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**EMBRACING OUR SMART WORLD WHERE THE CONTINENTS CONNECT:  
ENHANCING THE GEOSPATIAL MATURITY OF SOCIETIES**

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EMBRACING OUR SMART WORLD WHERE THE CONTINENTS CONNECT:

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## Comparison of Factors Affecting the Plot Value According to Participants and Provinces

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## 1. Introduction

One of the most reliable investment tools in Turkey is real estate. A lot of innovations have been introduced in order to transform into cash the real estate quickly. These are;

- Real Estate Certificate
- Real Estate Investment Funds (REIF)
- Real Estate Investment Trust (REIT)

## 2. Theory

It is essential that the real estate valuation can be carried out in a healthy manner nationwide.

There are many criteria that affect value of the real estate.

Each criteria to be included in the valuation processes will bring about the economic provision of the real estate.

Therefore, it is very important to determine the criteria at the optimum level.

For this, survey application was actualized in Ankara, Konya and Kayseri provinces of Central Anatolia Region.

It was discovered ten factors affecting the value of plot improved land as a result of factor analysis.

The goal of this study are to compare factors according to participants and provinces.

## 3. Material

**Figure 1.** Study areas in the survey



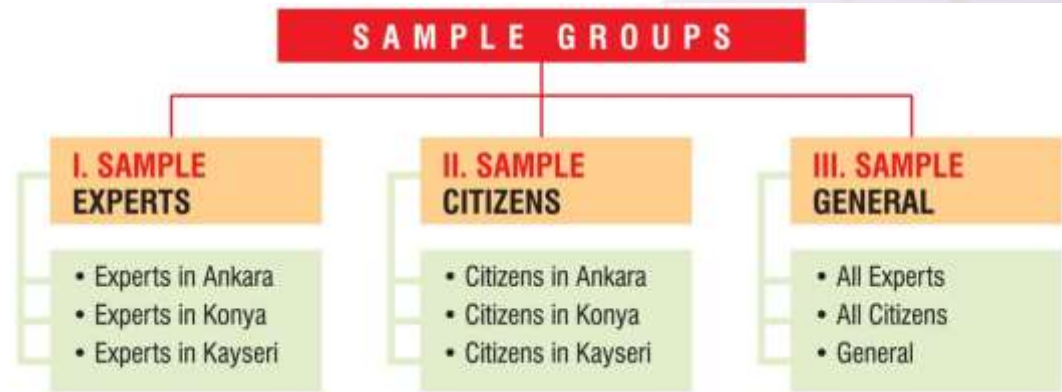
### The Study Area

Provinces in Central Anatolia Region in Turkey have been investigated in

- terms of population,
- the number of voters,
- population increase speed and net speed of migration,
- the number of sales,
- housing mortgage and
- the number of processes in zoning applications.

It has been decided to carry out the survey on the criteria affecting the plot value in the cities of Ankara, Konya and Kayseri

## 3. Material



**Figure 2. Sampling Groups**

- The groups that are divided into experts, citizens and general groups.
- Experts work on real estate valuation and citizens play a role in real estate purchases and sales.
- The answers of 559 experts and 1,915 citizen participants gathered as a result of the survey study.



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## 3. Material

### The Factors

Factor Analysis was applied to the 96x2,474 dimensional matrix consisting of survey data set.

**Table 1.** Reduced factors of criteria  
(FA-a: Total 69 criteria = 10 factors)

Factor	Name of Factor	The number of criteria
1	Unsanitary Areas	13
2	Public Institutions	11
3	Favourite Neighbourhood Information	8
4	Technical Infrastructure Services	5
5	Zoning Status	8
6	Entertainment and Cultural Areas	6
7	Public Transportations	7
8	Green Areas	4
9	Legal Restraints	4
10	Structuring Conditions	3
		<b>Toplam=69</b>

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## 4. Method

The **independent sample t-Test** compares among people from different universes.

However, in practice, more than two groups may need to be compared.

The appropriate test in such cases is the ANOVA test, which is a one-way ANOVA.

**One-way analysis of variance** is used to test whether the difference between two or more unrelated sample means is significantly different from zero.

**Table 2.** Analysis Methods

The number of group	Method
Two groups	The independent sample t-test
More than two groups	ANOVA

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## 5. Results

### General, Expert and Citizen Comparisons of Factors

- Unsanitary Areas
- Favourite Neighbourhood Information
- Zoning Status
- Entertainment and Cultural Areas
- Legal Restraints

It was seen that these factor scores differed significantly according to the expert and the citizen.

