

# THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

## The Effect of Mortgage Finance Options on Customer Preferences in Turkey

**Muhammad Haseeb Khan**

MBA Candidate, Istanbul Aydin University, Social Sciences Institute, Istanbul, Turkey

**Dr. Nurgun Komsuoglu Yilmaz**

Assistant Professor, Istanbul Aydin University,  
Faculty of Economics and Administrative Sciences, Istanbul, Turkey

### **Abstract:**

*The importance of an efficient housing finance system for every country cannot be neglected as it has its significance for meeting the demands of both the housing needs of the individuals and also the reinforcement in developing the finance, construction and the sectors related to these markets. The major reasons for being the unavailability of sources are macroeconomical and political stability in these countries, there has been a significant development in the housing finance sector of Turkey. One of the major developments is the mortgage system development along with the new Mortgage Law approved by the Parliament. The purpose of this thesis is to analyze the mortgage system in Turkey and also to highlight the factors that influence the choices and preferences of the consumers while they decide to take mortgage housing finance.*

*The research provides an in-depth analysis of the preferences of the consumers with regards to the mortgage system in Turkey. The data was collected through primary source where the respondents were asked to provide their response based on 16 cards that contain a combination of available options in the mortgage markets for the consumer to choose from. The respondents were asked to rank each card according to their preferences. The cards were formed using the Microsoft Engineering tool on the excel software. The data collected was then used to perform conjoint analysis that provided an in depth information about the preferences of the consumers. The mortgage market in Turkey is getting developed day by day as more and more people in Turkey are willing to own their own residency along with the increase in the number of refugees. This has resulted in the development of the housing finance system especially the mortgage system in Turkey. Therefore, this research has significant importance to provide the players of the housing finance market of Turkey to know what are the preferences of the consumers are willing to take loans for owning their residency in the Turkey.*

**Keywords:** Mortgage, Housing finance, Conjoint analysis

### **1. Introduction**

The housing finance is a very broad topic whose concepts may vary based on different continents and regions. The housing finance system of any country can bring together a multi-sector and a complex issue that can be driven by the ever-changing features of the local community that may include the legal environment of the country, the culture of people residing in the country, the economic makeup, environmental regulatory system or the country's political system. (Loic&Lea, 2009)

The entire concept of house finance and housing finance system has been observed to evolve over the time. In mid 80's the concept was rather regarding the residential mortgage finance system. As discussed by Boleat, Mark (1985) that the sole purpose and objective of housing finance system is providing the home buyers with the finance required for purchasing their homes. The objective of housing finance is however simple but the ways in which it can be achieved is very limited. In the recent years, there has been an introduction of a number of complex and difficult housing finance systems in countries but the essential feature of the housing finance system has been unchanged that is the ability of financial institutes to provide their clients with an opportunity to purchase their own residential home.

The house finance system is, however, in recent years, not limited to the residential mortgage finance but also includes the other forms of mortgage available for the consumers that may include developer's finance, the finance for rental purpose, or microfinance that is applied for the housing purpose. (Loic&Lea, 2009)

The main purpose of this research is to focus on the sources and types of housing loans that are available for the consumers in the Turkish house financing market and how the individual consumers prefer to adapt those loans in order to gain housing properties for themselves. The research will focus on the mortgage systems, the housing systems and the problems that are associated with the housing finance system in the Turkish housing market.

## 2. Literature Review: Mortgage Systems in Germany, Turkey, and U.S.A.

### 2.1. Mortgage Systems in the USA

According to Callis & Kresin (2011), the United States has a typically complex mortgage market including the housing mortgage system. It has been found that both primary and secondary mortgage markets of US are very complex as compared to rest of the world. In addition, the mortgage industry of USA is also classified as largest in the entire globe. According to a research, in the first quarter of 2016, the mortgage loan was more than six times greater than a student loan and more than 11 times greater than credit card loans in the USA. As per the estimate, the USA mortgage rate in 2015 was 3.5% and the total residential mortgage-backed security issuance was \$ 923.5 billion (Facts, 2017). It is noteworthy to mention that the mortgage system of US started in the shape of housing finance. The US housing financing started back in the 19th century mainly based on informal channels and it has evolved consistently with respect to time. The major developments to formalize the mortgage system housing financing started in early 20th century with the establishment of Federal Administration Bank and The Federal Home Loan Bank. After the establishment of these institutes, the process of housing finance was expedited by the government after the great depression (Colton, 2002).

