

ANALYSING ACCESS TO BASIC URBAN SERVICES IN PLANNED AND
UNPLANNED AREAS FROM A SPATIAL JUSTICE PERSPECTIVE: THE
CASE OF ANKARA, MAMAK, MUTLU NEIGHBORHOOD

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ABSTRACT

ANALYSING ACCESS TO BASIC URBAN SERVICES IN PLANNED AND UNPLANNED AREAS FROM A SPATIAL JUSTICE PERSPECTIVE: THE CASE OF ANKARA, MAMAK, MUTLU NEIGHBORHOOD

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Spatial justice is a concept that aims to promote a fair distribution of resources in urban areas and equality of social opportunity. It empowers urban planners and decision-makers to understand inequalities in urban areas and to formulate policies to reduce these inequalities. Inequalities in cities are increasing exponentially with the rapid development of cities. Slums, which are born as a result of rapid urbanization, are areas where these inequalities are visibly felt. Slum areas, which develop irregularly and unplanned, appear as areas deprived of even basic urban service provision. Inequality in service provision negatively affects the quality of life of residents. This thesis presents a comprehensive survey-based analysis of basic urban services provided in Mutlu Neighborhood, aiming to understand the perceptions and satisfaction levels of people living in planned and unplanned areas. The analysis was conducted through a 5-point Likert scale survey that assessed the opinions and preferences of residents living in the planned and unplanned/slum areas and analyzed and interpreted with SPSS. The experiences of the participants, the difficulties or conveniences they faced were analyzed and the results were evaluated comparatively from a spatial justice perspective. With the survey, a new scale has

been designed and in the light of the findings, the current situation in the provision of basic urban services in Mutlu Neighborhood and the conditions that result in spatial injustice have been revealed. These analyses can support efforts to improve spatial justice not only in the Mutlu Neighborhood, but also in cities of today, and provide guidance to local authorities. By inspiring future research, this study can be a step towards a more just urban future.

Keywords: Spatial Justice, Accessibility, Service Provision, Slum, SPSS



ÖZ

PLANLI VE PLANSIZ ALANLARDA TEMEL KENTSEL HİZMETLERE ERİŞİMİN MEKANSAL ADALET PERSPEKTİFİNDEN ANALİZİ: ANKARA, MAMAK, MUTLU MAHALLESİ ÖRNEĞİ

Bilge, Sunay
Yüksek Lisans, Şehir Planlama, Şehir ve Bölge Planlama
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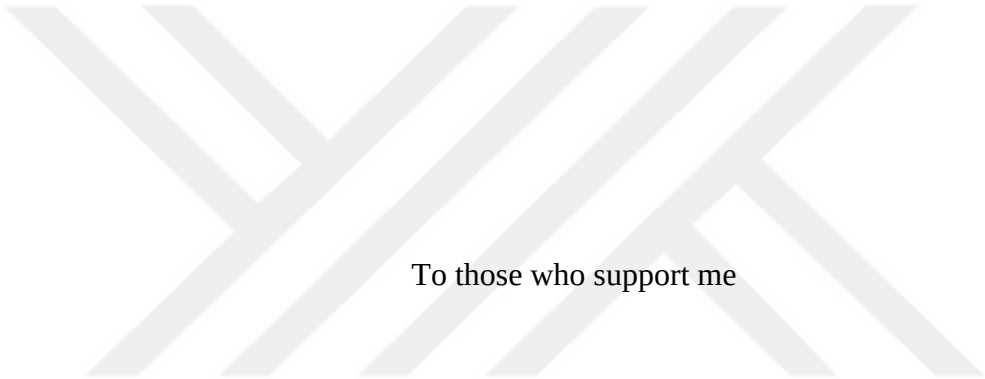
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Mekansal adalet, kentsel alanlarda kaynakların adil dağılımını ve fırsat eşitliğini teşvik eder. Şehir plancılarına ve karar alıcılara kentsel alanlardaki eşitsizlikleri anlama ve bu eşitsizlikleri azaltmaya yönelik politikalar oluşturma yetkisi verir. Kentlerdeki eşitsizlikler, kentlerin hızla gelişmesiyle birlikte katlanarak artmaktadır. Hızlı kentleşmenin bir sonucu olarak ortaya çıkan gecekondu bölgeleri, eşitsizliklerin gözle görülür biçimde hissedildiği alanlardır. Düzensiz ve plansız gelişen gecekondu alanları, temel kentsel hizmet sunumundan dahi yoksun alanlar olarak karşımıza çıkmaktadır. Hizmet sunumundaki eşitsizlik, bölge sakinlerinin yaşam kalitesini olumsuz yönde etkilemektedir. Bu tez çalışması ise, Mutlu Mahallesinde bulunan planlı ve plansız alanda yaşayan insanların algılarını ve memnuniyet düzeylerini anlamayı amaçlayan, mahallede sunulan temel kentsel servislerin ankete dayalı kapsamlı bir analizini sunmaktadır. Analiz, planlı alanda ve plansız/gecekondu alanında yaşayanların görüş ve tercihlerini değerlendiren ve SPSS ile analiz edip yorumlayan beşli Likert ölçekli bir anket aracılığıyla gerçekleştirilmiştir. Katılımcıların deneyimleri, karşılaştıkları zorluklar ya da kolaylıklar analiz edilip sonuçlar mekânsal adalet perspektifinden karşılaştırmalı

olarak deęerlendirilmiřtir. Yapılan anket ile hem yeni bir ölçek tasarlanmış olup, hem de elde edilen bulgular ışığında Mutlu Mahallesiindeki temel kentsel servis sunumundaki mevcut durum ve mekânsal adaletsizliğe yol açan durumlar ortaya çıkarılmıştır. Bu analizler, sadece Mutlu mahallesinde deęil, günümüz kentlerinde mekansal adaletin iyileřtirilmesine yönelik çabaları destekleyebilir, yerel yönetimlere yol gösterebilir. Bu çalışma, gelecekteki arařtırmalara ilham vererek daha adil kentsel gelecek için bir adım olabilir.

Anahtar Kelimeler: Mekansal Adalet, Eriřilebilirlik, Servis Sunumu, Gecekondu, SPSS





To those who support me

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CHAPTER 1

INTRODUCTION

Today, the notion of spatial justice has gained significant importance for countries, politicians, planners, academics, and various stakeholders. This concept primarily encompasses the right of individuals to equitable access to services and equal opportunities. Spatial justice goes beyond mere physical access and encompasses social, economic, and environmental factors. Access to fundamental services like education, healthcare, transportation, and green spaces profoundly affects people's quality of life and overall well-being. Therefore, ensuring spatial justice is crucial in reducing inequalities within urban areas and fostering sustainable urban living. However, achieving equal access, particularly in low-income and disadvantaged regions, is becoming increasingly challenging in the developing and rapidly urbanizing world. While cities provide numerous opportunities, they also contribute to the emergence of social and economic disparities.

While urbanization has roots in ancient times, the rapid expansion of cities occurred most notably during the nineteenth-century Industrial Revolution, which was marked by increased public and private investments in response to infrastructure concerns, including transportation, security, and health, ultimately transforming the urban landscape (Hall, 2014). However, urban expansion and infrastructure development during this period often brought with it social and economic inequalities. These improvements in access to urban services often led to divisions in terms of income and social status. This has raised important questions about quality of life in cities and urban justice.

Beyond physical space, the city is a dynamic world that is in a constant state of becoming, has many faces, is shaped by interacting with the individuals it contains,

and is home to a field of struggle that cannot be controlled by laws (İçen, 2019). Cities are not just planned infrastructure and architectural elements; they also represent a complex social space where people, cultures, values, and interactions come together. In this context, the dynamics of cities, which cannot be fully controlled by laws, offer the potential for diversity, creativity, and innovation. As a result, cities are dynamic spaces that are in constant change, multifaceted and complex, with both potential opportunities and challenges that need to be managed. People interacting in this environment and shaping the city is an important factor in urban planning and management.

In recent years, societies have gravitated towards cities due to the advantages they offer. Nevertheless, this wave of migration has brought about numerous issues in urban areas, with the emergence and proliferation of slum and squatter areas being one of the most significant problems. Most of the slum dwellers have left the rural areas due to lack of land and employment opportunities and have started to come to the cities with the hope of establishing a better harmony with the urban environment instead of the deteriorated harmony in the rural environment (Tekeli et al., 1976). The central business district of the city is a place where those without job security can create various job opportunities for themselves (Tekeli et al., 1976). Slum neighborhoods characterized by their low-income and disadvantaged status started to form in cities. They suffer from a lack of basic infrastructure, transportation, and housing, or substandard services.

In light of these urban dynamics, the objective of this thesis is to conduct and present a comparative analysis, utilizing survey analysis and assessment of service accessibility, between a planned area and an unplanned slum area, with a focus on spatial justice issues. The research process will involve field studies and a survey analysis, which is one of the main data collection methods. In the planned and unplanned areas of Mutlu Neighborhood, factors such as access to essential services, infrastructure, and transportation facilities will be evaluated. An analysis will be carried out to assess service accessibility, living conditions, and social factors in the

neighborhood, and residents' lived experiences of their environment will be understood through their responses to survey questions

In summary, this thesis constitutes a significant and unique contribution by conducting an extensive investigation into the analysis of spatial justice within planned and slum areas. The research outcomes hold substantial implications for urban planning, policy-making, and decision-making processes, as they will be thoroughly evaluated and integrated into these domains. By creating a new survey scale, the thesis also provide a guidance for further research.

By shedding light on the principles and practices that underpin spatial justice, the thesis strives to shape the discourse surrounding urban development, ensuring that considerations of fairness and equal access to resources and opportunities are at the forefront. Ultimately, the research presented in this thesis not only adds to the existing body of knowledge but also serves as a valuable resource for professionals, policymakers, and stakeholders seeking to enhance spatial justice in urban environments. This thesis aims to identify and address current injustices in the delivery of urban services in cities. Through its in-depth analysis and conclusions, it intends to be a driving force for positive change by promoting a fair and sustainable distribution of essential urban services.

1.1 Description of the Problem

The city, with all its changes and transformations, is the spatial reflection of the social, cultural, economic, and physical conditions of the environment in which it was born (Uğurlu, 2010). The rapid development of cities has brought with its efforts to achieve democratic ideals that aim to ensure equal participation and fair sharing of the city's various assets. Thus, the urban environment is becoming an important arena where conflicts arise over the fair and democratic utilization of its resources (Schwab, 2018). This situation forms the focal point of debates on how to shape the principles of justice and democracy regarding the use of resources and opportunities

in the city. Inadequate implementation of the principles of justice and democracy in the utilization of resources and opportunities in cities creates a basis for social inequalities, and these inequalities may lead to tensions and conflicts between various social groups. These conflicts can be interpreted as a return of the injustices experienced in the cities. The slum phenomenon, which comes along with urbanization, also takes its share from the injustices experienced in cities.

The reality of slums in underdeveloped countries is a reflection of the development efforts within the market mechanism, where dependent economies are evident and which leads to the emergence of a dual economic structure based on the import of technology in the agricultural and industrial sectors, which leads to the polarization of the imported agricultural technology in the land, freeing labor in rural areas and triggering rapid migration to the cities (Tekeli et al., 1976). The tendency of slum areas to have lower income levels, denser populations and limited infrastructure resources compared to planned areas may hinder equitable access to basic urban services (Figure 1). This shows that urban planning policies and settlement arrangements have the potential to affect different socio-economic groups.

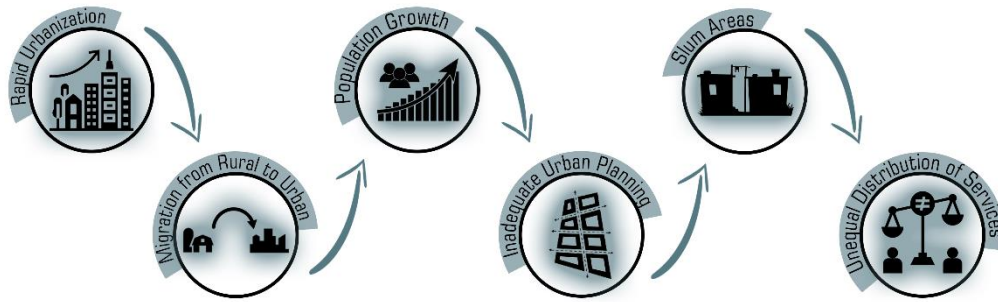


Figure 1. Schematic explanation of the problem (Prepared by the author)

Türkiye, with a population of more than 85 million people, suffers from socioeconomic inequalities in each city. Ankara, as the capital city of Türkiye, has its share of urban segregation and inequalities. In the vast geography of Ankara, economic and social differences between different neighborhoods are evident. This

leads to various inequalities in quality of life, access to infrastructure services, and other important social indicators among the people living in the city. These gaps between different socio-economic groups within Ankara's population are an important factor affecting overall development efforts in the city.

Mutlu Neighborhood in Ankara, Mamak district is a relatively poor socio-economic neighborhood, which includes both planned areas and unplanned slum areas. In this thesis, it is aimed to address the basic urban service provision in these two areas within the neighborhood from a spatial justice perspective. In this context, understanding and analyzing the differences between the planned and unplanned areas of Mutlu Neighborhood aims to highlight the spatial injustices faced by residents. This approach will provide a comprehensive framework for analyzing spatial justice issues in various regions within the urban landscape and provide a nuanced understanding that reflects the perspectives and experiences of residents.

1.2 Aim and Scope of the Thesis

Cities can survive as long as the human population they harbor exists. The opportunities and conveniences that a city offers to the people it harbors make urban life much easier for those who live there. The quality of urban life can be measured by the satisfaction of the inhabitants with the city they live in. This satisfaction is based on a variety of factors, such as the availability of jobs, transportation, and basic needs such as education and health services. These basic needs and services are the main factors that determine the quality of life of an urban dweller.

Basic services are compulsory in cities and should be provided in a quality manner, which is the expectation of many people who migrate to the city. However, sometimes there are deficiencies in the provision and quality of services due to reasons such as overpopulation and insufficient resources. In this study, this deficiency in service provision will be taken into consideration. Generally, urban

areas lacking basic services are in poor conditions and urban areas in poor conditions lack basic services, i.e. both situations are mutually reinforcing.

In general, geographical research is carried out at various scales, aiming to improve the living conditions of citizens (Ghaderi Hajat et al., 2022). Inequitable distribution of public services and facilities can have devastating spatial and social consequences in the short and even long term. The lack and inequitable distribution of public services that affect the quality of space and the living standards and welfare of individuals is an important problem that needs to be tackled. In this study, it is intended to approach the problem more closely and from the local level by focusing on the neighborhood scale. The research presented in the thesis aims to identify inequalities in service provision at the neighborhood level and thus make the problems more visible, especially for planners and politicians.

An important focus of this thesis is to understand how the social, economic and spatial changes brought about by urban transformation and urbanization are reflected in neighborhoods with diverse socio-economic characteristics, such as Mutlu Neighborhood, and to evaluate these effects in terms of spatial justice. The research is expected to play an important role in revealing the differences in access to urban services between planned and unplanned areas, identifying spatial injustices and providing information on this issue.

The main aim of this thesis study is *“to assess indicators of spatial justice in planned and unplanned areas in order to compare and evaluate the allocation and accessibility of basic urban services”*.

The most important objectives of this thesis study are as follows:

- To evaluate the distribution of basic urban services in Mutlu Neighborhood,
- To identify and analyze disparities in the allocation and accessibility of basic urban services between planned and unplanned areas,

- To increase the awareness of urban planners and managers in pursuit of a balanced distribution of basic urban services in order to enhance the citizens' quality of life and sustainability of the environment they live in.

Overall, this thesis aims to contribute to the understanding of spatial justice issues in urban areas, particularly focusing on the allocation, accessibility, and quality of basic urban services in planned and unplanned areas.

1.3 Assumption and Research Questions

In this study, it is assumed that “*basic urban services are inadequate in slum areas compared to planned areas*”. This assumption stems from the idea that planning and settlement policies may adversely affect the service infrastructure in slum areas and cause potential inequalities in access to basic needs for those living in these areas. In this context, it is aimed to make an assessment of the state of basic urban services in slum areas and to better understand the current situation. This assumption aims to contribute to the debate on social and spatial justice and urban planning by providing a basis for understanding the deficiencies in service provision in these areas and the effects of these deficiencies on potential inequalities in residents' access to basic needs. At the same time, the thinking underlying this assumption shapes the basic motivation of this thesis study, which aims to understand and address service inequalities in urban areas.

With the aim of this study, the following research questions and their sub-questions have to understand the inequalities in distribution of services and accessibility:

- Which indicators can be used to identify differences in access to basic urban services in planned and unplanned areas?
 - Which urban services should be focused on in order to identify differences in access to basic urban services by residents of planned and unplanned areas?

- Are basic urban services equally distributed between planned and unplanned areas in Mutlu Neighborhood?
 - What are the differences that affect spatial justice in planned and unplanned areas?

In the light of these research questions, it can be seen that there is differential access to basic urban services, despite the fact that these services must be accessible to everyone living in an area. This study argues that the distribution of basic urban services should be accessible to all without any discrimination. However, the analysis aims to reveal inequalities in access, with the current situation being contrary to this ideal. This highlights the need for further investigation and intervention to address the inequalities identified. In this context, efforts to understand and address the roots of inequalities can play a critical role in increasing social welfare and improving the wellbeing and quality of life of every individual living in urban areas.

1.4 General Methodology of the Thesis

In the thesis, a descriptive-analytical approach is adopted. The approach aims to provide a comprehensive understanding of the accessibility of urban services by systematically examining both qualitative and quantitative aspects. Through rigorous data collection, analysis and interpretation, this approach aims to provide a valuable perspective in understanding the intricacies of urban service delivery and its impact on community satisfaction.

In this study, a four-step methodological flow was followed to assess the accessibility of urban services (Figure 2).

