houses and the size of their living spaces to get the maximum satisfaction. Maximum satisfaction can be reached by having the maximum living space for some, while it may mean easy transportation or maximizing another factors to others.

The choice of housing and settlement areas in developing countries generally reflects criteria such as economic strength, and socio-demographic factors. Supply and demand differences in the housing market effect people's preferences.

Whilst houses produced and occupied in developed countries are open to competition, they are under the influence of a series of discrepancies in developing countries. Such discrepancies are mainly caused by factors that extend from easy access to work premises, differences in incomes, training, availability of employment to legal or illegal ownership of houses.

Although there is a great demand for housing for people in the low income bracket because of the population migration to the metropolitan areas of developing countries, there is a gradual increase in the supply of housing for people in the higher income bracket. Those in the low income bracket cannot find suitable housing to either rent or owner. Therefore squatter houses emerge as an attempt to meet the demand for housing.

The spatial difference between the metropolitan cities of the developing and developed countries can be explained simply as below:
In developed countries, living near the city center is important for the low income groups. Organized public and private transport systems allow people who can afford transportation costs, move outskirts. Therefore the income of people living at outskirts of the cities is higher than those living in the centers.

In Turkey, similar to many other developing countries, there are two faces of the housing sectors-planned and illegal unplanned developments.

In the planned section, the housing supply is developed by various kinds of models, e.g. the landowners building their own houses, the contractors building and selling the landowners houses, housing cooperatives operating with low profits, mass housing contractors aiming higher profits.

In the unplanned section, there are also different activities varying from the squatter houses individually, to organizations at different levels for marketing lands at squatter housing districts.

2. Residential Location Models

This study investigates the location decisions for residences, the reasons of the mobility of the household population and its effects on residence aimed at the determination of the problems of the residence market. The study of the history of the city models reveals 5 major traditional views about the decisions of household populations for residential selection. (Webster, Bly, Paulley, 1988) (Putman, 1991) and these views are in a nature that can serve as basis for future studies:

1. Herbert – Stevens Model (1960)
2. Lowry Model (1964)
3. Alonso Model (1964)
4. Empiric Model (Hill, 1965)

The above mentioned models have been designed with the aim of setting the land use activities. It is observed that, especially in the Herbert-Stevens Model, (Herbert,
a structure which aims the optimum distribution of household populations to Residence areas and a structure similar to the Alonso Model, (Alonso, 1965) maximizing the benefits of the household population is common (Putman, 1979) (Putman, 1991). A systematisation of the household population behaviour is observed in the Wilson Model, Lowry Model and similar models (Lowry, 1964) (Wilson, 1974). The assumption that “the activities on urban areas are balanced and distributed in a homogeneous manner” in all these models which are characterised as traditional models, is not sufficient in the real world to explain the dynamic structure of the urban system which is in constant change (Lee, 1973) (Bölen, Gezici, Koca, Küçük, Tarhan, Yirmibe• o• lu, 1992).

Therefore, this study aims at investigating and explaining the heterogeneous structure based on the location selection and dynamic characteristics which develop with the non homogeneous economic and social structures of the families, rather than this homogeneous structure. In this direction, the matter that especially needs to be scrutinised is the questioning of whether the real residence needs can be met or not in an environment where the supply and demand relationship is established according to the market conditions and the investigation of the theoretical approaches that these models are based on.

3. The Supply and Demand Relationship in the Residential Location Models

Taking relevant measures to meet the residence needs in a certain standard and the implementation of a plan which takes into account the unique characteristics of every city and the environmental factors in an environment where the supply and demand equilibrium is set by market conditions in the residence sector in Turkey. The population increase, the migration from rural areas to cities, the fast transition from expanded families to nucleus families and the demands of people to live in houses with better qualities can be cited among the factors behind the demand for houses in Istanbul and the fact that this demand is kept alive as in other major cities (TTSDTO, 1988). It is known that this demand is met both by the production of legal residences by the market through normal ways and also by illegal residences (houses in squatter areas). What is important, is the meeting of this demand in a certain standard.
The supply of a certain product in a definite time is constant. Therefore, a need of adjustment between the people who have a certain demand for that product is necessary. This is achieved through price adjustments. The demand decreases as the price increases and as price decreases, the demand increases again. The equilibrium price is achieved where the supply and demand are equal. When supply increases, the price is pulled down in order to achieve the consumption of the total amount of the product. The increase of prices is obligatory in cases where the supply is low.