A common type of mortgage in the US is mortgage-backed securities (MBS). MBS need to go through the process of securitization and their operations mainly take place in secondary markets. To form an MBS, a pool of multiple mortgage loans is formed by the financial institution and then these securities are sold to investors present in the secondary market by the issuance of certificates similar to shares or bonds. The investors in MBS share the return earned on the loans in the pool; however, they are not obliged to share any cost item of the pool. This illustrates that the investors in MBS are safeguarded against losses and entire credit risk is borne by the bank initiating the mortgage. The advantages of MBS to the issuing bank include the improved liquidity of the bank as a result of cash collection against issuance of the pool (Chatterjee & Eyigungor, 2011).

#### 2.1.1. Federal Housing Authority (FHA)

The FHA of US was established in 1934 by the department of housing and urban development. The institute was formed keeping some key objectives and needs of the state in mind. Those objectives include the provision of funds to the public at a low-interest rate, provision of guarantee for hypothecation and enhancement of secondary mortgage market in the country. The implementation of these factors has proved to be helpful for low and medium income groups in purchasing home (Hawtrey, 2009).

#### 2.1.2. Federal National Mortgage Association (FNMA)

According to Wallison and Ely (2000), FNMA was established in 1938 and its main purpose is to organize the secondary market activities in the US. It helps the country balance the demand and supply for housing and enhance the liquidity of the housing market in the US. One of the rules of FNMA states that it will facilitate house loans to only those houses which have obtained a guarantee from the government and are also insured by Federal Housing Authority or Veterans Administration. FNMA has been active in the US mortgage market but it could not reach the desired level over the years. As a result, the FNMA was separated into two new corporations. One of the two counterparts was named New FNMA; it was privately owned and sponsored by the US government. The purpose of separation was to extend the credit facilities through non-government-guaranteed mortgages (Courchane & Giles, 2001).

#### 2.1.3. Government National Mortgage Association (GNMA)

As a result of the division of FNMA, the GNMA was formed as a state-owned enterprise to finance the houses under the same department and ministry. The aims of the newly formed institute were also similar to FNMA; these include the provision of support to secondary markets and provision of insurance to mortgage-backed securities. At the same time, the GNMA aimed to start the securitization process in housing loans in the US. GNMA is wholly reliant on the federal budget and self-financing. The mortgage-backed securities of GNMA are generally insured by the Federal Housing Authority. Further, it is notable that the GNMA is very well reputed in the US; a guarantee obtained by GNMA is similar to a government guarantee which has the highest rating in any society (Hepsen, 2008; Dunn & McConnell, 1971).

### 2.2. German Mortgage System

As prescribed by Stephen (2003), the German housing finance is mainly acquired by a completion of savings contract. The savings contract employs that when an individual is able to save his savings in a bank at a discounted rate in comparison to market can only avail the housing loan at a lower cost. This system generally does not help the lower middle class as seen in the case of US. This system is not friendly for the end debtors; if a guy cannot afford to maintain savings then he will not be able to obtain housing finance and purchase house accordingly. The core objective of this policy by financial institutions is that they operate by keeping mortgage interest loans as low as possible in order to lower the cost of housing finance in the country. The sources of these funds are also individuals who save with the bank at the lower rate and down payment of house to be purchased by debtors to the creditor (Green & Wachter, 2007).

The building savings banks are still operated in the Germany and have achieved success over the time as well. There are total 17 private sectors and 11 public sector building savings bank in Germany and these have cumulatively built nearly 13 million houses in the country. The funds provided by these banks amounts to 800 Billion Euros since the World War II (Stephen, 2003).