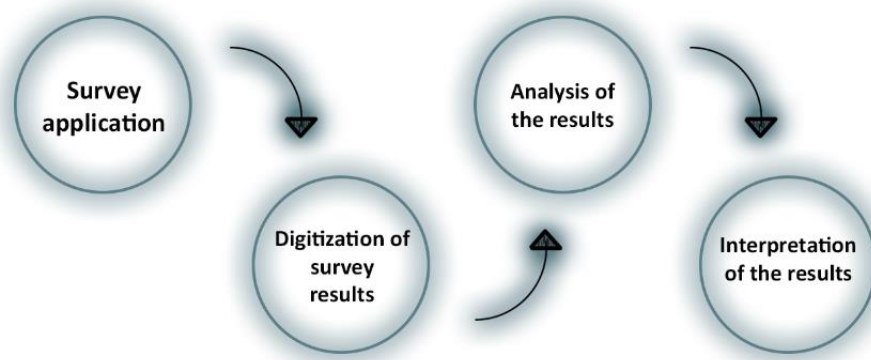


Figure 2. A general look at the methodological steps (Prepared by the author)

In the first stage, a suitable survey form was prepared by examining the definitions of urban services and accessibility indicators in the literature. A survey consisting of 40 questions based on 5-point Likert scale was designed for each urban service. In addition, an open-ended question was added to provide an overall assessment for each service. The surveys were administered in two different groups in the neighborhood, representing planned and unplanned areas. Therefore, survey participants were selected using cluster sampling. In total, 42 respondents were surveyed. Afterwards, the data obtained from the surveys were processed using SmartPLS and SPSS programs for digitization. Subsequently, the validity and reliability of the survey scale were evaluated with various statistical tests. After verifying the validity and reliability of the scale, the data were analyzed. Based on the results of the analysis, the findings were interpreted in detail and meaningful conclusions were drawn. These results answer the main objectives and research questions of the study. These steps summarize the basic methodological approach of the thesis.

The methodology of this study is designed to analyze access to basic urban services in planned and unplanned areas in Mutlu Neighborhood of Mamak, Ankara from a spatial justice perspective. In line with this purpose, it is possible to explain the methods of the study as follows:

- **Survey Application:** The survey will be the main data collection tool of the study. Using a 5-point Likert scale, it is designed to assess neighborhood residents' access to basic urban services, quality of services, and distribution of services. The survey will be administered to a randomly selected sample and the views and experiences of the participants will be collected.
- **Sample Selection:** A sample of individuals with different socio-economic profiles living in the planned and unplanned areas of Mutlu Neighborhood will be selected. This sample will be selected in a balanced way to reflect the demographic and socio-economic structure of the neighborhood by using cluster sampling.
- **Data Analysis:** The data obtained from the surveys will be analyzed using statistical analyses. Survey results will be analyzed and interpreted using statistical methods such as frequency analysis, percentages and mean values. These analyses will help to identify and understand existing spatial inequalities in access to basic and qualified urban services.

Combining these methods will provide a comprehensive analysis and descriptive-analytical study to understand and identify spatial inequalities in access to urban services in Mutlu Neighborhood. The findings will provide essential information for urban policy makers, local governments and civil society organizations to develop and improve spatial justice.

1.5 The Outline of the Thesis

The structure of this thesis revolves around five key chapters, each contributing distinct elements to enhance the overall understanding of spatial justice and service accessibility. The "Introduction" chapter serves as the foundation, delineating the problem at hand, outlining the thesis's purpose and scope, and establishing the assumptions and research questions guiding the study.

Following this, the "Literature Review" chapter meticulously examines relevant scholarly works, with a primary focus on justice, social justice, and spatial justice concepts. These concepts are intricately interwoven, providing a comprehensive understanding, while specific attention is dedicated to the spatial justice implications within the context of service provision and slum-related challenges.

Moving on to the third chapter, a detailed exploration of the study area and the chosen methodology is presented. The Mutlu Neighborhood in Mamak, Ankara, acts as a case study, offering insights into its development and current status. The methodology section delves into the details of the field study and collected data. Also, the methodologies used to analyze the data is also represented in this section.

In the fourth chapter, the collected data is subjected to a comprehensive statistical analysis where various techniques and methodologies are applied to delve deeper into the data set. along with the analysis of the data, the patterns, trends and relationships underlying the data are also sought to be uncovered through the interpretation of the results.

Finally, the fifth chapter serves as a crucial synthesis, addressing the challenges encountered during the study and identifying gaps in the existing literature. The concluding section presents overarching insights into spatial justice and the accessibility of services, drawing together the various threads explored throughout the thesis. This comprehensive structure ensures a holistic exploration of the subject matter, from conceptual foundations to practical applications and implications for spatial justice.

CHAPTER 2

LITERATURE REVIEW

In this chapter, a detailed literature review has been conducted on the main focal points of the thesis. Firstly, the concept of justice is analyzed from a broad perspective and its communal, spatial and social dimensions are examined. The general understanding of justice is emphasized and the basic principles of individuals' rights, equal treatment and the fight against injustice are explained. The literature review will then turn to the concept of social justice and focus on how to distribute rights, opportunities and resources fairly within social structures. The historical evolution of social justice and how it has been shaped, especially as a concept advocating state intervention, will be emphasized and the role of justice in the creation of social order will be understood. Following this process, the issue of spatial justice will be addressed and the fair distribution of services in urban areas, especially in the context of the provision of basic urban services and slum development, will be analyzed to examine how spatial justice is shaped. This literature review aims to reveal the scope of the thesis in detail with past and current research on different dimensions of justice, basic urban services and slum development.

2.1 Justice and Social Justice

Justice is one of the most important building blocks of a society and even of individuals. The concept of justice can be interpreted differently in relation to people, nature, animals and property. Justice means that everyone's rights are respected, treated equally and not unfairly. As Davy (1997) states that justice, which is

sometimes expected to include more than just legal compliance, needs not just respect to the law but also the inherent fairness of the judicial system (as cited in Moroni, 2019). Justice contends that making judgements and doing acts based on reasonable expectations becomes unjust or unfair when arbitrary alterations are placed on the underlying conditions or norms (Campbell, 1973). Diverse definitions of justice exist, yet Miller (2017) claims that a shared understanding can be gained from a sixth-century Roman Law codification, which defines justice as the unshakable and permanent determination to pay each individual their lawful due.

As mentioned in Moroni (2019), according to Frankena (1962), justice is fundamentally about distributing various elements like responsibilities, benefits, positions, opportunities, penalties, rewards, roles, status, and more to individuals based on their possession of specific essential qualities such as personal capability, deservingness, merit, social standing, or wealth. Hart (1961) mentions that the fairness or unfairness of social laws brings an extra burden or benefit to individuals (as cited in Moroni, 2019). In the context of justice, Frankena (1966) questions whether society should prioritize helping gifted individuals achieve their fullest potential for a better life, even before or alongside others, provided that support is extended to all. In other words, it can be said that in order to ensure justice in society, individuals should be brought to an equal level. At this point, it is understood that it is essential to treat individuals fairly and to regulate the laws accordingly. In this way, a quality living environment can be provided by removing the burden on individuals and societies.

According to Rawls (1971; 1993; 2001), there are two basic principles of justice: The initial principle advocates a wide range of essential liberties for everyone, whereas the second principle, specifically the difference principle, asserts that inequalities in social and economic aspects should be structured in a way that maximizes advantages for the least privileged members of society. Especially the “difference principle” of justice emphasizes equality among individuals within a society with different backgrounds. He contends that the main focus of justice is the "fundamental framework of society", which encompasses the way in which the major

social institutions that govern the distribution of benefits arising from social co-operation over time allocate basic rights and responsibilities (Rawls, 1971; 1993; 2001). This definition actually stresses the significance of urban planning policies in terms of allocation of resources and amenities within an urban area. In this respect, urban planners have a crucial role about justice issues. According to Kiernan (1983), the main aim of an urban planner must be to clearly extent who is going to benefit or not from a planning decision. Equitable practices in spatial planning align with justice theories and the principles of common property resources, which argue that justice entails ensuring that every individual has the chance to utilize communal resources to fulfill their own requirements (Rawls, 1971; Ostrom, 1990). Moreover, planning decisions should be determined by taking into account disadvantaged ones in a society at first (McConnell, 1981, as cited in Moroni, 2019).

In this regard, it would be appropriate to discuss the concept of justice in urban areas. The issue of justice in cities has long been discussed and researched in many disciplines such as geography and urban planning. In this context, it is necessary to focus on concepts such as just city, right to the city and so on. The 1960s and 1970s movements addressed issues like identity politics, rights to the city, rights to difference, and social justice, and have been of interdisciplinary significance, including in the field of geography (Dikeç, 2001). Discussions about justice about spatial processes (such as globalization, urbanization, suburbanization, gentrification, immigration, environmental issues, and hazards) that can result in social outcomes such as inequality, segregation, exclusion, and marginalization occasionally arise in the realm of geography (Israel & Frenkel, 2017). Cities, with their complex and multi-layered structures, harbor a series of justice problems in issues such as the distribution of resources, social inequalities, access opportunities and environmental sustainability. Therefore, focusing on how to define a just city, what the concept of the right to the city means and similar concepts will form the basis of an important understanding of how to ensure justice in urban areas.

Moroni (2019) argues that three issues are important for understanding the concept of just cities: urban institutions, the missing overlap between social justice and

distributive justice, and the divide in the perception of the concept of social justice. Fainstein (2010) outlines principles in "The Just City" for guiding and assessing urban planning toward a socially just city, emphasizing the centrality of equity in the fair allocation of costs and benefits from public policy, and incorporating considerations of diversity and democracy. According to her perspective, the notion of a just city allows for relatively uniform neighborhoods, provided that their limits remain permeable and efforts are made to prevent increased segregation and significant displacement. This approach is a nuanced reflection of an understanding for the creation of inclusive and equitable urban environments. Together with efforts to promote diversity and equality within city boundaries, this reflects the basic principles of a just city model.

Although the concept of justice forms the basis of societies, it is a phenomenon that is not easy to access. Achieving justice involves ensuring a fair allocation of resources among both social and spatial units within cities, with consideration for the population's requirements and the principle of geographical equity (Ghouchani et al., 2022). In connection with the concept of a just city, this process involves not only the equitable sharing of resources, but also meeting the needs of various social groups within the city, ensuring a geographically fair layout. In this context, a just city aims not only at the equitable sharing of economic resources, but also at the creation of a livable and inclusive urban environment. This approach emphasizes that justice is not only a principle but also a guiding principle for urban planning and management.

Justice forms the cornerstone of society and provides a more general framework. On the other hand, according to Cramme and Diamond (2009), the application of justice as a moral virtue to societal structures, with an emphasis on ensuring a fair allocation of rights, opportunities, and resources within a specific community, is referred to as social justice (as cited in Madanipour et al., 2022). While the concept of justice refers to the totality of these rights and opportunities, social justice is concerned with how they are allocated among social groups. Conventionally, social justice pertains to the allocation of advantages and disadvantages within a community (Elster, 1992). In

the same way, Martens (2006) describes social justice as the ethically appropriate allocation of advantages and liabilities among individuals within a society. The contemporary notion of social justice, emphasizing the potential and imperative of reducing poverty and establishing an egalitarian society, originated in the late 18th century and was further expanded upon by socialist and utilitarian philosophy in the 19th century (Fleischacker, 2004). Moreover, according to Miller (1999), social justice emerged in the literature as a term around the end of the 19th century, when the concept of a limited society with powerful institutions evolved and prompting progressive forces to advocate for distributive justice from national governments.

Over time, the concept of social justice has come to be seen by some as the dominant political ideal of the twentieth century (Jackson, 2005). The issue of justice revolves fundamentally around power, and the original and political interpretation of social justice emphasizes this connection (Forst & Flynn, 2014, p. 195). The practical implementation of social justice involves the responsibility and authority of the state. According to Moroni (2019), the real subject in the concept of social justice is public institutions. If any situation is to be guided within the framework of social justice, it must be done by the institutions of the state, because these institutions are the paradigmatic subject of social justice (James, 2005). This is because state institutions are those that can hold power in their hands and are authorized to use it.

There is some disagreement in the literature on the definition of social justice. The concept of social justice is assumed to be related to the concept of equality, but how this equality should be formulated and the relationship between social justice and equality is still open to debate (Wolff, 2008). Miller (1999) has adopted a questioning attitude to define the concept of social justice and to understand its principles. According to him, there are some important questions to be asked before discussing the principles of social justice. Some of these questions are listed below:

- What are the specific benefits and drawbacks, advantages and disadvantages, which social justice aims to fairly distribute?
- If social justice pertains to distribution, what exactly is meant by this term?

- Is there a need for an entity responsible for distributing resources to determine the just or unjust outcomes we are attempting to evaluate?
- Should the principles of social justice encompass all individuals, or is it appropriate to include only specific segments of the population?

These questions examine a framework for achieving social balance and equality by questioning the basic concepts of social justice. The first question, about how certain benefits and disadvantages, advantages and disadvantages, should be fairly distributed, plays an important role in defining the purpose and scope of social justice. The second question allows for a deeper understanding of what the term means in relation to the distribution of social justice. The third question discusses the practice of social justice, addressing the issue of whether there should be a regulatory or distributive agency to assess just or unjust outcomes. Finally, the question of whether these principles should extend to all individuals plays an important role in shaping the general principles and social goals of justice. Together, these questions provide a comprehensive perspective for assessing the meaning, applicability and effectiveness of social justice.

A common ideal of social justice, which seeks a fair redistribution of resources and opportunities for individuals disadvantaged by the market, adopts a needs-based approach and is associated with the provision of this redistribution by the state rather than charitable organizations (Jackson, 2005; Raphael, 2001). Individuals and societies disadvantaged by the market have created the need for intervention. It can be assumed that this intervention comes through social justice. The concept of social justice became intricately linked with the nation-state and its involvement in societal affairs, as evidenced in the subsequent evolution of the welfare state (Madanipour et al., 2022). However, market conditions, past and present, do not create an environment favorable to the full realization of social justice. Especially in urbanization and globalization processes, social justice alone has not been considered sufficient. The theoretical prevalence of approaches such as Marxism, utilitarianism and positivism has hampered the development of a political discourse oriented on justice (Fleischacker, 2004). In fact, social justice emerged as a reaction

and measure to the problem of social injustice, and this concept was seen as an unnecessary state intervention and was highly criticized (Madanipour et al., 2022).

Harvey (1975, p. 107) defines three principles for social justice. When applied to geographical locations, the principles of social justice can be encapsulated in the following manner:

1. The distribution of regional investments and the arrangement of space must align with the needs of the populace, necessitating the establishment of socially equitable methods to assess and determine these needs, and the disparity between needs and actual allocations serves as an initial gauge of territorial injustice within the current system.
2. An improved form of spatial organization and allocation entails a territorial resource distribution configuration that not only meets needs locally but also generates additional benefits in neighboring areas via spillover effects, multiplier impacts, and similar mechanisms, primarily benefiting from need fulfillment and secondarily contributing to overall output.
3. Divergences in territorial investment patterns may be appropriate if they are purposefully designed to solve specific environmental problems that would otherwise impede the development of a system capable of meeting demands or contributing to public welfare.

In particular, as emphasized in the first principle, when assessing whether resources are allocated in a manner appropriate to the needs of a particular region, it also reveals the presence or absence of socio-economic inequalities and regional injustices. This difference between needs and allocation therefore provides an important starting point for the formulation of more equitable and balanced policies on territorial planning and resource management. The model presented in the second principle can be a more effective means of not only meeting local needs, but also providing a wide range of economic and social benefits through spillovers and multiplier effects to neighboring regions. In this context, such a model of spatial organization can be considered as a step towards addressing regional development and resource management strategies from a more comprehensive perspective. The

third principle emphasizes the adoption of a flexible and targeted approach, taking into account where special circumstances or environmental constraints in a particular region may prevent the development of a system that would generally meet needs or benefit the public. Thus, participatory planning of regional investments in line with environmental sustainability allows for the development of more effective and equitable strategies that take into account the unique characteristics and environmental challenges of the region.

2.2 Spatial Justice

Spatial planes where people coexist contain a multi-factorial structure. In this complex structure, there are problems as well as opportunities. Inequality between individuals and societies is one of these problems. These inequalities make themselves felt in many areas in space. In cities, differences in terms of economic, physical and social wellbeing of urban dwellers may differentiate between people to people or place to place. While the economic status of urban dwellers may be the reason for this difference, the quality of the physical environment, the accessibility of urban dwellers to qualified and adequate urban services and public facilities, urban infrastructure and transportation are also important factors for understanding the problem of justice in cities (Setianto & Gamal, 2021).

Because all human spatial formations are socially constructed, social processes do not take place consistently throughout space (Lefebvre, 1991). These social processes, which have a great impact on the shaping of space, create an unfair geography, and this geography creates a profit and loss structure due to the differences in wealth and power status between individuals (Soja, 2010). For a long time, social researchers have been aware of the spatial component of social processes, as evidenced by the writings of academics such as Park, Burgess, and McKenzie in 1925 as stated by Madanipour et al. (2022). However, according to Dikeç (2011), on the beginning of the spatial contextualization of justice, the term "territorial justice" was initially introduced by Bleddyn Davies in his 1968 book

titled "Social Needs and Resources in Local Services," marking the first recorded effort to clearly correlate justice with geographical concepts.

According to Harvey (1975, p. 116), there are two approaches necessary to access the notion of territorial justice:

1. The income distribution ought to ensure (a) the fulfillment of the population's needs in each region, (b) the allocation of resources to optimize interterritorial multiplier effects, and (c) additional resources are assigned to address specific challenges arising from the physical and social environment.
2. Institutional, organizational, political, and economic processes should endeavor to maximize possibilities for the least advantaged territory.

If these two approaches, i.e. the distribution of income meets regional needs, optimizes the inter-territorial multiplier effects of resources and allocates additional resources to address the special challenges arising from the physical-social environment, together with institutional, organizational, political and economic processes that strive to provide the maximum possible opportunities for the most disadvantaged regions, these conditions will be fulfilled, resulting in a distribution that is equitably achieved.

Certain scholars view spatiality as an important aspect of social connections, although it is not considered as having the same degree of importance, and their major goal is to achieve social justice, and they regard spatiality as the geographical component of social processes (Madanipour et al., 2022). Harvey (1975) focused on the connection between society and space in the context of capitalism, highlighting how investment patterns in the constructed environment contribute to social inequalities and the function of spatiality in sustaining social injustice. However, these factors have been viewed as separate parts at times, sometimes even creating a schism between society and space, as well as between social justice and spatial justice. However, Gottdiener (1985) emphasizes this issue by saying that spatial characteristics are inextricably linked to social relationships, and it's impossible to examine them in isolation from one another. Also, Fainstein's vision of the "just

city," as defined in her 2011 and 2014 writings, is consistent with the idea that adopting spatial action may lead to social justice.

Justice involves more than just formal inclusion; it underscores the significance of prioritizing social interactions at the core, since these relationships vary in how individuals are positioned and impact their experiences, opportunities, and knowledge of community (Young, 2002). Social inequalities and thus the concept of social justice is directly related to space, and in fact social justice can be considered to be ingrained in space, which is an essential aspect of human society (Dufaux et al., 2009). For this reason, it is important to analyze both the dynamics of space and society while trying to comprehend social justice. At this point, we come across the concept of spatial justice. From the past to the present, several studies on spatial justice have been done, with various but related definitions and analyses of its impacts on societies.