We should not ignore the fact that the price-demand-supply relationship in the market valid in the economy is also valid for the residence market and that the demand for houses and the supply amount will be determined according to the same supply and demand conditions. Researchers (Wissen, Rima 1988, Harsman, Snickars, 1975, Webster, Bly, 1988, and many other scientists) include the Supply-Demand studies widely in their Place Selection Models for Residence Areas. Harsman and Snickars, (1975) have brought three different working areas for demand of residences into the agenda.

1. The Comprehensive Residential Location Models which are based on the studies of Alonso and Muth and include the traditional views (Bertuglia, Leonardi, Occelli, Rabino, Tadei, Wilson, 1987, Harsman, Snickars, 1975).

2. Disaggregated Demand Studies; this notion determines the demand for residence by taking into account the consumer. Issues like the function of usefulness, the income level of the household population and group behaviour are mentioned in these studies.

3. Migration Studies of the Housing Markets; changes in residential consumptions have become a part of the agenda because mobility became compulsory. Models like (Harsman, Snickars, 1975) Markov and similar ones which conclude that this mobility is related with the income levels and the duration of stay of the whole household population or some of it at a certain place, are the pioneers of the studies conducted in this respect.
4. Field Research

The aim of the study is to determine the problem areas directed towards the housing market in the metropolitan area of Istanbul and in Turkey in general; the residential demand; the location choices of the household populations based on different socio-economic structures and their behaviour and to be able to make evaluations which can provide benefits for the housing markets. We have also aimed at finding some clues by investigations carried out in the planned and unplanned residence areas of the city.

The aim of the survey and the field analysis and questionnaires performed in conjunction, is to determine and compare; how existing housing demands affect the housing supply in Istanbul; types of housing required depending on variations in family structures; household preferences, taking in to account the country’s economy and social characteristics.

Since social and economic conditions are not homogenous in the various districts of Istanbul, the field in the research is determined by randomly selecting among lists of four different sample areas such as:

1. Mass Housing Areas; (Yirmibe• o• lu, 1990)
2. Planned Residential Areas.
3. High Income Residential Areas.
4. Unplanned Residential Areas (Ergun, 1996)

Sample size is a total of 800 questionnaires arranged in four different groups of different fields, 200 questionnaires each, comprising 3230 persons.

The results of questionnaires and field analysis are shown below.

4.1. Household Size and Structure in Planned Residential Areas and Unplanned Residential Areas

In Planned Residential Areas; Household size is 3.76 persons. These are, nucleus family 80.8%, simple expanded family 7.2%, multiple family 2.5% and the remaining is the non-family group. Among these 49% are married, 46% single and 01% widows.
In Unplanned Residential Areas; Household size is 4.88 persons. These are, nucleus family 82.5%, simple expanded family 16%, and the remaining 1.5% is the non-family group. Among these 67% are married, 31.4% single and 1.6% widows.

Figure 1. Family Structure in Planned Residential Areas and Unplanned Residential Areas

![Family Structure Chart]

Figure 2. Marital Status in Planned Residential Areas and Unplanned Residential Areas

![Marital Status Chart]

4.2. Social and Economic Structure in Planned Residential Areas and Unplanned Residential Areas

Analysing the percentage of age groups in Planned Residential Areas; 35.1% below 19, 52.6% aged 20-49 and 12.3% above 50 years old. Educational levels are; 31.5% primary school, 13.7% secondary school, 24.2% high school, 20.3% university and 10.3% illiterate.
In Unplanned Residential Areas; 13% below 19, 74% aged 20-49 and 13% above 50 years old. Educational levels are; 58% primary school, 10% secondary school, 12.5% high school, 1.5% university and 18% illiterate.