Another type of housing finance system used in the Germany is Pf and Brief System of housing finance. In Pf and Brief model, the housing loan is securitized and the funds are compiled into a pool. After the formation of this pool, the Pf and Brief are issued by the financial institution to finance their investments (Martin, 2011). Pf and Brief reached the volume of \$182.5 billion by the end of 2007 indicating that it is the largest component of German bond market. The well-functioning mortgage market in the Germany has contributed significantly to the success of Pf and Brief model (Hepsen, 2008).

### *2.3. Mortgage System of Turkey*

The housing finance of Turkey was established on the basis of US mortgage law. However, the mortgage is not fully applicable in the case of Turkish law and it differentiates the mortgage system in the two countries. As the US mortgage focuses on the transfer of possession of the property to the creditor and also permits the issuance of the mortgage by issuance of a promissory note to hand over the real property to the creditor. The case in Turkey is different; the Turkish law allows the mortgage on the guarantee to property only and no other instrument such as promissory note is eligible for the issuance of the loan. There is also a stringent civil law which prohibits the acts specified above and financial institutions involved in such acts will have to face severe consequences (Ansay & Wallace, 2011).

The housing finance corporations of Turkey are also required to get the agreement of consumers on terms and conditions of the loan prior to the contractual arrangement and starting of transactions. The housing finance institutes are also required to complete these pre-contractual agreements at least 48 hours before the start of transactions. In the case of an early payment, the law requires the debtors to pay 2% more than the installment expected as the rate can vary. The interest rate is linked to the discount rate prevailing in the economy as the mortgage loan is long-term with tenure around 20-25 years (Chiquier & Lea, 2009).

In the case of default of housing loan, the treatment must be same as that of the consumer loan. Firstly, it is important to serve the debtor with a notice and not to initiate any other action against him simultaneously. In the case where the debtor is not paying installments on a consistent basis, housing finance providers are authorized to terminate the loan agreement. In the case of a termination, there are two methods to collect the entire amount due including interest on their investment. Firstly, they are required to send a notice to the debtor to pay the amount in full within a specified time. In the case of non-compliance, the creditor can sell the property by means of the auction and recover his amount similarly (Chiquier & Lea, 2009).

The housing finance method called mortgage-based securities is permitted under the new Turkish Mortgage system. It is called off the balance sheet method in Turkey; it does not have a legal identity and also do not belong to the assets of the issuer. It is prohibited to dispose of off assets of the fund in the case of losses because it is considered separate from the worth of fund. Further, it must be noted that the Turkish mortgage system was not much affected as a result of Global financial crisis despite a big hit to their banks. It was due to the fact that the Turkish system was not based on securitization and even it is less reliant on securitization in the modern era. Therefore, it did not get a major hit as seen in the case of developed countries where mortgage based securitization was so common (Chiquier & Lea, 2009).

## **3. Housing Finance System**

### *3.1. Turkish Real Estate Market*

In the view of Crowe, Dell'Araccia, Igan & Rabanal (2013), the real estate market has seen growth all around the world in the recent decades. It is primarily due to the increase in population as people require houses to live in an increase in affordability of people in general. The real estate market has grown primarily due to investment by investors for the purpose of earning rent and capital gain. In line with global trends, the Turkish real estate market is also grown immensely in the last few years. In accordance with a recent report by Deloitte Turkey partner, Yildirim (2015), the real estate market growth rate even outperformed the GDP growth rate of the country in the year 2014. In another report by Global Property Guide (2017), the prices in the real estate sector went up by around 18% during the year 2016 suggesting a real increase of 8.17%. Conversely, the price went up by around 15% during the same year which implies a real increase of 5.43%. It is further discussed in the report that the future long-term outlook on the sector by financial and real estate analysts is also positive suggesting that price and volume both are expected to increase further. This suggests the potential of real estate in the Turkey and implies that it is one of the important sectors of the economy (Global Property Guide, 2017).