To gain a deeper comprehension of justice within a spatial setting, it is necessary to first grasp the processes involved in forming space, the dynamics inherent to space, and our perceptions of it (Setianto & Gamal, 2021). Also, Schwab (2018) emphasizes that the foundational aspect in shaping a spatial concept of justice has been the rise of a relational comprehension of space. One central point of disputation in issues on spatial justice concerns the interpretation of space and how it interacts with society (Madanipour et al., 2022). In this context, the understanding of spatial justice should be considered together with the social and cultural dynamics of space, and this process provides an important perspective for understanding the interaction of space with society.

According to Lefebvre's (1991) perspective, space can be identified by its tangible components, which include elements such as stone, wood, and various materials. Soja (2009) sees space as a crucial component determining social inequality rather than an outcome, advocating for a perspective that emphasizes the distribution of spatial (in)justice. Space and society can be considered as parts of an inseparable whole. Space is inextricably linked to society and plays an important part in "every

aspect of communal existence" and "the exertion of authority" (Foucault, 1993). As societies can form spaces, spaces are also effective in the formation and shaping of societies. Space is not merely a receptacle for human activities; rather, it is a dynamic influence that molds human existence (Ghaderi Hajat et al., 2022).

Social interactions produce space, and this is evident in how space is utilized and perceived (Rendall, 1984). The physical properties of space may be studied and appraised by looking the firsthand encounters and observations of individuals within that space (Lefebvre, 1991). The social components of the space, like the physical properties of the space, are available to recognition in connection to the space. Because spaces formed by social processes truly reflect social traits. Space and time are essential parts of the human experience, receiving value from social interactions, rather than being separate, theoretical, and impartial (Madanipour et al., 2022). A relational perspective on space suggests that space is more than just an inert vessel; rather, social activities are inextricably related to spatial characteristics, and spatial phenomena are inherently linked to social dynamics (Lefebvre, 1991). This strong link between space and social dynamics demonstrates that geographical and social disparities are not by chance. It's important to recognize that inequality and injustice are not uniformly dispersed and have a specific spatial element that need consideration and awareness (Madanipour et al., 2022).

Soja (2010) underscores the centrality of spatiality in the generation and perpetuation of social injustices in urban and global contexts, challenging the notion that space merely serves as a backdrop for the manifestation of these injustices by putting it at the center of the underlying social processes of space production. According to Basto (2010), the spaces arise as social spaces, shaped by usage habits people and the physical availability of amenities (as cited in Schwab, 2018). In other words, space should not only be considered as a physical object where events take place, but should be considered as a living entity together with all the dynamics of society.

Having considered the relationship between space and society, it is now time to focus on the concept of spatial justice that emerges as a result of this interaction. Spatial

justice is a concept that has been studied for a long time. The concept of spatial justice, which has been used since the 1970s (Soja, 2010), is still experiencing definitional confusion today and is wrongly treated as being compared to social justice (Iveson, 2011; Philippopoulos-Mihalopoulos, 2010). As stated by Fainstein (2013) and Marcuse (2010), the notion of social justice has generally been restricted to national bounds, but spatial justice, given its intersections with the right to the city as advocated by Lefebvre (1996), has typically centered on urban dynamics. Spatial justice can aid in advancing social justice, although its influence is constrained to a certain extent (Madanipour et al., 2022). In short, spatial justice, which is a long-standing concept with ongoing definitional difficulties, is different from social justice, but it should not be thought to be completely unrelated. In addition to the concept of social justice, spatial justice brings spatial and urban dynamics to the fore. This makes the concept of spatial justice an important issue for the societies that make up space and cities.

The notion of spatial justice emerged as an expansion of the principles of social justice into the realm of space (Uwayezu & de Vries, 2018). Spatial justice is often characterized as "equity in the physical realm," implying an equitable allocation of spatial resources over a broad variety of geographic levels, encompassing living spaces, communities, urban centers, regions, nations, and continents, all the way up to the global scale (Gutwald et al., 2014). Space justice comprises the equal and democratic distribution of social interests and duties across multiple dimensions of space, taking into account various scopes or levels (Ghouchani et al., 2022). It is the primary principle governing social and political institutions, as well as resource management rules, which should be tailored to fulfill the requirements of every individual in an equitable manner (Rawls, 1971; Philippopoulos-Mihalopoulos, 2010). Marcuse's spatial justice theory emphasizes social injustices such as gaps in access to urban resources, education, and civil rights, as well as the various geographical ramifications that follow from these inequities (Marcuse, 2009).

To date, studies on the concept of spatial justice have contributed to the scientific knowledge on justice from a spatial perspective, with an emphasis on actions to

regulate the organization of space in such a way that different users have equal access to resources (Marcuse, 2010; Soja, 2010). The urban equivalent of these actions involves the distribution of essential services and resources among urban units and urban dwellers, taking into account fundamental rights, thereby forming a comprehensive set of different urban strategies (Harvey, 2008; Lefebvre, 1991). According to Dikeç (2001), there are quite few studies on spatial justice. One of them he mentions is the study of Steven Flusty's research on the Los Angeles urban landscape underlined the necessity of fair access to spatial resources as a method of attaining spatial justice. His argument in the study emphasized the need to ensure that space is distributed equitably, especially in a society where dominant groups try to impose their claims on it (Flusty, 1994).

Marcuse (2010) believes in "putting space in its place". He contends that spatial injustice is a result of social injustice and that spatial or social measures alone cannot successfully fix it. Marcuse distinguishes two types of spatial injustice: the forced restriction of any group to restricted spaces, such as segregation and the creation of ghettos, and the unjust and uneven distribution of resources across geographical areas. In this context, as Marcuse notes, spatial injustice is not only the result of physical limitations, but also the result of an unfair distribution of resources across geographical areas. Marcuse's distinction between these two types of spatial injustice emphasizes the complex relationship between social and spatial inequality. This thesis aims to understand and resolve this dual dimension of spatial injustice based on Marcuse's views.

In the literature, the topic of spatial justice is often treated under two broad areas. The discussion has become split by two opposing theories of justice: the first emphasizes questions of redistribution, while the second is more interested in decision-making processes (Dufaux et al., 2009). In this thesis study, the focus will specifically be on the issue of redistribution, meaning the distribution of urban services will be examined from the perspective of spatial justice. Many justice conversations inadvertently create an unnecessary conflict between two concepts: procedural justice and distributive justice, i.e. the means employed to achieve justice

and the actual results in terms of fairness and distribution. Several academics, including Soja (2011), Marcuse (2010), Young (1990), and Rawls (1971), have investigated this topic. In fact, the concept of spatial justice has a more integrated approach beyond distributive and procedural justice. The distinction between these two is treated as a false distinction by Madanipour et al., (2022). According to Young (1990), Hayek (1982) and Nozick (1974), ignoring the process of justice creates the possibility of overlooking various injustices in cities, while neglecting distribution may ignore the principle of equal distribution of resources and present it as something that should be. For this reason, these two can be considered as two concepts that should not be considered separately from each other in terms of ensuring spatial justice. The gap between these two aspects can be bridged by adopting a relational understanding of space, where spatial structures are not viewed in isolation from the processes that generate them, as advocated by Lefebvre (1991).

In addition to these two approaches of spatial justice, according to reviews of Uwayezu and de Vries (2018), there are mainly four forms of spatial justice argued in the literature. These are listed as;

- (i) procedural justice,
- (ii) recognitional justice,
- (iii) redistributive justice, and
- (iv) intra- and inter-generation justices.

The fairness of the policies and practices governing the management of geographical resources is emphasized by ***procedural justice***, which calls for the formulation and implementation of these policies through public participation in order to provide universal access for all users or owners to meet their basic needs (Rawls, 1971; Young, 1990; Burke & Leben, 2007). Procedural justice offers a perspective that overlaps with the central theme of this thesis by focusing on the fairness of policies and practices governing the management of geographic resources. In this framework, the development and implementation of policies and practices based on public participation supports universal access to geographic resources to meet the basic

needs of all users or owners. This approach can contribute to sustainable development of urban areas as well as strengthening social and spatial justice.

The concept of ***recognitional justice*** is based on the idea that everyone should have equitable access to and use of spatial resources, with a focus on providing chances for those who are resource deprived to do so (Fraser & Honneth, 2003). Unlike procedural justice, the emphasis here is on providing equal opportunities to individuals who are particularly resource-poor. Two dimensions – a metric and a rule – are included in this kind of spatial justice (Rawls, 1971). The capacity to use a variety of resources is included in the metric dimension (Uwayezu & de Vries, 2018). When allocating these resources or making decisions about how to use them, the rule dimension requires conformity to equality and equity standards (Gutwald et al., 2014). This two-dimensional conception of spatial justice is closely related to the issues addressed in this thesis by focusing on equity and justice in the use of resources. In this context, the topics analyzed in this thesis provide an important basis for understanding and applying these two important dimensions.

The goal of ***redistributive justice*** is to distribute geographical resources fairly among all users, including marginalized and impoverished people, so that everyone has an equal chance to use them according to their needs (Young, 1990). The slum area in Mutlu Neighborhood, which is chosen as the study area in this thesis, can be given as an example of marginalized and impoverished people. As mentioned above, the principle of redistributive justice is at the center of this thesis. In this context, the thesis focuses on the principles of redistributive justice in order to combat social and spatial inequalities and ensure a fair distribution of resources.

The goal of ***intra-generational justice*** is to provide resources and opportunities to those who belong to the same generation in an equitable manner, with a focus on meeting the needs of the most marginalized elements of society (Elkin et al., 1991). Conversely, ***inter-generational justice*** emphasizes the creation of strong institutions to promote societal prosperity and sustainable resource use for the benefit of present and future residents (Elkin et al., 1991). It also calls for a fair distribution of spatial

resources so that both current and future generations can use these resources to meet their basic needs. These four justice concepts, namely procedural justice, recognition justice, redistributive justice and intra- and inter-generational justice, are fundamentally concerned with the fair distribution of resources across space. In this context, the thesis helps to understand the basis of spatial justice by focusing on these justice concepts that emphasize the fair and sustainable use and allocation of resources (Figure 3).

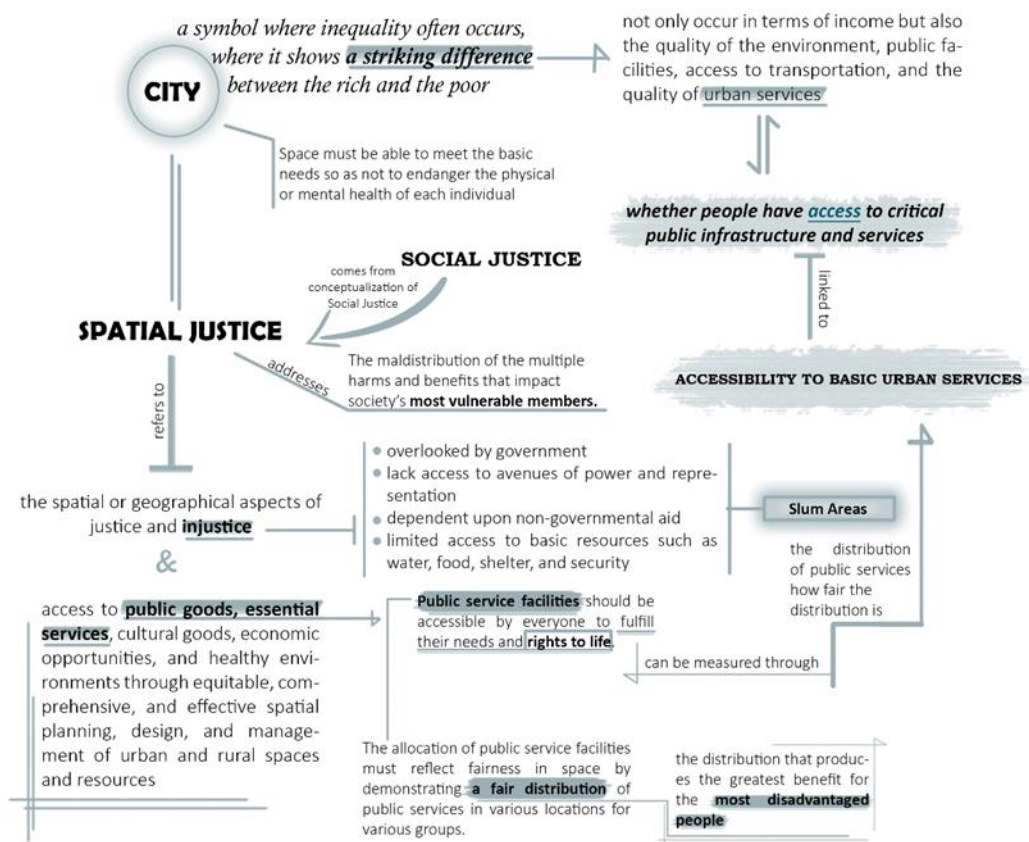


Figure 3. General Schematic Explanation of the Concepts (Prepared by the author)

2.3 Basic Urban Services

For centuries, cities have been a source of life and livelihood for people. The opportunities it harbors also require a dense population and structuring. Thus, dense

and crowded urban environments that we frequently encounter today have been formed. Cities, which were initially thought to offer better opportunities, have brought many problems over time. One of the challenges associated with rapid urbanization, overpopulation, and unbalanced expansion of the built environment is the lack of integration in the urban service delivery system, resulting in unequal access to services for residents (Dadashpoor & Rostami, 2011). This challenge affects the sustainability of cities and reduces the quality of life and wellbeing of urban dwellers. As Ghouhani et al. (2022) state one of the most important factors of urban sustainability is a balanced spatial organization in cities.

The distribution of public service facilities and the quality of life in residential areas are inextricably connected, making facility accessibility a focal point of research in domains such as urban planning, geography, and related disciplines (Wang & Zhou, 2022). With the rapid growth of cities, public land uses are unevenly distributed and this problem leads to unequal utilization of urban services by city dwellers (Ghouhani et al., 2022). However, access to urban services, even equal and fair access, should be the most natural right of an urban dweller. This right is not only a basic necessity, but also vital for improving the quality of life in an urban environment, strengthening the overall well-being of society and maximizing the potential of each individual. With regard to access to public services, the concept of a national citizenship is seen as a basis on which the population is united in a common way, which favors collective belonging and identities that justify the public provision of goods and services (Newman & Clarke, 2009).

"Public services" are associated with the basic human rights that every population should enjoy, which encompass access to clean water, electricity, education, healthcare, environmental preservation, and similar essentials (Harvey & Schaefer, 2001; Newman & Clarke, 2009). However, problems such as urban sprawl, unplanned development, overpopulation and insufficient resources deprive urban dwellers of this fundamental right. This problem is an issue that affects every decision-making individual and institution at the urban level. The issue of access to services in cities, which should be the focus of urban planners and politicians, is a

comprehensive issue that has the potential to be addressed in an interdisciplinary manner. In the discipline of urban planning, ensuring equal and equitable allocation of urban services, especially in underdeveloped areas of cities, is of paramount importance (Dadashpoor & Rostami, 2011). For this reason, the planning discipline and planners have an important role in the accessibility of urban services. The question of whether urban services are distributed fairly and to what extent this justice is achieved is an important issue for city planners and should be, but comprehensive spatial justice has not been sufficiently operationalized (Kinman, 1999).

From another perspective, cities harbor social identities. Any inequality in cities, including inequality in the distribution of services, can lead to not only spatial but also social segregation. Since urban services shape the physical, social and spatial structure of the city, failure to distribute these services equitably has a lasting effect on class segregation in urban neighborhoods and seriously challenges urban planning (Dadashpoor & Rostami, 2011). When these segregations exist, it will not be possible to talk about any access. Because, in its simplest form, accessibility can be defined as the number of services per geographical unit, without taking into account factors such as spatial externalities, socio-economic inequalities, and the structure of the transport network (Tsou et al., 2005).

The literature offers various explanations for urban services. The term "public services" pertains to the essential human rights that every citizen ought to possess, including access to clean water, electricity, education, healthcare, environmental protection, and other comparable rights (Newman & Clarke, 2009; Harvey & Schaefer, 2001). Moreover, public service facilities are among the necessary amenities to which every individual is entitled in order to fulfill their requirements and exercise their rights to a quality life (Smith, 2000). In Setianto and Gamal's (2021) article, the term of public service is defined as daily public services that should be ensured by the government to the habitants of urban area, and exemplified as educational services, security services, public transportation, clean water supply, waste management, and recreational services. In a way similar to this, public services

are typically defined as economic endeavors initiated by government bodies with the goal of serving the general public's welfare (Hussaini et al., 2022). As a result, it can be said that governments and especially local authorities play an important role in the provision of public services. In the other hand, public institutions are responsible for the establishment and initiation of public services, but the private sector also plays a role in sustaining and funding these services (Cho, 2003).

According to Llewelyn-Davies (2004), the urban objects meant to fulfill supporting roles in enhancing the health and well-being of urban citizens include public social services and facilities. In support of this, Setianto and Gamal (2021) also say that enhancing the efficacy of public services, particularly those essential ones meant for the local population, stands as a major strategy of creating a wholesome urban environment and attaining satisfactory living standards for everybody. As mentioned earlier, since urban services significantly affect the quality of life, they should be satisfactory and adequate for each individual in a society. The two approaches presented by Tsou et al. (2005) regarding the functions of urban public services also support this situation. According to them, urban public services have different characteristics that urban planners, in particular, should take into account, defining these characteristics as (i) range/impact area, which refers to the preference of city residents for different types of facilities, and (ii) spatial separation, which denotes the varying sizes of the same type of public facilities that have different effects on city residents.

Urban or public services also require appropriate management in urban areas. Spatial planning comprises the technical and political procedures involved in guiding and controlling land use, delivery of infrastructure and services, and developing suitable communities (Serag El Din et al., 2013). Urban management has a considerable impact on the recognition and classification of urban service activities because they include specifying the actual scope of these activities and creating links with particular districts (Hosseini et al., 2021). The bulk of public service facilities are situated in the city center, making access challenging, particularly for citizens living on the outskirts of the city (Setianto & Gamal, 2021). For this reason, the importance

of urban services and their spatial distribution reappears in the field of urban planning.