**Figure 3: Educational Level in Planned Residential Areas and Unplanned Residential Areas**

In Planned Residential Areas; occupation of persons are; the rate of children-students are highest at 36.7%, house-wives 21.6%, wholesale and retail trade, restaurants, hotels 9.1%, community, social and personal services 10.2%, finance, insurance, real-estate and business services 6.6%, retired 3.6%, administrative and managerial workers 2.7%, construction 2.5%, manufacturing industry 2%, others 5%. In Planned Residential Areas out of the 2249 questionnaired only 37.7% is economically active.

In Unplanned Residential Areas; occupation of persons are; the rate of house-wives are highest at 38.6%, children-students 21.4%, workers 19.0%, officer 4.3%, unemployed 3.6, marginal 13.1%. In Unplanned Residential Areas out of the 981 questionnaires only 36.4% is economically active.

**4.3. Home Ownership in Planned Residential Areas and Unplanned Residential Areas**

While the home ownership ratio is 63.5% in Istanbul; it is found %64 in Planned Residential Areas and %69 in Unplanned Residential Areas where the study is carried out.
In Planned Residential Areas; according to the period of residence in Istanbul, rates are 8.8% 0-4 years, 15.3% 5-9 years, 34.2% 10-19 years, 41.7% 20 years and above.
In Unplanned Residential Areas; rates are 34.5% 0-4 years, 22.5% 5-9 years, 17% 10-19 years, 26% 20 years and above.

In Planned Residential Areas 59% of the households in the research area live in middle class apartment flats (four person families are the highest group with 18.6%). 25% in luxury apartment flats (three person families rate highest at 7.3%). 11.7% in villas.
In Unplanned Residential Areas 56.5% of the households live in detached houses while the remaining live in apartment flats.

4.4. Household Preferences in Planned Residential Areas and Unplanned Residential Areas

In Planned Residential Areas the household preferences of the future are to live in villas at 51.5% and luxury apartment flats at 30.5%.
In Unplanned Residential Areas, 30% of the households who want to move, prefer to live in apartment flats.
In Planned Residential Areas, in the future 13.2% of households will prefer to live in luxury housing areas, some of them 31.3% will prefer middle class districts, some of them 32.5% will prefer middle high class districts.

In Unplanned Residential Areas 8.5% of the residents prefer to stay in the same neighbourhood while 82% wants to move to central planned areas and 9.5% to other cities.

In Planned Residential Areas, 4-5 person family at 17% want to live in middle class districts and 1-2 person family at 7% in luxury districts. It is observed that as the income increases the dwelling area increases. On the other hand big sized households live in small houses and small sized households live in big houses.

Looking at the mobility of households in the last decade in Planned and Unplanned Residential Areas, it is observed that 15% have not moved at all, 85% have moved at least once, that the small sized households are more inclined to move, that as the income increases mobility decreases, and that tenants move more than landlords.

In summary the results of the questionnaires give an insight about the family structures of households, housing types and decision on residential location and preferences for the future. The analytical study of these results will assist in providing data for the planning of the housing market and housing demand in Istanbul.

5. General Evaluation, Conclusion And Suggestions

A gap and an insufficiency is observed in Turkey, especially after the declaration of the Republic, along with the population increase and different policies and strategies implemented in the planning policies, in urbanization, the determination and execution of housing policies especially in the distribution of the population and in land, house and squatter areas. In an environment where the prepared plans are not executed or are ineffective when implemented, it is inevitable that the house producing industry aiming at meeting the demand for houses has insufficiencies and gaps which results with the inevitable end. That is, the tendency of the household populations to try to meet the accommodation needs (even the needs and demands not only for accommodation only, but also for profit generation purposes)by their own means and methods.
As a result, this tendency can lead to an increased demand for houses which can lead to extreme quantities of production and to speculative behaviour. In this environment, the house supply methods are reduced to very few types which have become stereotyped which in turn leads to an increase in inequality and to the restriction of the necessary control bodies.