According to Cash4OverseasProperty (2016), Turkey has recently faced numerous socioeconomic problems in the form of terrorist activities as well as the recent attempt of a coup by the military. Despite these destabilizing events, the property in Turkey is surging continuously and is expected to go further up in the years to come. It is mainly due to the interest of foreigners in the real estate of the country. Two big foreign investors in Turkey are China & Arab countries which contribute a significant amount of FDI into the country. It is noteworthy to mention that apart from these nations, the British and German are also highly interested in acquiring real estate property in Turkey. The German population is acquiring

property in Turkey because many Germans have Turkish origin and therefore, want to have some property in their country of origin. On the other hand, the British are impressed due to the leisure facilities, beaches and living standards in Turkey and therefore, are interested in acquiring property as well (Cash4OverseasProperty, 2016).

The report by Yildirim (2015) further illustrates that the foreigner investment in real estate in Turkey forms a sufficient portion of total FDI in the country. This usually varies around 20% to 30% of total FDI in each year. The growth of foreign investment in FDI can be traced to the fact that it was USD 2,013 Million in 2011 and after growth over 5 years, it reached USD 4,156 Million in 2015 despite a minor dip in 2015 when real estate sector and GDP growth rate of Turkey experienced negative growth.

#### 4. Methodology

##### 4.1. Basic Concept of Conjoint Analysis

For the purpose of analysis of the research, the conjoint analysis is being used. The basic concept of conjoint analysis is to develop the understanding of the preferences of the consumer for any specified product or services. It is a multivariate technique that will enable the researcher to develop a clear understanding. The technique is based on data collected through a survey by the researcher to study a number of consumer's attributes that may include benefits, features, and functions in particular to any selected service or product. (Smith & Fennessy, 2011)

In this research, the basic objective of using conjoint analysis is to understand which combinations of attributes are more influential on the choice of the respondents while he/she makes a decision on purchasing the product. The researcher has used a controlled set of products and services for the chosen market in order to have a better understanding of the preferences and how their preferences vary on the basis of different combinations of the products and services with regards to mortgages. These various implicit valuations will be used to create different market models to help make estimates of the market share and revenues along with the profitability that can be derived from new designs.

For the purpose of research, the term factor is used to define the specific attributes and the characters of the products in the mortgage industry. The term level is used to describe the possible values that each factor can have. The service or product in the conjoint analysis is described on the basis of its level on the possible set of factors that characterize it. The combination of these factors based on the selected product and service is being described as treatment or stimulus, in the research by the researcher. (Hair, et al, 1999)

There are a number of advantages for using conjoint analysis for research purpose. The major advantage is that this analysis helps the researcher know the consumer's specific behavior with regards to their service and product. The behavior of the consumer, being majorly dependent on the three major factors those include the economic rationality, maximum benefits that he can drive on consumption of the good or service and the limitation and optimum while he makes decisions. (Hundert, 2009) All these can be measured with the help of different combinations of attributes and level of the product and service in the conjoint analysis. The conjoint analysis also provides the researcher to uncover and to reveal some of the hidden drivers that may not be otherwise apparent to respondents themselves. Other than that, the conjoint analysis, if designed appropriately, can help the researcher to build a model that can link the interactions between a number of attributes and levels, which can help the researcher and the market players to have needed base segmentation of the market. (Green & Srinivasan, 1978)

Attributes	Level 1	Level 2	Level 3	Level 4
Types of Mortgage	Fixed rate Mortgage	Adjustable rate Mortgage		
Repayment Structure	Fixed Payments	Increasing Payments	Decreasing Payments	Balloon payment
Length of Mortgage	Less than 5 years	5-10 years	More than 10years	
Approval Speed	Slow	Average	Fast	
Bank Reputation	Average	Good	Very Good	
Easiness of process	Easy	Hard		

Table 1

In order to conduct conjoint analysis, the first and most important step is the defining of the proper attributes along with the levels for the purpose of research. As discussed earlier, the attribute is defined as the characteristic of the product, and the levels are the different degrees of the characteristics of that specified attribute. (Tripathi & Siddique, 2010). In this research, the attribute and the levels are based on the factors that are affecting the mortgage choices of the consumers in Turkish housing market and the mortgage system in Turkey. The specified attributes and levels have been derived in the basis of the literature review and the results of the survey conducted with the respondents who are market players. These attributes and levels are defined in the following table.