In their study, Tsou et al. (2005) define public facilities as municipal parks, community parks, neighborhood parks, libraries, green belts, junior high schools, elementary schools, retirement centers, community centers, traditional markets, cemeteries and dump site. The paper examines three characteristics of urban public facilities that impact residents in different ways. These include the spatial arrangement and the service/impact range of public facilities, the residents' preferences for various types of public facilities, and the diverse effects on residents based on the different sizes of public facilities of the same type. Moreover, Uwayezu and de Vries (2018) describe basic facilities and services as water, electricity, education (including nursery, primary, and secondary levels), health centers, sanitation, and transportation. These are regarded as crucial facilities that should be improved to foster socio-economic development for everyone. In the assessment process, they evaluated each of these components individually, taking into account their distinct characteristics and contributions.

Also, in the study of Hodgart (1978), the public facilities were classified as central facilities, noxious facilities and hybrid facilities. Central facilities are defined as facilities that are centrally located, require users to commute for services and are widely used by the majority of the population. Noxious facilities are defined as structures, such as waste incineration plants, which, while necessary for the overall area, impose adverse effects such as increased noise or pollution on nearby residents. Hybrid facilities are characterized as installations or establishments that present a combination of both positive and negative aspects for local communities (Hodgart, 1978). The definitions of central, noxious and hybrid facilities provide a guide to understanding public facilities' various impacts on the quality of life of local people. This categorization can help planners, policy makers and local communities to make more informed decisions about the siting and management of facilities, so that more appropriate and sustainable solutions can be found that better suit the needs of communities.

Ottensmann (1994) defines urban services under three different headings: (i) services that are not dependent on fixed infrastructure, (ii) services that are supported by network infrastructure, and (iii) services provided at fixed locations that necessitate transit to and from such facilities. According to him, services that do not have a strong link to fixed infrastructure are often characterized as services where service providers have a presence in neighborhoods, for example, street cleaning. In this type of service, the assessment of service distribution requires taking into account the service levels in each neighborhood. In the second type of urban services, he argues that service provision is provided through fixed networks and that service provision can be judged primarily by the presence or absence of a network and the quality of the service that does exist. He gives as examples streets (paving of streets, pavements, etc.) and sewerage. Third, he states that the type of service involving travel to or from fixed facilities may involve users travelling to a facility located at a fixed point, such as parks or libraries, or service providers travelling to users, such as fire protection. According to him, these situations complicate the assessment of the level of service provided and the remoteness of the facility, as both the level of service provided and the remoteness of the facility to users are important factors that need to be considered separately. The services to be analyzed in this thesis are defined according to his classification and the following figures summarize both Ottensmann's classification and the service definition to be used in this thesis study (Figure 4, 5).

Description of urban services by Ottensmann (1994)		
Definition for urban services	Examples for urban services	The assessment of service distribution
Services that are not dependent on fixed infrastructure	→ Police patrol → Street cleaning	The service levels in each neighborhood
Services that are supported by network infrastructure	→ Streets (paving of streets, pavements, etc.) → Sewerage	The presence or absence of a network and the quality of the service that does exist
Services provided at fixed locations	→ Parks → Libraries → Fire Protection	Facility service level and facility distance

Figure 4. Description of urban services (Prepared by the author using the definition of Ottensmann, 1994)

Description of basic urban services used in the thesis	
Definition for urban services	Services used to measure spatial justice
Network Infrastructure	→ Street network (pavements) → Public Transport Network → Water and Sewerage Network → Electricity Network
Fixed Facility Services	→ Neighborhood Parks → Education Facilities → Health Facilities → Municipal Service Buildings

Figure 5. Description of basic urban services used in the thesis (Prepared by the author)

After defining and understanding what urban or public services are, and how they are addressed in this thesis study, there are some concepts that need to be mentioned. Talen (2003) interprets neighborhood units as service providers and summarizes the three foundational concepts utilized in her methodological contribution to the analysis of neighborhoods as spaces where urban services are provided as follows: service provision, access and needs of the population. The emphasis here on service provision, access and the needs of the population may indicate that neighborhoods should be understood as social and service-oriented organizations rather than just geographical areas. In this thesis, a neighborhood scale study will also be carried out. Two main topics (service provision and access) that stand out in Talen's study and are considered to make important contributions to neighborhood analysis are

discussed in detail in the following sections. Service provision and access are fundamental issues such as how urban or public services operate at the neighborhood level and how residents have access to these services. Emphasizing these topics is expected to increase the clarity of the main points that the thesis will focus on. The title of the needs of the population in Talen's study, on the other hand, does not seem sufficient to solve and understand the problem that the thesis focuses on. Because the main purpose of the thesis focuses on the provision and accessibility of basic urban services. Since these services are seen as services that should already be provided in a city and neighborhood, they are shaped according to basic needs. Therefore, the thesis analyses the basic needs of urban life in a specific region rather than focusing on the general needs of the population.

2.3.1 Service Provision

Service provision is a phenomenon that facilitates or, on the contrary, complicates life in cities. Services and urban amenities embrace all facets of a city and enhance the quality of life for its residents (Hosseini et al., 2021). Inadequate service provision in a living space may negatively affect the quality of life. As Pacione (1989) says that at the local level within a city, people's physical access to urban services and amenities is a critical component in shaping their quality of life. In this context, effective service provision enables urban residents to organize their daily lives, participate in their communities and improve their overall quality of life. However, inadequate or unbalanced service provision can lead to negative economic, social and environmental consequences. When public services are not dispersed in line with the requirements of communities, the initial lack of provision sets in motion a chain of events that further disadvantages such neighborhoods (Hastings, 2009).

The concept of "service provision" is based on facility accessibility, which means that service provision is defined by how near inhabitants are to the key amenities they require in their everyday life (Talen, 2003). Based on this definition, it can be interpreted that if an urban dweller has good access to services, the service provision

in that area is also good. The quantities of services provided as well as the accessibility of neighborhood residents to them is significant for service provision for an urban area. Ensuring equity in the delivery of public services requires not only addressing the quality of service at each facility but also giving equal consideration to the distances between these facilities and their users (Ottensmann, 1994).

In the sphere of urban studies over the last three decades, there have been repeated periods of attention and examination focused on the features and standards of public service provision in economically disadvantaged communities or poor neighborhoods (Hastings, 2009). Lineberry (1977) argues that although inequality in service provision is to some extent a common problem in every city, the lower classes, economically disadvantaged and vulnerable groups and regions in society are clearly discriminated against in terms of service provision (as cited in Pacione, 1989). Relatively vulnerable groups in every society and city are also highly affected by inequalities in service provision. According to Hastings (2007), poor neighborhoods do not receive service provision commensurate with their level of need for services, suggesting that these neighborhoods are underserved.

The characteristics of necessary physical infrastructure determine the supply of certain urban services, and when evaluating service delivery, it is critical to evaluate the role of urban infrastructure in the whole process (Ottensmann, 1994). In this context, the characteristics of the physical infrastructure emerge as a determining factor for the effective delivery of specific services in a city or region. Physical infrastructure includes water supply, energy distribution, transport, etc. and has a direct impact on the quality of life in cities. Referring to Ottensmann, it can be emphasized that urban infrastructure not only influences the provision of certain services, but is also a determining factor in overall urban development processes.

In his study on assessing equity in the provision of public services, Ottensmann (1994) developed a methodology for integrating the consideration of distance to facilities with the level of service provided at those facilities. Within this methodology, he considered equity in the provision of individual elements

contributing to service quality, service levels and distance. Ottensmann's methodology appears to be designed to ensure that each individual has equal access to a given service. This aims at a fair distribution of services, taking into account not only the physical distance to services, but also the content and quality of those services. This approach can increase the potential to meet the needs of different segments of society by ensuring that services are delivered effectively and equitably. At the same time, equity in service delivery can contribute to the formulation of public policies in a more equitable and inclusive manner.

In their study, Hosseini et al. (2021) aimed to analyze and identify the spatial inequality in the distribution of facilities in the city of Tehran, Iran due to the fact that the city of Tehran has to struggle with various injustices such as political capital, large population centers and industrial centers. They are defined different indicators to analyze spatial inequality in Tehran city. These are fire stations, Red Crescent, ambulance service, hospital, police stations, gas station, food and wholesale centers, medical services, sport clubs, housing price, subway lines, local governments, bus terminal and hotel. Through the analysis of these indicators it is expected to understand potential inequalities in the distribution of facilities in the city. The researchers have chosen to focus on types of services in order to gain a deeper understanding of the provision and accessibility of a particular service, which can be considered as a possible approach to analyze service inequality.

In the article of Uwayezu and de Vries (2018), they developed sixty (60) indicators for measuring spatial justice in slum areas in terms of service provision. The percentage of households with access to water and electricity on their premises, proximity to educational institutions, healthcare, sanitation, and transportation services, as well as the distance to public transportation and the power grid for households without direct connections to these facilities, are all considered in their assessment (Uwayezu & de Vries, 2018). These indicators provide a comprehensive measurement tool for understanding service inequality and access problems in slum areas. The research suggests that the data obtained by using these indicators can contribute to the identification of effective strategies for improving spatial justice.

The indicators that are in line with the scope of the thesis from the 60 indicators are listed in the Table 1 below.

Table 1. Indicators used in the study of Uwayezu & de Vries (2018)

#	Indicator
1	Presence of legal or policy provisions for the provision of basic facilities and services ¹ in all urban neighborhoods
2	Presence of specific legal or policy provisions for the provision of basic facilities and services in poor and low-income urban neighborhoods
3	Presence of spatial development plans designed for the informal upgrade of settlements
4	Presence of spatial development plans to relocate squatters or slum dwellers to serviced sites
5	Presence of legal provisions for the resolution of conflicts resulting from urban development
6	Presence of spatial plans for the relocation of slum dwellers into serviced sites
7	Presence of spatial plans for the provision of basic facilities and services in all urban neighborhoods
8	Presence of specific spatial plans for the provision of basic facilities and services in poor and low-income urban neighborhoods
9	Presence of budget lines for the provision of basic facilities and services in all urban neighborhoods
10	Presence of specific budget lines for the provision of basic facilities and services in poor and low-income urban neighborhoods
11	Percentage of informal settlements planned for upgrading
12	Percentage of households who participate in the planning for the informal upgrade of settlements
13	Percentage of slum dwellers who perceive a likelihood of relocation to serviced sites
14	Percentage of households who have access to basic facilities and services
15	Percentage of households in poor and low-income neighborhoods who have access to basic facilities and services

¹ The definition of basic facilities and services by Uwayezu and de Vries (2018) mentioned here is explained in section 2.3 Basic Urban Services.

In a similar way, Lineberry and Welch (1974), in their paper on measuring the distribution of urban public services, they emphasize the difficulty of directly measuring public service outputs in the context of service provision research and stress the need to resort to alternative measures that are believed to be partially correlated with service output or service delivery quality. Within this scope, they referred to three standards for assessing the allocation of urban public services: input equity, output equity and efficiency. This suggests a comprehensive approach to assessing both the elements invested and the outcomes achieved - the investment of resources and the results achieved. In line with the ongoing debate on the complexity of urban service distribution research, this approach emphasizes the importance of considering various dimensions in order to achieve greater coherence.

The challenges and standards of assessment outlined by Lineberry and Welch (1974) emphasize the importance of the various indicators presented in the remainder of the paper. These indicators focus on the complexity of the methods used to understand and assess the distribution of urban public services and provide opportunities for assessments of various dimensions. The indicators presented in the study are categorized into six groups as A, B, C, D, E and F. Among these groups, type D indicators are considered the most appropriate for distribution research as they are directly related to service organization activities, represent important consumer concerns and are linked to service output, while type E and type F indicators are considered less accurate as they are sensitive to various external factors beyond government activities (Lineberry & Welch, 1974). Table 2 below contains detailed information on these indicators.

Table 2. List of indicators for measuring the distribution of urban public services defined by Lineberry and Welch (1974)

Indicator Category	Indicators
A: Indicators of Input Quantity	○ Police patrolmen / population ○ Pumper companies / population ○ Pumper companies / square miles ○ Ladder companies / multistory buildings

Indicator Category	Indicators
(Relative to Potential Demand)	○ Fire hydrants / miles of streets ○ Library books / population ○ Library staff / population ○ Park and recreational acreage / population ○ Park and recreational facilities / population ○ Park and recreational supervisory personnel / population ○ Maintenance personnel / park and recreational acreage ○ Housing units with access to public water supply / total housing units ○ Housing units with access to public sewage system / total housing units ○ Miles of storm sewer / miles of streets ○ Storm sewer inlets / miles of streets ○ Miles of drainage channels cleared / miles of drainage channels ○ Miles of paved streets / total miles of streets ○ Miles of streets resurfaced / miles of paved streets ○ Miles of curbing / miles of paved streets ○ Curb miles swept / miles of curbing ○ Miles of grading / miles of unpaved streets ○ Miles of sidewalks / miles of streets ○ Street lights / miles of streets ○ Lighted intersections / total intersections ○ Miles of bus routes / miles of streets (or square miles) ○ Maintenance personnel / public cemetery acreage
B: Indicators of Input Quantity (Relative to Expressed Demand)	○ Police patrolmen / reported crimes ○ Police patrolmen / calls for police assistance ○ Pumper companies / building fires ○ Pumper companies / fire alarms ○ Ladder companies / multistory building fires ○ Teachers / students ○ Specialized staff / students ○ Classrooms / students ○ Library books / library books borrowed ○ Library staff / library users ○ Park and recreational acreage / park and recreational area users ○ Park and recreational facilities / park and recreational facility users ○ Supervisory personnel / park and recreational facility users ○ Bus seats / bus passengers (during peak hours)
C: Indicators of Input Quality	○ Caliber of police patrolmen (training, experience) ○ Caliber of school teachers (training, experience, verbal proficiency) ○ Non-temporary classrooms / total classrooms ○ Quality of public buildings (soundness, attractiveness, air conditioning) ○ Quality of recreational facilities (swimming pools, tennis courts, etc.)

Indicator Category	Indicators
	○ High intensity street lights / total street lights ○ Quality of buses
D: Indicators of Service Delivery Quality (from the Consumer's Perspective)	○ Conduct of "street-level" personnel (Effectiveness, carefulness, evenhandedness, etc.) ○ Demeanor of "street level" personnel (Friendliness, courteousness, respectfulness, etc.) ○ Frequency of service ● Frequency of preventive police patrols ● Frequency of library bookmobile service ● Frequency of trash and garbage collection ● Frequency of bus service ("headway") ○ Promptness of service ● Average police response time (to various types of calls for assistance) ● Average response time of first-arriving fire company ● Promptness of snow removal ○ Reliability of service ● Average water pressure ● Missed trash and garbage collections / total collections ○ Range of service ● Scope of educational curriculum and auxiliary programs ● Range of library services ● Range of supervised recreational programs ● Range of recreational facilities (playing fields, swimming pools, etc.) ○ Proximity of service facilities ● Schools, libraries, parks, and recreational facilities ○ Crowdedness of service facilities ● Schools, libraries, parks, and recreational facilities ○ Direct service costs ● "One-way" v. "cross" bussing ● Facility user fees and admission fees ● Curb v. rear-of-house trash and garbage collection ● Acres of land fills and garbage dumps / square miles ● Miles of expressways / square miles ● Bus fares
E: Indicators of Community (Neighborhood) Service Facility Condition	○ Condition of public buildings (cleanness, state of repair) ○ Condition of park and recreational areas (cleanness, attractiveness) ○ Condition of park and recreational facilities (cleanness, state of repair) ○ Frequency of street flooding ○ Smoothness of streets ○ Cleanness of streets ○ Nighttime light level at street intersections

Indicator Category	Indicators
	○ Condition of buses (cleanness, state of repair) ○ Condition of public cemeteries (cleanness, attractiveness)
F: Indicators of Community (Neighborhood) Condition	○ Victimization rates ○ Reported crime rates ○ Crime-loss rates (in lives or in dollars) ○ Building fires / total buildings ○ Fire-loss rates (in lives or in dollars) ○ Average achievement test scores

These indicators are an important tool to assess the overall quality of life in a city or region and to understand whether public services are fairly distributed. They can be used to assess the effectiveness of city management and the impact of services on the community, including performance measures in a variety of service areas such as police, fire, library, parks, infrastructure, schools and public transport. By monitoring the performance of specific services, these comprehensive measures can provide valuable information for decision-makers to identify potential problem areas and develop strategies to improve the efficiency of services. However, the meaning and interpretation of these indicators should be carefully considered, taking into account the specific context and local conditions. Since each indicator can reflect the specificities of the service area, a proper evaluation and analysis of each of them will reveal the problems related to service delivery in the area more clearly. In this context, the indicators that will be used to measure service delivery and accessibility in this thesis are compiled from the literature under this chapter and presented in a field-specific manner in the methodology chapter.

2.3.2 Access/Accessibility

The concept of accessibility is widely present in the literature and is frequently discussed. However, according to Harvey (2000), the diminishing emphasis on accessibility in the bulk of scholarly critiques of new urbanism shows that either

access is regarded irrelevant or that prevailing commercial pressures are viewed as insurmountable. Accessibility can be addressed in every aspect of life, whether it is physical access or access to information and opportunities. Ashik et al. (2020) explains accessibility in two ways: spatial accessibility and non-spatial accessibility. Concerning spatial accessibility, there are two primary approaches: First, only addresses inequalities in the level of accessibility and this approach aims to minimize inequalities between different spaces through the spatial distribution of services and facilities; and the second, considers the accessibility opportunities provided to different social groups and argues that more disadvantaged socio-economic groups tend to have limited access to public facilities (Feitosa et al., 2021).

Accessibility can be described as the convenience of reaching pertinent activities, people, or opportunities (Vale et al., 2016). Accessibility is redefined from being solely about individual mobility to becoming a communal concern, where it is described as the convenience with which a resident can reach a specific destination (Talen, 2003). The transformation of the concept of accessibility into a societal concern has become a significant factor in urban planning and the provision of public services. This emphasizes the importance of cities and neighborhoods being barrier-free for their inhabitants to live their lives, access work, education and other basic needs. In this context, a broad perspective of the concept of accessibility can shape efforts to make public services more equitable, inclusive and sustainable.

When the concept of accessibility is considered at the urban level, the significance of the infrastructure and services provided by cities becomes apparent. In this context, urban planners play a crucial role in ensuring and prioritizing accessibility. One of the primary goals of urban planners is to promote spatial justice in the allocation of urban services, guaranteeing a fair distribution of both the social burdens and the utilization of local resources (Hosseini et al., 2021). Urban accessibility plays a critical role in achieving a sustainable, equitable, and livable urban environment.