## 5. Results

### General, Expert and Citizen Comparisons of Factors

**Table 3.** Comparative sorting of factors according to general, expert and citizen

	General	Expert	Citizen
1	Zoning Status	Zoning Status	Zoning Status
2	Technical Infrastructure Services	Technical Infrastructure Services	Technical Infrastructure Services
3	Unsanitary Areas	Unsanitary Areas	Unsanitary Areas
4	Structuring Conditions	Favourite Neighbourhood Inf.	Structuring Conditions
5	Favourite Neighbourhood Inf.	Structuring Conditions	Green Areas
6	Green Areas	Green Areas	Favourite Neighbourhood Inf.
7	Public Transportations	Public Transportations	Public Transportations
8	Public Institutions	Public Institutions	Public Institutions
9	Legal Restraints	Legal Restraints	Entertainment and Cultural Areas
10	Entertainment and Cultural Areas	Entertainment and Cultural Areas	Legal Restraints

In the three samples, the first three, 7th and 8th rows are the same.

According to all experts, all citizens and the general situation, the differences in the 4th, 5th, 6th, 9th and 10th rows have inferred a difference of **50%** between these samples.

## 5. Results

### Factors compared to experts in Ankara, Konya and Kayseri

- Technical Infrastructure Services
- Zoning Status
- Public Transportations
- Green Areas
- Structuring Conditions

It is revealed that the scores of the factor differed significantly according to experts from those in Ankara, Konya and Kayseri.

## 5. Results

### Factors compared to experts in Ankara, Konya and Kayseri

**Table 4.** Comparatively sorting of factors according to experts in Ankara, Konya and Kayseri

	Ankara	Konya	Kayseri
1	Zoning Status	Zoning Status	Zoning Status
2	Technical Infrastructure Services	Technical Infrastructure Services	Technical Infrastructure Services
3	Unsanitary Areas	Unsanitary Areas	Unsanitary Areas
4	Favourite Neighbourhood Inf.	Favourite Neighbourhood Inf.	Favourite Neighbourhood Inf.
5	Structuring Conditions	Public Transportations	Structuring Conditions
6	Green Areas	Structuring Conditions	Green Areas
7	Public Transportations	Green Areas	Public Institutions
8	Public Institutions	Public Institutions	Public Transportations
9	Legal Restraints	Legal Restraints	Legal Restraints
10	Entertainment and Cultural Areas	Entertainment and Cultural Areas	Entertainment and Cultural Areas

According to the experts in Ankara, Konya and Kayseri, the first four and the last two factors are the same.

According to the experts in Ankara, Konya and Kayseri, the fact that the 5th, 6th, 7th and 8th rows are different indicates that there is a difference of **40%** among these samples.

## 5. Results

### Factors compared to citizens in Ankara, Konya and Kayseri

- Unsanitary Areas
- Public Institutions
- Favourite Neighbourhood Information
- Technical Infrastructure Services
- Zoning Status
- Structuring Conditions

It was seen that significantly differed according to citizens in Ankara, Konya and Kayseri.

## 5. Results

### Factors compared to citizens in Ankara, Konya and Kayseri

**Table 5.** Comparatively sorting of factors according to citizens in Ankara, Konya and Kayseri

	Ankara	Konya	Kayseri
1	Technical Infrastructure Services	Zoning Status	Zoning Status
2	Zoning Status	Technical Infrastructure Services	Technical Infrastructure Services
3	Unsanitary Areas	Unsanitary Areas	Unsanitary Areas
4	Structuring Conditions	Structuring Conditions	Green Areas
5	Green Areas	Favourite Neighbourhood Information	Structuring Conditions
6	Favourite Neighbourhood Inf.	Green Areas	Favourite Neighbourhood Inf.
7	Public Institutions	Public Transportations	Public Institutions
8	Public Transportations	Public Institutions	Public Transportations
9	Entertainment and Cultural Areas	Entertainment and Cultural Areas	Entertainment and Cultural Areas
10	Legal Restraints	Legal Restraints	Legal Restraints

According to the citizens of Ankara, Konya and Kayseri, it was observed that the 3rd and 9th-10th factors did not change their ranks.

Other factors (1, 2, 4, 5, 6, 7 and 8th rank) show differentiate according to provinces and there is a **70%** difference among citizens in Ankara, Konya, and Kayseri

## 6. Conclusion

The criteria affecting the plot value of real estate types vary from country to country, from region to region and from person to person.

It can be seen that the region is subject to many changes such as demographics, education, income, immigration, crime, social structure, lifestyles, culture and traditions as well as topographic, geological and meteorological characteristics, noise and air pollution.

In this study, it has been proved that the factors that consisting of the criteria differ statistically significantly among the experts and citizens in Ankara, Konya and Kayseri.

## 6. Conclusion

Although the criteria affecting the plot value vary according to the person, those with considerably the economic impact the value should be determined in a clear, obvious and standard format.

These criteria should be chosen by considering statistical significance.

Otherwise, the collection of the smallest details about the real estate will not be significant in terms of time, labour and cost.

Similar implementation, agricultural lands, housing, industry and etc. real estates as well should be carried out.



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**Mevlana Tomb and Museum, Konya/Turkey**

Thank you  
for listening



**A Mevlevi**

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