The various combinations of these attributes and levels were then formulated in the form of bundles. These Bundles were carefully prepared by the researcher with the help of marketing engineering for excel program. The basic calculations behind the formation of these cards are that these combinations are based on the factors and the levels defined in the above table. That is  $2 \times 4 \times 3 \times 3 \times 3 \times 2 = 432$ . This is difficult for the respondent to respond and understand all of these 432 combinations and therefore the combinations have been limited by the researcher taking in account the main factors. The marketing engineering program was hence used to form 16 cards based on the orthogonal plan. These bundles were used to gather the data of the respondent's preferences. The bundles are defined in the following table.

Bundle 1	Bundle 2	Bundle 3	Bundle 4	Bundle 5	Bundle 6	Bundle 7	Bundle 8
FRM	ARM	FRM	ARM	FRM	ARM	FRM	ARM
Fixed Payment	Decreasing Payment	Fixed Payment	Increasing Payment	Fixed Payment	Increasing Payment	Increasing Payment	Increasing Payment
<5 Years	5-10 Years	>10 Years	> 10 Years	<5 Years	5-10 Years	>10 Years	5-10 Years
Slow	Average	Fast	Slow	Average	Slow	Average	Fast
Average	Very Good	Good	Good	Good	Good	Very Good	Average
Easy	Hard	Hard	Hard	Hard	Easy	Easy	Hard

  

Bundle 9	Bundle 10	Bundle 11	Bundle 12	Bundle 13	Bundle 14	Bundle 15	Bundle 16
ARM.	FRM.	ARM.	FRM.	ARM.	FRM.	ARM.	FRM.
Decreasing Payment	Decreasing Payment	Decreasing Payment	Fixed Payment	Balloon Payment	Balloon Payment	Balloon Payment	Balloon Payment
< 5 Years	5-10 Years	>10 Years	5-10 Years	< 5 Years	5-10 Years	>10 Years	5-10 Years
Fast	Average	Slow	Average	Average	Fast	Average	Slow
Very Good	Average	Good	Good	Good	Good	Average	Very Good
Easy	Hard	Hard	Easy	Hard	Easy	Easy	Hard

Table 2

The data was collected by providing the respondents a set of 16 cards. These cards contain important factors of mortgage with their different levels which were explained in these cards. The levels were specifically designed to demonstrate their influence on a customer while they decide to select the appropriate bundle for themselves while deciding to choose between mortgage options. The respondents were asked to rate each card according to their preference, 1 being the card with the options that are most preferred by the respondent and 16<sup>th</sup> being the least preferable combination by the respondents.

### 5. Analysis and Results

For the purpose of analysis of the research, conjoint analysis was used to find the consumer's preference with regards to the mortgage system and option available for the customers of the Turkish housing market. The reason for using the conjoint analysis for this research was that the conjoint analysis provides with the best results for the market players to know the preferences and the levels of attributes that the consumer prefer while deciding to purchase the commodity in the specific market.

Scenario/Product Profiles	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10	P 11	P 12	P 13	P 14	P 15	P 16
Predicted Market share	2 %	2 %	6 %	0 %	1 %	6 %	10 %	7 %	11 %	8 %	8 %	6 %	11 %	10 %	6 %	6 %

Table 3

According to the conjoint analysis, and in the light of 100 respondents' responses the market share prediction for all the 16 profiles that were provided to the respondents have the predicted market share as per the above table. The market scenario or the product profiles according to the preferences of the consumers are being discussed in the above table, where the maximum share of the market is for the profile 9 and P13. And P4 has zero preference

Software created 5 combinations those are based on the most preferred attribute and level and possibly can capture the maximum market share in the presence of existing product profile. Those optimal products and their possible market share will be discussed in results with help of graph provided by software.