Accessibility should be considered in different ways and at different scales, and it should not be examined in the same manner at the urban level as it is at the neighborhood level. Emphasizing the significance of accessibility in appraising neighborhoods strongly aligned with the perspective that urban planners should support community designs that prioritize better links between people, their workplaces, and essential services (Talen, 2003). Experts working in the field of urban geography and urban planning, in particular, have focused on solving spatial problems such as physical accessibility and the optimal location of urban services in most of their studies to date (Pacione, 1989).

Ensuring accessibility is actually quite important for societies. Accessibility aims to create a more equitable living environment by removing barriers between individuals and communities. It can also be observed that improving the quality of life is achieved by meeting the diverse needs of different segments of society. Utilized to ascertain the attainment of equity through various definitions, accessibility, along with equity, constitutes the fundamental elements employed to evaluate the spatial distribution or pattern of public services (Talen & Anselin, 1998). The issue of access to services, which is particularly difficult for vulnerable groups of the society, is important for creating just cities. According to Pinch (1985), limited access to public and private facilities further reduces the already low quality of life of vulnerable and disadvantaged groups living in cities (as cited in Pacione, 1989). This situation, which emphasizes inequalities for disadvantaged segments of society, shows that limited access to public services can deepen social and spatial inequalities by negatively affecting the quality of life of these groups.

Access is evaluated from the standpoint of pedestrians (including bicyclists), rather than automobiles, and this method defines the idea of "neighborhood-level" amenities, which are defined as facilities within walking distance for residents of a neighborhood (Talen, 2003). As highlighted by Wekerle (1985), accessibility to urban services may be more important for community members who rely largely on non-automobile modes of transport, such as the elderly and those with limited financial resources, because the distance cannot be easily adjusted and is not elastic.

Physical proximity and easy access to urban services provide citizens with choices and opportunities, increasing their well-being, thus freeing up income for consumption expenditures that are left over from travel costs (Pacione, 1989). With regard to the financial constraints and physically capableness, there should be easy availability of public services wherever they are located (Kaphle, 2006).

As Talen (1998) points out, analyzing accessibility is also of great importance for spatial justice issues. Lynch (1981) contended that assessing “settlement performance,” or what constitutes a "good" city, could require considering two factors: the nature of the feature being accessed and the individual getting that access. In simpler terms, attaining social and spatial justice in the equitable distribution of services and amenities necessitates taking into account the wellbeing of all segments and social classes within society (Hosseini et al., 2021). Accessibility includes not only physical access but also ease of access to opportunities, which is a cornerstone of social and spatial justice.

In this section, studies on measuring accessibility, spatial justice and equity will be described from the existing literature. Measuring accessibility and justice is a complicated issue for researchers since it has different dimensions to be considered. In the literature, there are several studies to discuss about measuring access and justice. Some of them are focused on measuring justice through allocation of services in a certain location. As mentioned in previous chapters, equal distribution and accessibility of services is important for evaluating justice and injustice in a space and society. Therefore, it is significant to understand different methodologies which can be used for assessment of spatial justice and accessibility.

In order to measure equity, it is first necessary to compare benefits, i.e. the number of facilities or services provided, and needs, i.e. demands (Bennett, 1980, as cited in Truelove, 1993). The geographic literature identifies four roughly similar strategies for measuring spatial equality, and these are mapping areas beyond range of service, service-to-needs ratio, correlation analysis, indices (Truelove, 1993). They are explained by Truelove respectively as follows: Mapping areas beyond the defined

range of existing facilities are mapped in a clear and visually attractive manner, with any location surpassing the agreed-upon benchmark distance being disadvantaged, suggesting unequal facility distribution; each district's equity is assessed by computing a service-to-needs ratio which serves as a basic measure while overlooking internal variations within the district, representing a rudimentary effort to establish a standard for territorial social justice; correlation analysis investigates the relationship between service distribution and need, with a higher correlation suggesting a more equitable distribution of services.

One approach for evaluating and measuring spatial justice involves calculating the equitable distribution of significant resources and opportunities for utilization within a given area (Setianto & Gamal, 2021). According to some authors such as McLafferty (1982), Talen and Anselin (1998), and Lindsey et al. (2001), the accessibility and fairness of the distribution of urban public services across socio-economic and demographic groups have been established as methods to evaluate the equity of distribution. In this study, access to basic urban services in unplanned slum areas will be analyzed through a sample neighborhood. Thus, outputs will be obtained on whether or to what extent the area provides spatial justice.

According to available literature, four aspects can explain accessibility and its unevenness in an urban environment (Guida et al., 2022): First, the land-use component encompasses both demand characteristics, including the origins of people, and features of the supply system (activities, jobs, services, etc.) (Bertolini et al., 2005). Second, the transportation component encompasses both the supply aspect (comprising network infrastructures and overall costs) and the demand aspect (involving passengers or freight) (Banister, 2019). Third, the individual component that takes into account the requirements, capabilities, and opportunities of individuals, including elements such as annual income, age, household car ownership, and so on (Haustein, 2011). And the last, the temporal component, which aids in synchronizing transportation and activity schedules with persons' permitted time for engaging in specified activities (Xu et al., 2015).

There exist some measures for accessibility. For example, in 1978, Hodgart, in his article named “Optimizing Access to Public Services”, defined five different categories for measuring accessibility. These are: (i) minimizing travel cost, (ii) maximizing demand, (iii) maximizing equity, (iv) covering objectives and (v) spatial interaction models. In the same vein, Lindsey et al. (2001) explained that there are different approaches to measure accessibility which are (i) container approach; (ii) gravity models; (iii) travel cost minimization models; (iv) covering objectives; and (v) minimum distance models. The literature generally agrees that accessibility to a service or location should be examined in order to measure justice and equity. Lindsey et al. (2001) describe the container approach as the favoring of accessibility to a facility within a specific area, and they defend the opinion of its extensive use by political scientists and researchers in public administration and planning, and it is the simplest method to be used.

2.4 Slum Development and Basic Urban Services

Especially in cities of developing countries such as Türkiye, socio-economic inequalities are quite high, and the reflection of this in space is seen both at the neighborhood level and at the province or district level. While the majority of planning studies focus on land use and per capita land plans, they often fail to adequately consider factors such as efficient access to urban services, the types and distribution of these services, and particularly, the socio-economic characteristics of neighborhoods (Dadashpoor & Rostami, 2011). For this reason, it is important to consider a multidimensional approach in planning decisions. The importance of this approach is especially evident in slum areas. With urbanization and the innovations, it brings, a rapidly increasing population and cities that cannot meet the needs of this population have started to appear.

For urban planning discipline and urban planners, it is significant to the difference between the planned distribution of urban services and the actual distribution resulting from planning (Talen, 1996). With this evaluation, it can be understood

how feasible and useful the planning policies and decisions are in space. Because the reflection of a plan decision on the space is not always as expected, and with time and changing socio-economic conditions, even ideal planning decisions do not find their fulfilment in space. However, plans are not always capable of meeting the needs and preferences of the society. The situation is much worse in unplanned areas, which are the subject of this thesis. There is no service distribution decision for unplanned slum areas, and they are generally unfavorable conditioned areas.

Unauthorized, unplanned, uncontrolled, marginal, or spontaneous settlement is what is referred to as an informal settlement; it is the outcome of spontaneous urbanization (Mohanty, 2019). Informal settlements in cities are defined in various ways. According to United Nations (2003), slum areas and squatter settlements are defined differently. The term 'slum' encompasses its conventional definition, signifying residential areas that were previously esteemed or sought after but have now degraded due to the migration of original inhabitants to newer and more affluent parts of the cities (UN-Habitat, 2003). From another perspective, Tipple and Speak (2006) developed distinguishing criteria between the homeless and the informally housed, demonstrating that slums fall under the definition of homelessness according to their requirements, whereas squatter settlements fall under the category of informal housing with minimal infrastructure provision. Slums are characterized by a lack of access to health and educational services, insecure employment, insecure tenure, traffic, crime, and violence (Garland et al., 2005). In a similar way, an ordinary slum frequently lacks the necessary roadways, power, safe water supplies, sanitary facilities, and other essentials for human habitation (Mohanty, 2019).

On the other hand, squatter settlements are explained as settlements formed when individuals unlawfully seize land and construct their dwellings upon it, typically using self-reliant methods (UN-Habitat, 2003). A squatter settlement is a residential area that forms without legal land claims or authorization from authorities, often resulting in insufficient infrastructure and services due to its illegal or semi-legal status (Pagadala, 2015). Also, Srinivas (2015) outlined three key features of squatter settlements: physical, social, and legal; physically, these settlements often lack

adequate services and infrastructure due to their informal status, and socially, they are primarily inhabited by lower-income households engaged in wage labor or informal sector work. Consequently, a squatter settlement would refer to the settlement's legal status, but a slum settlement would refer to the community's physical situation. Both terms refer to informal settlements lacking formal planning processes, and can be used interchangeably in the literature. In this thesis study, the term “slum” is going to be used.

Water and sewerage infrastructure, schools, minimum economic livelihoods are very important for people who start to settle in cities, but the primary need is housing and shelter (Drakakis-Smith, 1976). In unplanned and rapidly growing cities where the needs cannot be met sufficiently, the emergence of slum areas has been inevitable. The term 'slum' has traditionally been employed to characterize individuals residing in deplorable conditions and in filthy surroundings (Mahabir et al., 2016). There are different wordings for slum in some countries: favela in Brazil, barrio in Latin American countries, callampa in Chile, kampong in Southeast Asia, villa miseria in Argentina and gecekondu in Türkiye, and these examples continue to diversify in different countries (Erman, 2013; Mayne, 2017). The word “gecekondu” entered the Turkish spoken language after the 1940s and has been explained with various definitions: according to one definition, it is a dwelling that is usually built rapidly, uncontrolled, unhealthy and in violation of zoning laws; in official sources, gecekondu is defined as a building that is built on land without an owner, without permission and in violation of zoning laws (Keleş, 1972). Slum areas will be referred to as “gecekondu” hereafter in this thesis where it is mentioned in the context of Türkiye.

Slums are not involved in the planning process of cities since they are informal settlements; however, this does not mean that they can be ignored in processes of urban management. The slum is the home of the urban poor, and even if it is illegal, it carries a certain legitimacy because it emerged as a result of the inability of poor countries to provide housing for poor segments of the population (Erman, 2013). However, the representation of local needs in impoverished urban neighborhoods,

particularly in slum areas, is difficult, as these regions sometimes have little or no legal rights on city or national governments (Ooi & Phua, 2007). With rapid urbanization processes, cities with insufficient capacity in planned areas have continued to develop in an irregular and unplanned manner with increasing population and needs. There is a positive connection between socio-spatial inequality and urbanization, along with urban expansion, observed in phenomena like shrinkage, sprawl, and the decline of inner-city areas (Hosseini et al., 2021). This irregular urban development has brought along informal slum areas.

Slums are described with different concepts depending on the point of view; while some emphasize illegality, others underline the fact that they were built with the user's own means (Erman, 2013). There are different attitudes towards slum areas in society; some people look down on the poor living conditions in these informal settlements, while others admire the ability of slum dwellers to meet their housing needs with limited resources (Hoy & Jimenez, 1991). According to Turner (2012), since people are more adept at meeting their own needs and can accomplish great things with little money, informality has the ability to alleviate housing shortages and the lack of urban infrastructure (as cited in Schwab, 2018). Similarly, it is argued that informal communities, developed through self-build methods, frequently attain greater degrees of social and economic development compared to settlements solely provided by public or private entities (Pugh, 2000).

Areas facing disadvantages, commonly found in ancient city centers, surrounding inner suburbs, and the fringes of urban areas, are frequently referred to as tenement districts or shanty towns, and these areas are sometimes referred to as informal, squatter, or spontaneous communities (Mayne, 2017). In general, informal areas in cities are accepted as a result of urbanization. However, some authors argue that the source of squatting and informal settlements is a lack of administrative planning (Ooi & Phua, 2007). Informal settlements are defined as the illegal and unplanned occupancy of land (Van Wyk, 2012, as cited in Pinfold, 2015). Informality is also described as a situation of deregulation grounded in negotiable social ideals that may be observed in the experiences of both the rich and the urban impoverished (Roy,

2009). In the literature, the terms “slum” and “informal settlements” are frequently used interchangeably (UN-Habitat, 2012).

Informal settlements or slum areas have a different physical and socio-economic structure from planned urban areas. While this difference causes spatial and social segregation in cities, it leads to the marginalization of slum dwellers who are seen as one of the disadvantaged groups. This spatial segregation has an effect that can significantly reduce the quality of life of slum dwellers. Marginalization is also defined as ghettoization according to Dlabac et al. (2019), and it is highlighted as a key contributor to social injustice, defined by the concentration of disadvantaged persons in certain locations, which can result in social marginalization, strained educational institutions, and an all-encompassing lack of opportunities.

Both spatially and socially excluded slum areas are inadequate in terms of urban service provision and access to those services. Slum areas, which are in a worse situation than the rest of the city in terms of ensuring spatial justice, have started to turn into idle urban areas with inadequate service provision, even though they initially emerged due to migration from rural to urban areas as cities were seen as a social and economic opportunity. Migration from rural to urban areas has not only spurred the expansion of cities but has also been recognized as a major contributor to the spread of slums (Mahabir et al., 2016). While overpopulation and urbanization in urban areas are shaped by economic development, poverty is also urbanizing, resulting in inadequate housing conditions, poor infrastructure support and inadequate services (Ooi & Phua, 2007).

The idea of pursuing social and economic opportunities, which is among the reasons for rural-urban migration, initially attracted individuals who saw cities as a social and economic opportunity. In this context, the urbanization process caused by rural-urban migration has deepened spatial injustices, especially in slum areas. Although migrants initially sought a better life in the cities, they were confronted with factors such as inadequate local services and increased social exclusion, which led to the transformation of slum areas into both spatially and socially excluded areas. This is

an important issue to be considered in terms of urban planning and resource management.

Even while public investments are meant to be fairly distributed, they tend to focus on more central regions, drawing attention to spatial disparities and the social consequences they cause (Feitosa et al., 2021). This is particularly noteworthy in slum areas, as the fact that public investments are often shifted away from these areas can reduce the chances of equal utilization for the population in these areas. This trend can limit equal access to resources among individuals living in spatially disadvantaged areas and lead to inequalities in access to social services, infrastructure and other important public resources.

Looking at the situation in Türkiye, in order to understand the development of slums in Türkiye, it will be important and sufficient to look at the urbanization story of Türkiye. The gecekondu phenomenon has gained momentum especially in the second half of the 20th century and has been shaped by urban growth and socioeconomic dynamics. The emergence of gecekondus in various regions of Türkiye is closely related to urbanization policies, economic changes and demographic factors. In this context, Türkiye's urbanization process has had a significant impact on the emergence and evolution of gecekondu areas.

Keleş (1972) discussed the reasons of urbanization movements under three groups: Pushing forces, transmitting forces and pulling forces. Low productivity, insufficient income, unbalanced distribution of land ownership, fragmented agricultural lands, mechanization and unemployment, climatic conditions and erosion stand out among the pushing forces defined as the factors that push peasants away from their lands and agriculture. According to Keleş, the transmitting power of urbanization movements symbolizes the development of transport facilities; this movement results from the concentration of the exchange of goods and services between settlements centralized in certain transport and communication networks and settlements of various sizes connected to these centers. And, the pulling forces are factors that draw the population to the city and can be associated with job

opportunities, especially in non-agricultural sectors; in this context, industrialization is the most prominent attractive force.

The emergence of gecekondu settlements in major cities was the result of a process marked by rapid depeasantization and a gradual shift toward urban labor, in which extensive rural displacement caused by agricultural mechanization for increased productivity was not matched by a corresponding level of industrialization in urban areas (Kıray, 1970, as cited in Erman, 2011). The rapid urbanization driven by industrialization in the 1950s led to uncontrolled expansion, particularly in heavily migrant-receiving cities like Ankara, İstanbul, and İzmir, resulting in the swift emergence of gecekondu areas due to inadequate housing provisions (Uzun, 2006). Keleş (1972) defined gecekondu as “a social phenomenon” that emerged during the Second World War. After World War II, gecekondu villages appeared in Türkiye's urban landscape, while occasional shanties had already been built, most notably in Ankara during the building boom after the city's designation as the contemporary capital of the new Republic in 1923 (Şenyapılı, 2004).

The economic strategy of the time, which emphasized rapid industrialization, meant diverting the national budget toward industrial expansion and the construction of infrastructure, including highways and power plants (Öncü, 1988). The emergence of gecekondus is closely related to the lack of financial support for social housing projects for poor migrants in this economic model. This situation has encouraged the emergence of gecekondus and is based on migrants finding their own solutions to meet their own housing needs. In this context, it can be said that gecekondu settlements were a reflection of poor migrants solving the housing problem with their own efforts.

Small-scale farmers, sharecroppers, and agricultural tenants, in particular, began relocating to large cities, most notably İstanbul, Ankara, and İzmir, in search of other means of subsistence (Şenyapılı, 2004). Cities were not prepared to accommodate such a large influx of newcomers, many of whom were impoverished. This resulted in the inability of urban infrastructure to accommodate the rapidly growing

population and the proliferation of gecekondu. Poor migrants tried to find a solution to this challenge by building their own housing, but this process created new problems of urbanization.

To summarize, in the end of the literature review, the key concepts and linkages of the thesis are provided by addressing important issues such as justice, social justice, spatial justice, urban services and slum development, which are the main topics of the thesis. An in-depth review of relevant literature helps researchers to understand the importance of justice in urban planning and management and the challenges faced in these areas. It also provides clues on how urban services can be integrated with the principle of justice, emphasizing that ensuring social and spatial justice is closely related to the effective distribution of urban services.

The literature review also focuses on the existence of planned and unplanned areas and their impact on the delivery of urban services. Planned areas are generally areas that have been subjected to formal urban planning processes and where infrastructure and services have been developed within the framework of a specific plan. Unplanned areas, on the other hand, are often organically formed as a result of rapid population growth and urban expansion, often lacking infrastructure and basic services. This difference can lead to imbalances and injustices in the distribution of urban services. In this context, the literature review provides an important tool for understanding the differences in access to urban services between planned and unplanned areas and the issues of justice in these areas.

CHAPTER 3

STUDY AREA AND METHODOLOGY

In this chapter, the study area and the methodology used to analyze access to basic urban services from the perspective of spatial justice are explained. Firstly, the study area of the thesis is presented at district and neighborhood level and detailed information about the area is given. Afterwards, the methods used for the analysis of existing situation in accessibility, quality and provision of basic urban services in planned and unplanned areas, examining the situation in the Mutlu Neighborhood of Ankara, which are among the focal points of the study, are discussed in detail. In this context, the reasons for the selection of the study area, data collection process and analytical methods will be explained in this chapter. This information will emphasize the methodological foundations of the thesis and will once again demonstrate the importance of spatial justice in the process of understanding and resolving inequalities in access to urban services.