Following all these developments in Turkey, we have reached the current stage by the contributions of residence cooperatives, The Mass Residence Management, local administrative bodies and private entrepreneurs (Especially Turkey Real Estate Bank). Other significant problem areas are the provision of the residence and environment quality to be sufficient, the encouragement and promotion of the production of houses for rent suitable for the income level of the middle and low-middle income group despite the fact that, in parallel with the way houses are supplied with the aim of meeting the demand for houses, the number of total houses produced for residence purposes are sufficient.

The conclusions and suggestions that may contribute to the Istanbul residence market following the study of location selection behaviour for residents and the survey study conducted in different residential areas and the present statistical data about Istanbul are presented below:

- The fast growth of population in the Istanbul Metropolitan Area, increase of the demand for houses bring the subject of production of houses, be it through legal or illegal means (with the production of houses in squatter areas by the people) becomes an important problem issue. In such an environment where the need for houses is met by the market, the problem should be addressed first and giving a certain direction to this demand in a certain standard should be provided.

- The fact that the size of the household population is getting smaller through the years is the main proof of the change in the social structure and the transformation from expanded families to nucleus families. Thus, the main measure that has to be taken for the residence market is the encouragement of the production of medium size houses (80-100m2) by considering the suitable sizes of houses. The fact that the size of the household populations vary and the
fact that the population of households living evenly in the same district may have social and economic differences emphasises the importance of the fact that the issue should be analysed at district and even at neighbourhood level.

• We analyse the home ownership criteria according to the 1999 data for all of Istanbul, it is observed that the percentage of home owners are 63.4% where 64% is within the planned sampling area and 69% is within the sampling area which is out of plans.

• The utilisation of the current residence potential within the metropolitan area of Istanbul which is not being used and the evaluation of the new Residence area proposals within a total planning understanding are necessary and fragmented plan solutions should not be encouraged.

• Because of the different social and economic structures of household populations, different behaviours in the selection of location and mobility are observed. Therefore, sufficient areas suitable for urbanization should be provided which is in harmony with this diversity and the production of houses (depending on the size of the household population and aiming at solving the needs of household populations) that will be able to serve the needs of all the sections of the society should be encouraged.

• The fact that the economic and political decisions to be taken at the national level and the understanding of a planning in harmony with them should not be neglected. It should not be forgotten that special urbanization rules to complement the deficiencies of the current system in the Turkish urbanization and the determination and development of planning techniques to direct the development of the city are necessary to solve the urban planning needs and for the future of the residence market.

• The fast population increase in Turkey, the migration from the villages to the cities and their desire to continue their old lifestyles in the city leading to the changing of urban identity, the illegal means of home ownership of household
populations (by building their own houses in the squatter areas) due to economic reasons, the encouragement of this process by the legalization of these buildings by amnesty law are the developments that determine and direct the residence markets. Another important problem from the point of view of planning is the inability of implementing the plans prepared, and their lack of reflection in the residences. A fast transition should be provided from the planning stage to implementation by the necessary political and legal measures. The control and supervisory mechanisms of the local and central administrations should be in effect, an economic and legal environment directed towards the residence market should be urgently created. All these conclusions and suggestions reveal the necessity of measures in the residence market for the residence problem, and infrastructure which provide the unity for houses and serve the needs for all segments of the society. This is possible by the implementation of the government authority decisions in a manner that will include all the city as a whole. The process of implementation should be made easier; control mechanisms should be working in every field and a new inspection mechanism should be created and implemented.

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