Attributes/ Optimal Product Profiles	Optimal Product 1	Optimal Product 2	Optimal Product 3	Optimal Product 4	Optimal Product 5
Types of Mortgage	Adjusted rate mortgage	Adjusted rate mortgage	Adjusted rate mortgage	Adjusted rate mortgage	Adjusted rate mortgage
Interest Rate	Balloon Payment	Balloon Payment	Balloon Payment	Balloon Payment	Balloon Payment
Length of Mortgage	Less than 5 Years	Less than 5 Years	Less than 5 Years	5-10 years	5-10 years
Approval Speed	Fast	Fast	Fast	Fast	Slow
Bank Reputation	Average	Good	Very Good	Very Good	Very Good
Easiness of Process	Hard	Hard	Hard	Hard	Hard

Table 4

## 6. Conclusion

The conjoint analysis was used to find out the set of attributes and their combinations which were preferred by the consumers in the Turkish housing market while deciding to choose the mortgage option in the market. The conjoint analysis was used for the research analysis purpose as it provides the best results and analysis with regards to the preferences of the consumers based on the attribute and the level of these attributes. The conjoint analysis provides with an in depth information regarding the preference levels in the market, enabling the marketing professionals to make decisions and predictions regarding the sales of their products in their specific market. The Turkish housing market also has a number of mortgage options available for the consumers to choose from while deciding to take mortgage.

A through research was conducted on the housing market of the Turkey and the mortgage structure and options that are available for the consumers in the mortgage and housing market of Turkey. For the purpose of analysis, 16 different set of attributes and their levels were constructed using the Marketing Engineering of the Excel software.

The conjoint analysis showed that the most preferred product profile, from the prospective of the preference of the consumer was the P7 profile according to the ratings of the respondents. The product profile P7 is as under:

MOST PREFERRED CARD	
ATTRIBUTES	LEVELS
Type of mortgage	Fixed Rate Mortgage
Repayment Structure	Increasing Payments
Length Of Mortgage	More than 10 Years
Approval Speed	Average
Bank Reputation	Very Good
Easiness of Process	Easy

Table 5

The consumers in the mortgage market preferred fixed rate of mortgage with increasing structure of repayment of installments with more than 10 years of the mortgage payment time. The consumers preferred to take mortgage from a bank that is having a very good reputation in the market and the process of taking and returning the mortgage amount is easy and convenient for the consumer.

Most preferred level of repayment structure is increasing payment schedule that expresses that people wants to starts repaying of installments with smaller amounts and end up with bigger amounts according to his / her comfort and fluctuation in monthly income with fixed interest rate schedule and long term more than 10 years mortgage product so the combination of both cost oriented and service oriented level will be able to capture best market share.

Product 7 has the maximum market share averaged 10 % in the presence of optimal products profile that shows that the combination of P7 has most potential and most preferred able levels. While P 9 and P13 have maximum 11% share in existing market profile that does not have optimal product profile.

The most unlikely product profile or the product profile that none of the consumers in the mortgage market would like to opt for was the P4 card that was formed with the help of marketing engineering program of the Excel software. The product profile P4 is as under.

LESS PREFERRED CARD	
ATTRIBUTES	LEVELS
Type of mortgage	Adjustable Rate Mortgage
Repayment Structure	Increasing Payments
Length Of Mortgage	More than 10 Years
Approval Speed	Slow
Bank Reputation	Good
Easiness of Process	Hard

Table 6

The consumer would not want to take the mortgage option where the type of mortgage is the adjustable rate with increasing repayment structure and the length of the mortgage more than 10 years. Also the consumers did not want to take mortgage from a bank that has slow speed of approval even when the bank has good reputation and hard mode of the process.

It shows that the service oriented factors like speed of approval and easiness of process also affects the choice of a mortgage loan and it can give back the value and significance of cost oriented factor like type of mortgage which identify the interest rate mood and structure of monthly installments payment even if the lender has good reputation in the mortgage finance market of Turkey.