3.1 General Information about the Study Area

According to Wekerle (1985), mainly in sociological research, neighborhoods have traditionally been studied as a social structure in which fundamental connections are established and upheld. However, according to him, the neighborhoods should be examined also as service providers. Neighborhoods also have a social structure with the human communities they contain. In addition, since they are smaller units compared to cities, human relations may have a more special and complex structure that can be handled separately. However, this does not diminish the service provision role of neighborhoods; on the contrary, it strengthens it. Also, in this thesis study, a neighborhood's access to services will be analyzed. The selected neighborhood is located in Mamak district of Ankara, one of the poorest districts in terms of socio-

economic status. With its planned areas and slum area, it offers a diverse area for analyzing access and spatial justice issues.

3.1.1 In the context of Ankara, Mamak District

Mamak district is one of the central districts of Ankara and is surrounded by Altındağ in the north, Elmadağ in the east, Çankaya and Elmadağ in the south, and Çankaya and Altındağ in the west (Figure 6). Mamak district does not appear in the first city plans of Ankara, and urbanization in the district started in the 1930s (Haghrhmani, 2017). Mamak district, which was originally affiliated to Çankaya district, became a district on 29.11.1983 with the law numbered 2963. It can be said that Mamak is at a low socio-economic level compared to other districts of Ankara. In Ankara, Mamak, together with Sincan, Yenimahalle, Çankaya, Altındağ, Etimesgut, Keçiören, Gölbaşı where slums and poverty neighborhoods are common (Korkmaz et al., 2019). Mamak district, where there are many slum areas today, has also been home to many urban transformation projects since the past.

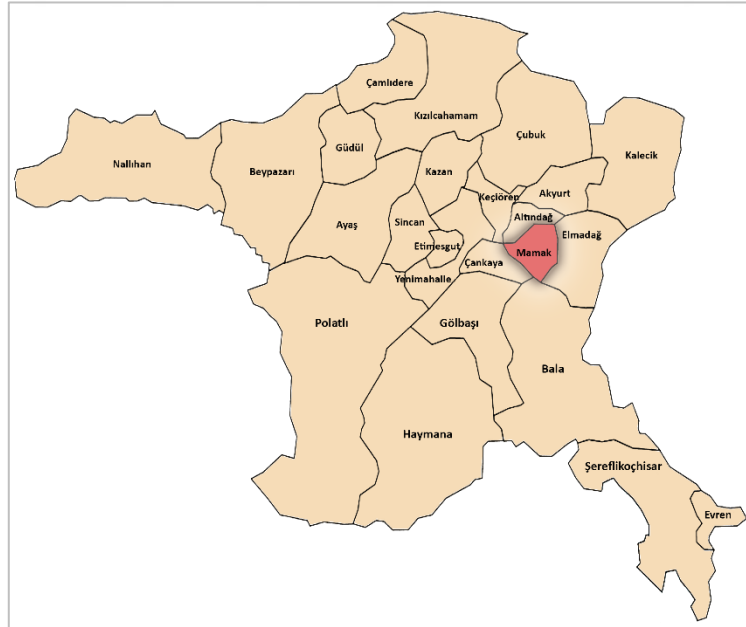


Figure 6. The Districts of Ankara and Location of Mamak District

While it was the most important recreational area of Ankara from the beginning of the Republic until the 1950s, famous for its vegetable and fruit gardens and clean drinking water, it has turned into its current image due to unplanned urbanization and wrong policies implemented after the 1950s (Göközkut & Somuncu, 2019). The internal migration that exploded in the 1950s and the resulting shanty neighborhoods negatively affected Mamak, which was then a neighborhood of Çankaya (Firat, n.d.). Since Mamak is the eastern entrance of Ankara, it is the first stop for those migrating to Ankara from the east of the country (Göközkut, 2016, as cited in Göközkut & Somuncu, 2019). One of the reasons why Mamak district was attractive for citizens coming from rural areas to settle in the 1950s was the Ankara-Kayaş Suburban Train Line, which was put into service in the first years of the Republic (Aslan, 2017). Ankara-Kayaş Suburban Train Line was established in Mamak district in 1929 and this line, which coincides with the Republican period, is important in terms of being Ankara's first public transport (Haghrhmani, 2017). The fact that this line passed through the Mamak region at the beginning of urbanization in Ankara attracted people and invited unplanned settlement. In the plans made with the special interest of Menderes, the prime minister of the period in the 1950s, a planned construction was initiated in the Demirlibahçe region, but this was not enough to prevent rapid squatting (Aslan, 2017).

All these factors have made Mamak district one of the areas of Ankara with the highest tendency of squatting over time. These slums, which increased over time, could not adapt to urban life and turned into socially and physically worn-out idle urban areas that could not respond adequately to the needs of slum dwellers. In the 2000s, the district of Mamak wanted to get rid of the perception of a slum area, but due to the high number of depressed areas in the region, transformation was not possible with rehabilitation zoning plans, and this situation paved the way for the implementation of large-scale urban transformation projects in Mamak (Aslan, 2017). Since then, many urban transformation projects have been implemented in Mamak. In particular, the Yeni Mamak Urban Transformation Project is the largest-scale one.

There are 64 neighborhoods in Mamak district (Table 3). This study will focus on Mutlu Neighborhood, which has been partially transformed and planned, but still has the characteristic of containing slum areas.

Table 3. Neighborhoods of Mamak District (TÜİK, 2021)

Neighborhood	Population	Neighborhood	Population
Abidinpaşa	12.504	Karaağaç	6.958
Akdere	10.370	Karşıyaka	2.557
Akşemsettin	16.491	Kartaltepe	6.970
Altiagaç	7.487	Kayaş	6.484
Altınevler	6.360	Kazım Orbay	11.203
Araplar	3.902	Kıbrisköy	8.835
Aşık Veysel	14.541	Kızılca	768
Bahçeleriçi	7.984	Köstence	531
Bahçelerüstü	13.113	Kusunlar	428
Balkiraz	10.378	Kutlu	22.692
Başak	35.346	Kutludüğün	4.599
Bayındır	407	Küçük Kayaş	19.266
Boğaziçi	6.063	Lalahan	2.841
Bostancık	3.746	Mehtap	7.637
Cengizhan	26.162	Misket	12.202
Çağlayan	8.052	Mutlu	28.524
Çiğiltepe	4.436	Ortaköy	670
Demirlibahçe	12.999	Peyami Safa	18.340
Derbent	3.853	Saimekadın	9.485
Diriliş	9.428	Şafaktepe	11.811
Dostlar	1.041	Şahap gürleri	9.708
Durali Alıç	38.974	Şahintepe	27.876
Dutluk	273	Şehit Cengiz Topel	2.092
Ege	13.679	Şirintepe	8.992
Ekin	14.538	Tepecik	947
Fahri Korutürk	16.295	Tuzlucaayır	12.460
General Zeki Doğan	32.406	Türközü	13.431
Gökçeyurt	1.034	Üreğil	6.840
Gülveren	9.830	Yeni Bayındır	14.191
Harman	8.413	Yeşilbayır	27.426
Hürel	10.456	Yukarı İmrohor	202
Hüseyingazi	8.140	Zirvekent	6.753

3.1.2 In the Context of Mutlu Neighborhood

In this section, firstly, the geographical and social characteristics of Mutlu Neighborhood, which was selected as the study area, will be discussed. Mutlu Neighborhood has a texture that bears the traces of both urban planning and unplanned development (Figure 7). The neighborhood has a population of approximately 28.000 people (Table 3).



Figure 7. The Map of Mutlu Neighborhood (taken from Google Earth)

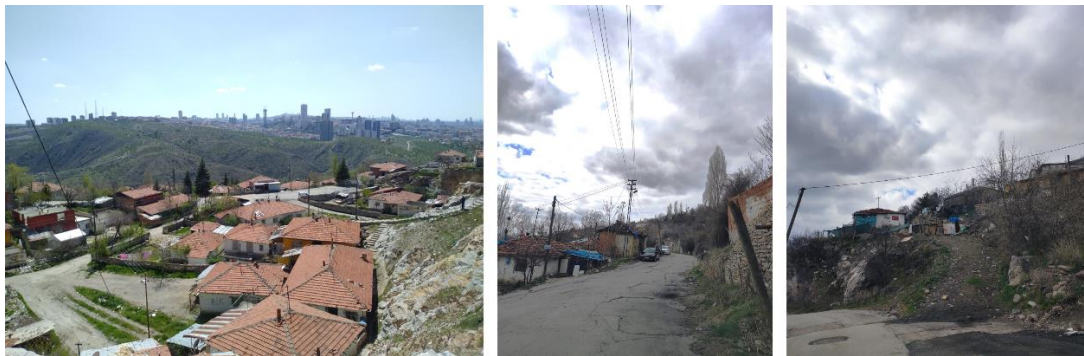


Figure 8. Photos from unplanned area of the neighborhood (Taken by the author)



Figure 9. Photos from planned area of the neighborhood (Taken by the author)

The neighborhood can generally be described as a low socio-economic neighborhood. The population surveyed during the fieldwork also supports this. In general, the educational level of the neighborhood residents is high school and middle school. This can be attributed to the low level of education and may indicate that the neighborhood is generally living in an environment with limited economic opportunities. In addition, the density of the elderly population is also noteworthy. This may indicate limited access to education and job opportunities for the younger generation or an increase in the elderly population due to migration.

The following figures and tables present the socio-demographic characteristics of the neighborhood, taken from the “Endeksa” platform, which provides data on the real estate and housing market. The socio-demographic characteristics of the neighborhood are an important key to understanding how the local economy and social structures are shaped. This data shows the composition of the community, income distribution, education level, and many other factors. As a result, careful provision of socio-demographic data is an important tool for understanding potential problems and opportunities in the neighborhood.

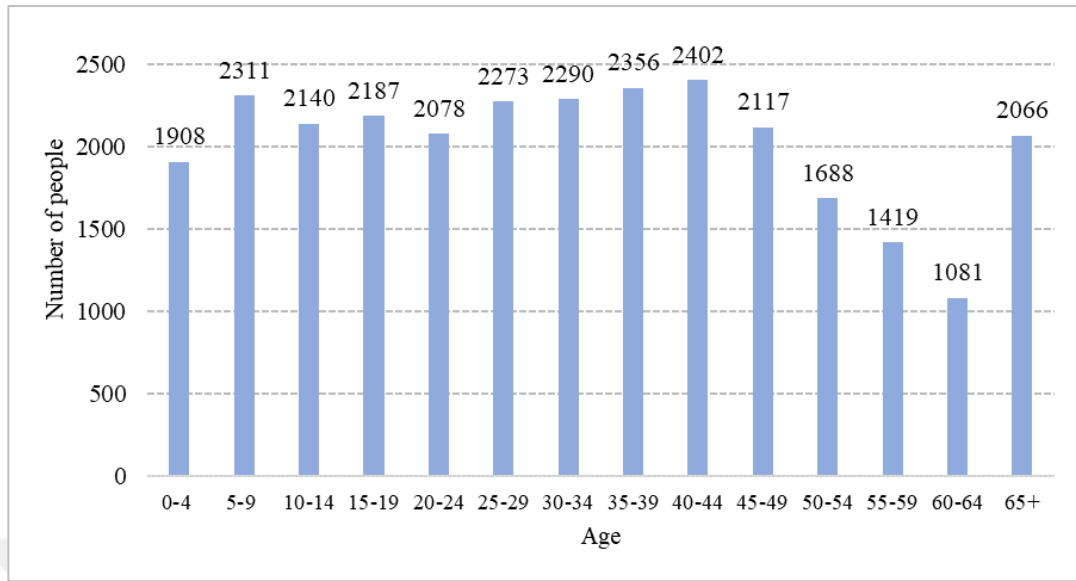


Figure 10. Mutlu Neighborhood Population Distribution by Age

According to the data in Figure 10, there are significantly more people aged 65 and over in Mutlu neighborhood, indicating that the number of elderly in the neighborhood is significantly higher compared to other age groups. This likely represents a large proportion of the elderly population in the neighborhood. The concentration of the elderly population can have various social, economic and societal impacts. For example, increased need for health services and social assistance may have an impact on the quality of life and well-being of residents in the neighborhood. In addition, a higher proportion of elderly people may indicate the need to plan infrastructure and services taking into account the age structure of the community.

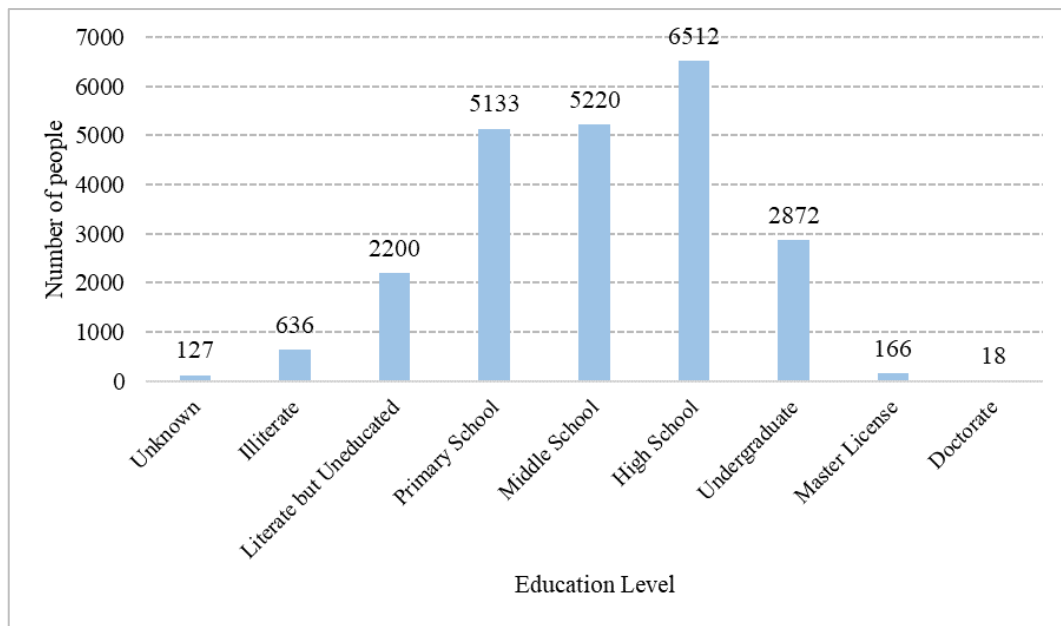


Figure 11. Education Level in Mutlu Neighborhood

According to the data in Figure 11, the high number of middle school and high school graduates in Mutlu neighborhood indicates that the education level in general is low. This suggests that most of the people in the neighborhood are only able to complete basic education and struggle to reach higher levels of education. The high number of secondary and high school graduates may indicate limitations in access to further education opportunities or inadequacies in the quality of education. Therefore, the high number of middle and high school graduates indicates that the level of education in Mutlu neighborhood is low, which may have negative socio-economic consequences (Figure 12).

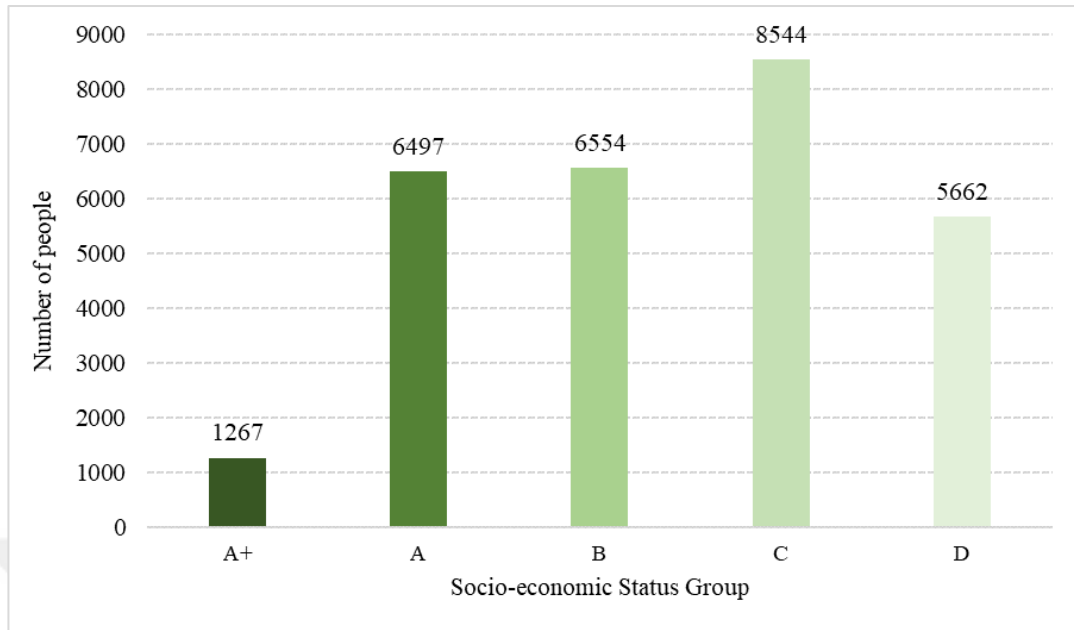


Figure 12. Mutlu Neighborhood Population Distribution by Socioeconomic Status

3.2 Methodology

The concept of spatial justice is a comprehensive concept that can be included in many disciplines. It can be observed that it is located at a point where the fields of geography and social sciences intersect. The fact that spatial justice concerns many disciplines at the same time causes some methodological complexities. An appropriate standard for gauging justice continues to be a subject of intense debate (Robeyns & Brighouse, 2010). In this study, indicators have been determined based on the provision of basic urban services in order to measure and understand spatial justice (See Section 2.3).

In this context, a survey has been prepared for the residents of Mutlu Neighborhood, which is the focus area of the thesis, in relation to the 8 basic urban services identified. Together with the survey results, the total score for each basic urban service was determined and the satisfaction of the residents with the services identified as indicators was revealed. In this way, the basic urban services that have an impact on spatial justice in the neighborhood and how they affect spatial justice

will be comprehended. This thesis, evaluates spatial justice based on the provision of basic urban services in a neighborhood's planned and unplanned areas. By analyzing the survey responses and comparing them across planned and unplanned areas, the study will be able to identify spatial inequalities and injustices within the neighborhood.

This section will assist in understanding the tools used to analyze access to basic urban services. These tools are important because access to urban services has profound impacts on a community's well-being and quality of life. Inequalities in access to these services play a critical role in identifying social and spatial injustices. Proper use of the tools provides access to important data for identifying, understanding and even correcting such injustices through further work. In this context, firstly, the literature review on the survey method used in data collection and the data obtained from the field study will be presented, and then the statistical methods used in the analysis of these data will be contributed from the literature.

3.2.1 Data Collection Method

The survey method has become a primary instrument for examining modern society, often referred to as "a telescope on society" as described by House et al. (2004). Listening to the views of local people is also of great importance in determining spatial injustice. Surveys to be conducted within the scope of field studies play a critical role in understanding the existing situation and spatial injustices. These surveys not only determine the current situation, but also reflect the experiences and perceptions of neighborhood residents. In understanding spatial justice, not only physical access and distribution, but also the experiences, perceptions and emotional context of individuals are important. Surveys provide an important tool to identify such emotional and perceptual dimensions.

An example to use of surveys in understanding the existing situation and spatial injustices can be given by the study of Bassett in 2013, named "*The role of spatial*

justice in the regeneration of urban spaces: Groningen, The Netherlands". In Bassett's study, surveys were used as the primary tool for data collection. The questions asked in the surveys used in the study are generally questions that inquire about neighborhood perception, satisfaction with the neighborhood, quality of life, residence and basic information such as age, education and occupation. The questions were developed on a Likert scale with "strongly agree to strongly disagree" intervals to determine relative positive or negative attitudes towards specific issues, and the use of these summative scales allowed for the use of both qualitative and quantitative results (Bassett, 2013).

Some authors describe a survey as a technique for gathering data, serving as a facilitative instrument in the collection of information (Hackett, 1981). However, according to Gürbüz (2017), the survey serves a purpose beyond mere data collection. Surveys are predominantly employed to collect information on facts, views, and attitudes, with the primary objectives of survey research being description, explanation, and investigation (Babbie, 1973, as cited in Hackett, 1981). With this objective, surveys are structured to collect data using systematic enquiry techniques and aim for a comprehensive understanding of the topic. By carefully analyzing the survey responses, researchers can discover patterns, relationships and insights, thereby fulfilling the identification, explanation and investigation objectives identified by Babbie.

Babbie (1995) suggested that survey research represents the most effective approach for social scientists seeking to gather firsthand data to describe a population that is too vast to be directly observed (as cited in Watson, 1998). By providing detailed information on specific topics, surveys help researchers better understand social, cultural and economic dynamics. In this context, it can be said that survey research is widely used in various disciplines in social sciences and is recognized as a reliable tool for collecting comprehensive data.

In the study of Watson (1998) there are defined five methods for a survey research: Mail Surveys, Telephone Surveys, Face-to-Face Surveys, Drop-off Survey,

Electronic Survey. The term "drop-off survey" best describes the method of survey research conducted within the scope of this thesis. According to Salant and Dillman (1994), this method, in which the survey is hand-delivered to the participants and the participants fill out the questionnaire and return it to the researcher, is the most appropriate method for a small community or neighborhood survey where the participants are not spread over a large area (as cited in Watson, 1998). The survey forms prepared within the scope of this thesis were also hand delivered to the residents of the neighborhood and the participants were asked to fill in the surveys and return them to the researcher. With this method, receiving the surveys personally helps participants to understand the questions and answer them appropriately. In addition, direct interaction with the participants avoids any confusion or ambiguity in the survey process. This approach can improve survey reliability and data quality and make the results of the research more robust.

The scale of the survey is an important ingredient in developing a survey. In this thesis, 40 questions prepared on a 5-point Likert scale were asked. Likert-scale surveys offer several benefits, including the efficient collection of data from large participant pools, the generation of reliable estimates of individual abilities, the possibility for establishing the validity of interpretations through various methods, and the ability to effectively integrate and compare data with qualitative techniques like open-ended questions, participant observation, and interviews (Nemoto & Beglar, 2014). Every item should aim to test a single concept and should be formulated using clear, easily comprehensible language to ensure that participants interpret the item's meaning without ambiguity (Wolfe & Smith Jr, 2007).

Another issue which is important in survey studies is the sample of the survey. Scholars utilize two principal sampling techniques: probability sampling permits the specification of the probability that an element will be chosen for the sample, whereas nonprobability sampling does not allow for the estimation of this probability (Haute, 2021). Random selection of participants or the use of appropriate sampling techniques can increase the generalizability of the results of the research. In addition, participants should participate voluntarily and in an informed manner and their

confidentiality should be protected. As stated by Brown (1947), probability or random sampling avoids bias to the maximum extent possible but may necessitate the largest time and energy expenditure for a given level of sample error.

In this thesis, probability sampling technique will be used to ensure representativeness and generalizability of the results. Under probability sampling techniques, there are four headings: Simple Probability Sampling, Stratified Probability Sampling, Cluster Probability Sampling and Systematic Sampling (Christensen et al., 2011). Since the aim of the thesis provide a comparative analysis between planned and unplanned area of Mutlu Neighborhood, field study realized in these two different parts of the neighborhood. Therefore, the participants of survey should be from both of these areas. Taken in this manner, *Cluster Probability Sampling* methodology has been utilized for sample selection in the surveys. Cluster sampling involves the random selection of large groups within the population, followed by the collection of a second sample from each group, so creating a multistage sampling process (Hackett, 1981). In the first stage of sampling, the researcher chooses clusters at random as opposed to individual units (Christensen et al., 2011). In line with the purpose of this study, the neighborhood is first examined as a planned area and an unplanned area, and the participants are randomly selected within these two areas.

The definition of the population to be examined, including factors like location and particular criteria like age, gender, or occupation, is guided by the research topic or goal of the study (Banerjee & Chaudhury, 2010). The selection of participants in survey research is a critical issue in terms of the reliability and representativeness of the research. Participant selection should be made in accordance with the objectives and target group of the research. In this study, the survey participants have been selected from the residents of Mutlu Neighborhood of Mamak District within the scope of the purpose of the thesis and the research questions. In addition, within the scope of the research questions, the balance of the participants living in the planned and unplanned areas has been considered.

If the research involves comparing distinct population subgroups, it's important to include demographic questions, ensuring there are an adequate number to fulfill research requirements while being mindful of potentially compromising anonymity (Batterton & Hale, 2017). In this context, in order to meet the research needs in this thesis, the participants were asked about their age, gender, education, employment status, disability status and whether they lived in a planned or unplanned area in the neighborhood. No further details were requested and participants were asked to refrain from disclosing their personal information. To ensure anonymity, the participants' personal information was concealed using a specific coding system and was only considered collectively in the data analysis process. This approach was adopted to ensure participants' confidentiality while maintaining the scientific integrity of the research.

Surveys are an effective way to give voice to local people in this context and to directly understand their experiences, needs and demands. Survey research offers insights into the attributes, actions, or viewpoints of a specific population, as defined by Salant and Dillman (1994) (as cited in Watson, 1998). Surveys can serve as a powerful tool to investigate multifaceted aspects of spatial justice. By engaging directly with residents, researchers have the opportunity to capture the experiences and perspectives of individuals who walk and live in the neighborhood on a daily basis. They allow researchers to collect quantitative and qualitative data that can provide a comprehensive understanding of the challenges and opportunities faced by different groups within a community. This approach allows for a deeper understanding of spatial injustices and the development of solutions appropriate to the needs of local communities.

3.2.2 Presentation of the Collected Data

In this section, the data obtained from the field studies that form the basis of the thesis study will be presented in detail. The field study represents a critical step in the creation of the data set that forms the basis of the research. As part of the field

studies, surveys conducted with the participants will also be shared. The profile of participants to the surveys will be presented as well.

Within the scope of the thesis study, the surveys conducted with the individuals living in Mutlu Neighborhood are at the center of the research. The surveys were designed using a 5-point Likert scale and were administered to measure the participants' views on their access to urban services, the quality and distribution of services. The questions of the surveys were carefully selected to understand the experiences and perceptions of the participants (see Appendix A). Separate Likert scale questions were prepared for each service in order to assess access to basic urban services defined under the heading 2.3 Basic Urban Services (see Figure 5). These services are “Street Network (sidewalks), Public Transport Network, Water and Sewerage Network, Electricity Network,” i.e. urban services that are distributed through a network, and “Neighborhood Parks, Education Facilities, Health Facilities, Municipal Service Buildings (Library, Public Education Center, Family and Life Center, etc.),” i.e. urban services that provide point services. For each of these eight basic urban services, five different questions were asked to understand the residents' experiences in the neighborhood.

Moreover, in order to broaden the scope of the research and understand the deeper factors affecting access to services, open-ended questions were also asked to the participants. Open-ended questions allow participants to freely express their thoughts and experiences. Such questions provide participants with the opportunity to share their perspectives and experiences without being limited within a specific framework. In this way, researchers can better understand the emotional and personal reactions of the participants and better assess the current situation through these reactions.

Open-ended questions also help participants to elaborate on their experiences and better understand the issues beyond the scaled answers. These questions increase the depth of the research and ensure the diversity of the data provided by the participants. They also provide a valuable source of qualitative data for researchers, as they allow

participants to express their personal experiences and suggestions. In this thesis study, apart from the responses provided by the neighborhood residents to the survey questions, the objective was to recognize the issues they have faced and may encounter while dealing with urban services, and to gain insight into other diverse perspectives. Although it was planned to get more information from the residents through open-ended questions, most of the participants were not willing to answer these questions. However, the author tried to find answers to these questions in general terms by chatting with the residents of the neighborhood while they were filling out the survey, so that a general comment can be made about the residents' approach.

During the data collection process, an interview was first conducted with the neighborhood mukhtar. The neighborhood mukhtar was first informed about the subject and purpose of the thesis, and general information about the neighborhood and the residents was obtained. This interview with the neighborhood mukhtar was the starting point for creating a general understanding of the neighborhood. It also provided an insight into the needs and demands of the people of the neighborhood and the resources available in the neighborhood. During the interview, the neighborhood mukhtar discussed the daily lives of the residents, their social interactions and potential problems in the neighborhood. In addition, the social structure, cultural dynamics and community relations in the neighborhood were also discussed.

A survey comprising 40 questions on a 5-point Likert scale and 8 open-ended questions was developed (Appendix A). Fieldwork commenced in the neighborhood, where residents were approached in public spaces such as artisan stores, taxi stops, and neighborhood cafes. Potential participants were invited to take part in the survey, and those who agreed were provided with survey forms to complete. For individuals who were above a certain age or unable to read and write, the author of the survey verbally administered the questions and recorded the responses on behalf of the participant. These responses were then transcribed into the survey forms by the author.

According to the data in Table 4, the average age of the participants is 51,07 years, while the minimum age is 26 and the maximum age is 82. 57,1% of the participants were male and 42,9% were female. The majority of the participants were 38,1% high school graduates and 76,2% were non-employed. While 52,4% of the participants live in planned areas, 47,6% live in unplanned areas. The demographic characteristics of the participants in the studied neighborhood reveal various findings.

Table 4. Demographic Features of the Neighborhood

	Mean $\pm$ s. deviation / frequency (n)	Median (min. - max.) / percentage (%)
Age	51,07 $\pm$ 14,00	49,50 (26,00 - 82,00)
Gender		
Male	24	57,1
Female	18	42,9
Education Level		
Illiterate	4	9,5
Primary S.	10	23,8
Middle S.	9	21,4
High School	16	38,1
Higher E.	3	7,1
Employment Status		
Employee	10	23,8
Non-emp.	32	76,2
Place of Residence		
Planned	22	52,4
Unplanned	20	47,6

First of all, the average age of the participants is 51,07, indicating that the population in the neighborhood is generally middle-aged and above. This also supports the general population structure of the neighborhood (Figure 10). The fact that the minimum age is 26 and the maximum age is 82 also shows that the age distribution is quite wide and that there are people from different age groups in the neighborhood.

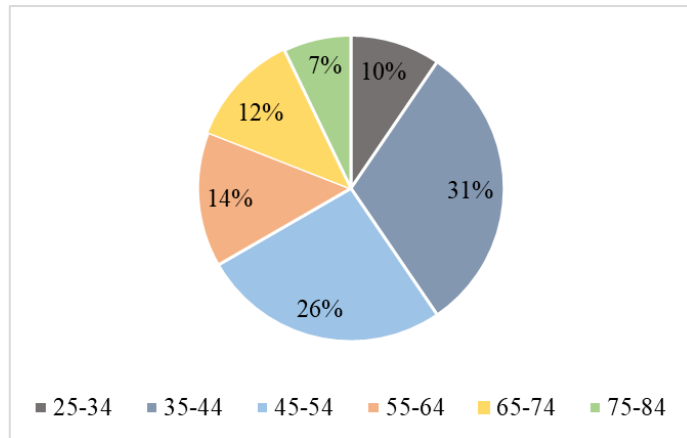


Figure 13. Age Distribution of Participants in the Survey

When the gender distribution is analyzed, it is seen that 57,1% of the participants are male and 42,9% are female. However, it was observed that this distribution was due to the fact that most of the participants encountered during the fieldwork were male. This may be due to the fact that most of the women in the neighborhood are housewives and do not go outside. This could cause a potential bias that could affect the participation rates of the fieldwork and prevent a gender-balanced representation of the data.

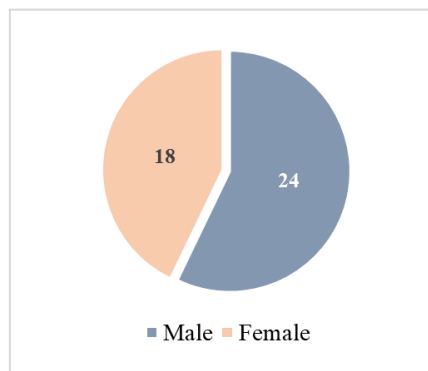


Figure 14. The Number of Male and Female Participants in the Survey

In terms of education level, it is noteworthy that the majority of the participants (38,1%) are high school graduates and 76,2% of them are non-employed. This suggests that the relationship between the labor market and the level of education in the neighborhood should be examined in more depth.

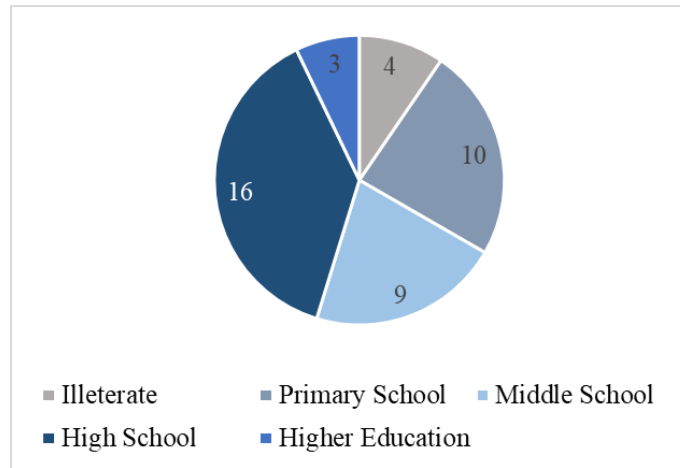


Figure 15. Education Level of the Survey Participants

In terms of place of residence, 52,4% of participants live in planned areas and 47,6% in unplanned areas. This distribution is intentional in order to understand that there are certain differences in housing planning and infrastructure in the neighborhood and the impact of these differences on the residents. In other words, in accordance with the purpose of the thesis, the participants were selected from both areas in a balanced manner in order to understand the problems experienced by the residents of the planned and unplanned areas.

Within the scope of the survey conducted in the field study, there are 40 questions, 5 questions each on a 5-point Likert scale under 8 basic urban services. The table below presents the ratios of participants' answers to these question (Table 5). It is provided to give a general insight. Detailed analysis will be made in the following sections. This table provides an important starting point for understanding the issues that the research focuses on and how participants view these issues. In the following sections, it will be focused on this data in more detail and conduct an in-depth analysis of participants' responses. This analysis will help us better understand participants' demands, satisfaction levels and priorities under each public service.

Table 5. Distribution of Responses to Survey Items

Strongly disagree		Disagree		Average		Agree		Strongly agree	
n	%	n	%	n	%	n	%	n	%

Street Network											
SN1	11	26,2	15	35,7	3	7,1	13	31	0	0	
SN2	15	35,7	15	35,7	3	7,1	9	21,4	0	0	
SN3	15	35,7	9	21,4	7	16,7	8	19	3	7,1	
SN4	19	45,2	16	38,1	0	0	4	9,5	3	7,1	
SN5	24	57,1	10	23,8	2	4,8	6	14,3	0	0	
Public Transport Network											
PTN1	6	14,3	10	23,8	2	4,8	21	50	3	7,1	
PTN2	10	23,8	6	14,3	6	14,3	19	45,2	1	2,4	
PTN3	3	7,1	12	28,6	23	54,8	4	9,5	0	0	
PTN4	4	9,5	6	14,3	26	61,9	5	11,9	1	2,4	
PTN5	5	11,9	14	33,3	5	11,9	12	28,6	6	14,3	
Water and Sewerage Network											
WS1	2	4,8	2	4,8	0	0	26	61,9	12	28,6	
WS2	4	9,5	4	9,5	0	0	25	59,5	9	21,4	
WS3	6	14,3	17	40,5	15	35,7	4	9,5	0	0	
WS4	2	4,8	25	59,5	13	31	2	4,8	0	0	
WS5	4	9,5	24	57,1	7	16,7	4	9,5	3	7,1	
Electricity Network											
EN1	1	2,4	6	14,3	4	9,5	21	50	10	23,8	
EN2	5	11,9	19	45,2	4	9,5	12	28,6	2	4,8	
EN3	1	2,4	14	33,3	22	52,4	5	11,9	0	0	
EN4	5	11,9	18	42,9	14	33,3	5	11,9	0	0	
EN5	8	19	24	57,1	3	7,1	6	14,3	1	2,4	
Neighborhood Parks											
NP1	5	11,9	3	7,1	2	4,8	23	54,8	9	21,4	
NP2	2	4,8	3	7,1	1	2,4	21	50	15	35,7	
NP3	20	47,6	11	26,2	3	7,1	6	14,3	2	4,8	
NP4	8	19	5	11,9	3	7,1	20	47,6	6	14,3	
NP5	7	16,7	15	35,7	9	21,4	9	21,4	2	4,8	
Education Facilities											
EF1	6	14,3	8	19	19	45,2	7	16,7	2	4,8	
EF2	7	16,7	5	11,9	23	54,8	3	7,1	4	9,5	
EF3	5	11,9	2	4,8	18	42,9	10	23,8	7	16,7	
EF4	3	7,1	10	23,8	26	61,9	3	7,1	0	0	
EF5	6	14,3	7	16,7	22	52,4	3	7,1	4	9,5	
Health Facilities											
HF1	5	11,9	15	35,7	0	0	22	52,4	0	0	
HF2	5	11,9	15	35,7	3	7,1	15	35,7	4	9,5	
HF3	2	4,8	5	11,9	2	4,8	28	66,7	5	11,9	
HF4	4	9,5	17	40,5	15	35,7	3	7,1	3	7,1	

HF5	4	9,5	11	26,2	6	14,3	20	47,6	1	2,4
Municipal Service Buildings										
MSB1	4	9,5	24	57,1	8	19	6	14,3	0	0
MSB2	5	11,9	13	31	6	14,3	18	42,9	0	0
MSB3	5	11,9	10	23,8	10	23,8	15	35,7	2	4,8
MSB4	3	7,1	10	23,8	17	40,5	9	21,4	3	7,1
MSB5	6	14,3	12	28,6	14	33,3	9	21,4	1	2,4

The surveys constitute an important source of data to understand and identify spatial inequalities in access to urban services in Mutlu Neighborhood. This data will be analyzed in more detail in the analysis section and will provide an in-depth understanding of the nature and effects of spatial injustices. The analysis of the survey data aims to understand the current situation of residents' satisfaction with service provision and thus address the problems of injustice that cause dissatisfaction.