## 7. References

- i. Ansay, T. & Wallace, D. (2011). *Introduction to Turkish law*. Kluwer law international.
- ii. Boleat, Mark (1985), "National Housing Finance Systems, A comparative Study", ISBN 0-7099-3249
- iii. Brueggeman, W. B., & Fisher, J. D. (2008). *Real estate finance & investments*. McGraw-Hill/Irwin.
- iv. Callis, R. R. A & Kresin, M. (2011). RESIDENTIAL VACANCIES AND HOMEOWNERSHIP IN THE THIRD QUARTER 2011. Washington D.C.: U.S. Census Bureau News.
- v. Cash4OverseasProperty. (2016). Real Estate Outlook for Turkey. [Online] Available at <<http://www.cash4overseasproperty.com/property-news/turkey-property-market-outlook-in-2017-and-beyond>> [Accessed on 27-02-2017].
- vi. Chatterjee, S. & Eyigungor, B. (2011). A quantitative analysis of the US housing and mortgage markets and the foreclosure crisis.
- vii. Chiquier, L. & Lea, M. J. (Eds.). (2009). *Housing finance policy in emerging markets*. World Bank Publications.
- viii. Colton, K. W. (2002). Housing Finance in the United States: The Transformation of the U.S. Housing Finance System. Joint Center for Housing Studies Harvard University.
- ix. Courchane, M. J. & Giles, J. A. (2001). A Comparison of US and Canadian Residential Mortgage Markets. *Property Management*, 20 (5), 326-368.
- x. Crowe, C., Dell'Araccia, G., Igan, D. & Rabanal, P. (2013). How to deal with real estate booms: Lessons from country experiences. *Journal of Financial Stability*, 9(3), 300-319.
- xi. Facts, M. (2017). Topic: Mortgage industry. [online] [www.statista.com](http://www.statista.com). Available at: <<https://www.statista.com/topics/1685/mortgage-industry-of-the-united-states/>> [Accessed 26 Feb. 2017].
- xii. Global Property Guide. (2017). Property in Turkey. [Online] Available at <<http://www.globalpropertyguide.com/Europe/Turkey>> [Accessed on 26-02-2017].
- xiii. Green, P. & Srinivasan, V. (1978), "Conjoint analysis in consumer research: Issues and outlook", *Journal of Consumer Research*, vol 5, September 1978, pp 103–123.
- xiv. Green, R. K. & Wachter, S. M. (2007). The housing finance revolution. *The Blackwell companion to the economics of housing: The housing wealth of nations*, 414-45.
- xv. Hair, J., Anderson, R.E, Tatham, R.L, & Black, W.C. (1999), "Multivariate Data Analysis", (Fifth Edition ed.). Prentice-Hall International, Inc
- xvi. Hawtrey, K. (2009). *Affordable Housing Finance*. Palgrave Macmillan.
- xvii. Hepsen, A. (2008). Gelismis Ulkeler del potege Dayali Menkul Kiymetlestirme Uygulamalari. [Online] Available at <[http://www.alomaliye.com/2008/ali\\_hepsen\\_gelismis.htm](http://www.alomaliye.com/2008/ali_hepsen_gelismis.htm)> [Accessed on 02-03-2017].
- xviii. Hundert, Marcin, (2009), "Advantages and Disadvantages of the use of Conjoint Analysis in consumer preferences research". *Acta Universities Lodzeiensis*.
- xix. Loic, Chiquier & Micheal Lea, (2009), "Housing Finance Policy in the Emerging Market", the World Bank.
- xx. Smith, K. F.; Fennessy, P. F. (2011). "The use of conjoint analysis to determine the relative importance of specific traits as selection criteria for the improvement of perennial pasture species in Australia", *Crop and Pasture Science*. 62 (4): 355–65. doi:10.1071/CP10320

- xxi. Stephens, M. (2003). Globalisation and housing finance systems in advanced and transition economies. *Urban Studies*, 40(5-6), 1011-1026.
- xxii. Tripathi, S.N, & Siddiqui, M.H. (2010), "An Empirical Study of Tourist Preferences Using Conjoint Analysis", *International Journal of Business Science and Applied Management*, 5(2)
- xxiii. Yildirim, O. (2015). Turkish real estate market outlook. [Online] Available at <<https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/financial-services/performance/performancemagazine/articles/lu-turkish-real-estate-market-outlook-24052016.pdf>> [Accessed on 26-02-2017].