3.2.3 Statistical Methods used in the Thesis

In this section, the statistical methods employed to analyze the data are described. The use of statistical methods in data analysis helps to gain an understanding of the data, identify its characteristics and make predictions for the future. However, it is essential that each method is applied properly and that its results are interpreted correctly.

In this thesis, a measurement of spatial justice or injustice is made through the distribution and accessibility of basic urban services in Mutlu Neighborhood. Within this context, a 5-point Likert scale survey was prepared (see Appendix A) and this survey was applied to 42 participants, 18 women and 24 men, by selecting the residents of the neighborhood by cluster sampling method. The survey scale developed in this context constitutes an important part of the study. This survey scale should be a valid and reliable scale that can be used in a scientific study. As

mentioned by Louangrath (2018), reliability and validity are two requirements that a scientific study must fulfill.

The scale used in the thesis is a scale developed and used for the first time by the author. Therefore, the validity and reliability of the survey scale is of great importance. The ability of a measurement tool to precisely evaluate the particular quality it is intended to measure without inadvertently capturing additional traits is known as validity (Tekin, 1977). Conversely, reliability – which is regarded as an essential feature of any scale – indicates the consistency of measurement values acquired from repeated measurements made with the same measurement instrument under uniform conditions (Carmines & Zeller, 1982; Gay, 1985).

Since a new scale was used and in order to obtain a scoring system, some steps were taken to test the validity and reliability of the scale. First, to examine internal consistency and convergent validity, the factor loadings of the 40 items in the survey scale (see Appendix A) have been analyzed (see Table 6). Factor loading, a coefficient indicating the correlation between items and factors, is anticipated to be high for items within the factor they belong to (Büyüköztürk, 2002). In addition, the CR (Composite Reliability) values of the items, which is a value measuring the internal consistency of a factor, have been studied. Composite reliability (CR) values have been calculated from the factor loadings obtained by factor analysis. The composite reliability criteria are considered satisfied when the composite reliability value is higher than 0,70 (Raykov, 1997).

For testing convergent validity, the average variance extracted (AVE) value serves as a measure of convergent validity, with a minimum threshold of $AVE \geq 0.50$ indicating its confirmation (Baykan & Ünal, 2022). Furthermore, Cronbach's alpha value, which is frequently used in Likert-type scales, is an important step in testing the scale. Cronbach's alpha value is a measure used to evaluate or question the homogeneity of items, and a high coefficient ($\geq 0,60$) indicates that the items in the scale are consistent with each other and measure the same characteristic (Uzunsakal & Yıldız, 2018).

After these steps, the reliability and validity of the 40 items have been determined and the discriminant validity of the questionnaire scale has also been questioned (see Table 7 and Table 8). Discriminant validity assesses how distinct constructs truly diverge from each other empirically and gauges the extent of disparities between overlapping constructs (Leguina, 2015). For this assessment, Fornell-Larcker and Heterotrait-monotrait (HTMT) ratio of correlation approaches have been taken into consideration. The Fornell-Larcker criterion (FL criterion), proposed by Fornell and Larcker in 1981, is a guideline used for evaluating discriminant validity, relying on a comparison between squared construct correlations and the AVE (Henseler et al., 2015). Also, if the HTMT value falls below 0,90, it indicates that discriminant validity has been confirmed between two constructs measured reflectively (Ringle et al., 2024).

The tests conducted resulted in a valid and reliable survey scale (see Appendix B). Then, for the purpose of this thesis, comparisons will be made to show the satisfaction levels for the 8 indicators measured. For this, Mann-Whitney U test and t-tests have been used to compare groups. The Mann-Whitney U test, also known as the Wilcoxon rank sum test, compares two groups on a single ordinal variable without assuming any specific distribution, as introduced by Mann and Whitney in 1947 and Wilcoxon in 1945 (McKnight & Najab, 2010). In contrast, the independent samples t-test, also comparing two groups, requires the variable to be measured at the interval or ratio level and assumes normal distribution. Hence, the Mann-Whitney U test is often considered the nonparametric counterpart of the parametric t-test, both aiming to assess group differences on a single continuous variable, albeit with different distribution assumptions. The Mann-Whitney U test becomes preferable when data fail to meet the parametric assumptions of the t-test (McKnight & Najab, 2010).

The main purpose of measurement in scientific research is to evaluate and decide on a subject (Ercan & Kan, 2004). In this thesis, a scale has been developed to evaluate spatial justice through the experiences of neighborhood residents and necessary evaluations have been made with this new scale.



CHAPTER 4

ANALYSIS AND FINDINGS

In this chapter, the analysis of the data collected through surveys using various statistical methods is presented. The data has been subjected to various tests and meaningful results have been obtained. Then, the findings are interpreted and the results are evaluated from a spatial justice perspective. This section goes beyond the statistical findings and focuses on understanding the underlying causes of spatial inequalities. The process of data analysis and interpretation provides important insights that will help to understand the inequalities in access to urban services for residents of Mutlu Neighborhood.

4.1.1 Statistical Analysis of the Data

First of all, to summarize the statistical methods used, the survey data were analyzed with SmartPLS 3 and IBM SPSS V23 software. Compliance with normal distribution was examined by Shapiro-Wilk test. Partial Least Squares Structural Equation modeling was used to examine the reliability and validity of the basic urban services satisfaction scale. Mann-Whitney U test was used to compare satisfaction scores that were not normally distributed according to paired groups. Independent two-sample t-test was used to compare normally distributed satisfaction scores according to binary groups. The relationships between quantitative data that were not normally distributed were analyzed with Spearman's rho correlation coefficient. The results of the analysis were presented as mean $\pm$ s. deviation and median (minimum - maximum) for quantitative data and frequency and percentage for categorical data. The significance level was taken as $p < 0,050$.

When the validity and reliability of the satisfaction survey consisting of a total of 40 items are examined, the factor loadings of the items should be positive and above

0,4. If there is a negative factor loading and even if this item is not a reverse, negative item, it should be removed from the scale. In other words, it could be a positive item, but it shows that it is not clearly understood by the participants.

There are reverse and negative items in the survey and these items usually appear as the fourth and fifth items under each basic urban service. After these items are reversely coded, these procedures are carried out. However, if a negative factor loading item is encountered despite the reverse coding of those items, that item should be removed completely. This indicates that the item was not fully understood by the participants or that a consistent answer was not given. Based on these; EF4, NP5, WS4, PTN3, PTN4 items were excluded from the scale because their factor loadings were negative, EN1, EN2, WS3, HF5, MSB4, HF3 items were excluded because their factor loadings were lower than 0,4, and WS1 item was removed from the scale because it violated discriminant validity. The results of the basic urban services satisfaction survey scale, which consists of 28 items with the removal of 12 items in total, are presented in Table 6.

Table 6. Examination of Internal Consistency and Convergent Validity of the Survey Scale

		Factor Loading	Cronbach's Alpha	CR	AVE
Municipal Service Buildings	MSB1	0,650	0,810	0,855	0,599
	MSB2	0,709			
	MSB3	0,900			
	MSB5	0,814			
Electricity Network	EN3	0,795	0,661	0,796	0,575
	EN4	0,894			
	EN5	0,540			
Education Facilities	EF1	0,911	0,933	0,953	0,835
	EF2	0,962			
	EF3	0,823			
	EF5	0,952			
Neighborhood Parks	NP1	0,906	0,880	0,919	0,740
	NP2	0,865			
	NP3	0,726			
	NP4	0,930			

Street Network	SN1	0,717	0,862	0,893	0,631
	SN2	0,932			
	SN3	0,901			
	SN4	0,781			
	SN5	0,592			
Water and Sewerage Network	WS2	0,955	0,655	0,833	0,718
	WS5	0,723			
Health Facilities	HF1	0,884	0,728	0,850	0,657
	HF2	0,862			
	HF4	0,668			
Public Transport Network	PTN1	0,946	0,803	0,880	0,718
	PTN2	0,957			
	PTN5	0,584			

CR: Composite Reliability, AVE: Average Variance Extracted

First, when convergent validity is examined, factor loadings $\geq 0,70$ and AVE coefficients $\geq 0,50$ are required for convergent validity. If the factor loadings are between 0,40 and 0,70 and the AVE and CR coefficients are above the threshold values, the items are not removed from the scale. Since the AVE value of all service dimensions was higher than 0,5 and the factor loadings were higher than 0,40, convergent validity was ensured.

In order to enhance the reliability of the scale, it is essential to assess the α values of individual items, removing any item that reduces the overall α value upon calculation, thus improving the scale's reliability (Kılıç, 2016). For internal consistency reliability, Cronbach's alpha and CR coefficients should be $\geq 0,60$. When Cronbach's alpha and CR coefficients for internal consistency reliability were examined, the Cronbach's alpha coefficient and CR coefficient of each dimension were obtained between 0,655 and 0,953. According to these coefficients, internal consistency reliability was achieved.

As a result, a scale consisting of 28 items and 8 dimensions was developed after removing invalid items. This scale is consistent and reliable and can be considered as a new scale that can be used by researchers in future studies. The final version of the survey questions with the removed items is given in Appendix B.

When it comes to discriminant validity, the 8 dimensions in the scale should not have anything in common with each other, should not be highly correlated with each other. In other words, the dimensions should be dissociated from each other. Thus, each item under each dimension will be differentiated in such a way that they do not mean the same thing. For example, an item should not be related to both electricity network and health facilities. In other words, the item under each dimension should not be addressed under another dimension. Two different approaches have been considered in discriminant validity here. One is Fornell-Larcker and the other is Heterotrait-monotrait ratio of correlation (HTMT).

Table 7. Discriminant Validity (Fornell-Larcker)

	Municipal Service Buildings	Electricity Network	Education Facilities	Neighborhood Parks	Health Facilities	Street Network	Water and Sewerage Network	Public Transport Network
Municipal Service Buildings	0,774							
Electricity Network	0,214	0,758						
Education Facilities	0,209	0,256	0,914					
Neighborhood Parks	0,344	0,158	0,76	0,861				
Health Facilities	0,389	0,5	0,181	0,359	0,811			
Street Network	0,368	-0,179	0,439	0,525	0,103	0,794		
Water and Sewerage Network	0,063	0,506	0,649	0,395	0,204	0,191	0,847	
Public Transport Network	0,264	0,089	0,179	0,32	0,449	0,487	0,02	0,847

In the Fornell-Larcker criterion developed for discriminant validity, the square root of the AVE coefficients of the factors should be higher than the correlation coefficients between the other factors in the structure (Table 7). The values on the diagonals and shown in bold font are the AVE square root of the factors, while the other values are the correlation coefficients between the factors. For example, the

AVE square root of electricity network is 0,758. The correlation of electricity network with other dimensions should not be higher than this value. As a result of the analysis, since the AVE square root coefficients of each scale are higher than the correlation coefficients with the other scales in its row and column, discriminant validity is ensured.

Table 8. Discriminant Validity (HTMT)

	Municipal Service Buildings	Electricity Network	Education Facilities	Neighborhood Parks	Health Facilities	Street Network	Water and Sewerage Network
Electricity Network	0,243						
Education Facilities	0,213	0,452					
Neighborhood Parks	0,423	0,392	0,837				
Health Facilities	0,564	0,616	0,274	0,507			
Street Network	0,502	0,312	0,426	0,504	0,265		
Water and Sewerage Network	0,203	0,772	0,735	0,485	0,318	0,298	
Public Transport Network	0,532	0,336	0,220	0,359	0,528	0,610	0,226

Another measure developed for discriminant validity is the HTMT coefficient. The logic of the HTMT coefficient is the same as that of the correlation coefficient. Each number given in Table 8 is the HTMT coefficient between each dimension and expresses the correlation coefficient. In order to ensure discriminant validity, these HTMT coefficients should be below 0,90. This is because items that are highly correlated with each other, measure the same thing or can be used interchangeably do not need to be included in the scale and evaluated. Since all of the HTMT coefficients obtained were below 0,90, discriminant validity was ensured. Up to this point, the analyses on the validity and reliability of the scale have been presented. The final scale is a 28-item scale consisting of 8 dimensions.

After validating the scale used and making it reliable, it is now possible to use a scoring system to assess these 8 dimensions and measure the level of satisfaction of the participants based on the scoring. Table 9 shows a total of 9 ratings for each of the 8 dimensions and total satisfaction. The total satisfaction is obtained by summing the average satisfaction of each sub-dimension. The total score is used as the scoring system, with a maximum score of 5 times the number of items in each dimension. The closer the average satisfaction score is to the maximum score, the higher the level of satisfaction. Descriptive statistics of the satisfaction scores obtained from each dimension are presented in Table 9.

Table 9. Descriptive Statistics of Total and Subscale Scores of Satisfaction with Basic Urban Services Scale

Satisfaction	N	Mean	S. Deviation	Median	Min.	Max.
Street Network	42	10,69	4,82	9,00	5,00	22,00
Public Transport Network	42	9,00	3,28	9,00	3,00	14,00
Water and Sewerage Network	42	7,26	1,93	8,00	2,00	9,00
Electricity Network	42	10,57	1,98	11,00	6,00	15,00
Neighborhood Parks	42	13,00	4,24	13,00	4,00	20,00
Education Facilities	42	11,69	4,03	12,00	4,00	20,00
Health Facilities	42	9,26	2,81	9,50	3,00	14,00
Municipal Service Buildings	42	10,93	3,34	11,00	4,00	18,00
<i>Total Satisfaction</i>	<i>42</i>	<i>82,40</i>	<i>16,86</i>	<i>83,50</i>	<i>36,00</i>	<i>110,00</i>

Looking at the average satisfaction scores, it can be stated that there is an average level of satisfaction in the neighborhood in general. However, the situation is different for some services. The dimensions of Water and Sewerage Network, Electricity Network, Neighborhood Parks and Health Facilities, expressed in bold in Table 10, show a satisfaction level above 60 percent for 42 participants. This indicates that the participants are generally satisfied with these services and do not encounter too many problems. Nevertheless, this is the result for the participants in

general. The results will differ with different variables (such as age, gender, place of residence).

Table 10. Average Satisfaction Level of All Participants with Basic Urban Services

	Number of Valid and Reliable Items	Max satisfactio n points available	Average satisfactio n score received	Satisfactio n level
Street Network	5	25	10,69	42,76%
Public Transport Network	3	15	9	60,00%
Water and Sewerage Network	2	10	7,26	72,60%
Electricity Network	3	15	10,57	70,47%
Neighborhood Parks	4	20	13	65,00%
Education Facilities	4	20	11,69	58,45%
Health Facilities	3	15	9,26	61,73%
Municipal Service Buildings	4	20	10,93	54,65%

When satisfaction with basic urban services in the neighborhood was analyzed by age (Table 11), a statistically significant positive weak relationship was found between age and water and sewerage network satisfaction score ($p=0,040$). A statistically significant positive weak relationship was found between age and satisfaction with electricity network ($p=0,030$). A statistically significant positive weak relationship was found between age and satisfaction with health facilities ($p=0,002$). In other words, this shows that the higher the age of the participants, the higher their satisfaction with water and sewerage network, electricity network and health facilities. These results suggest that age may affect residents' perceptions of basic urban services and that older individuals tend to view these services more positively. On the other hand, no significant relationship was found between age and other variables ($p>0,050$).

Table 11. Examination of the Relationship Between Age and Total and Subscale Scores of Satisfaction with Basic Urban Services Scale

	Age	
	r	p
Street Network Satisfaction	-0,262**	0,094
Public Transport Network Satisfaction	-0,178**	0,258
Water and Sewerage Network Satisfaction	0,318**	0,040
Electricity Network Satisfaction	0,335*	0,030
Neighborhood Parks Satisfaction	0,050**	0,754
Education Facilities Satisfaction	0,127**	0,421
Health Facilities Satisfaction	0,460**	0,002
Municipal Service Buildings Satisfaction	-0,106*	0,505
<i>Total Satisfaction</i>	<i>0,112*</i>	<i>0,480</i>

*Pearson correlation coefficient, **Spearman's rho correlation coefficient

When it comes to the comparison according to categorical variables such as gender, two different tests were applied here. One is the Independent two-sample t test statistic expressed as "t" and the other is the Mann-Whitney U test statistic expressed as "U". The purpose of both is to compare two groups that will have something in common. In other words, t test and Mann-Whitney U test are used when two groups are compared. The feature that distinguishes the two is the normality of the data. If the data is normally distributed, that is, if it shows a symmetrical structure, if "mean=median=mod", the t test is applied to compare two groups. This test compares the mean value. The Mann-Whitney U test is used when the data are not normally distributed according to the two groups. The value compared in the Mann-Whitney U test is the median value. When the data are not normally distributed, the median value represents the mean value. Whether there is a difference between two groups is decided according to "p" values. If the p value obtained is less than 0,05, it can be said that the scores of this scale differ according to the compared group, according to gender.

Table 12. Comparison of Scores by Gender

Satisfaction	Gender				Test Statistic	P
	Male		Female			
	Mean±s. deviation	Median (min. - max.)	Mean±s. deviation	Median (min. - max.)		
Street Network	12,88±5,01	12,50 (6,00 - 22,00)	7,78±2,51	8,00 (5,00 - 14,00)	t=4,316	<0,001
Public Transport Network	10,04±2,63	11,50 (5,00 - 14,00)	7,61±3,60	8,00 (3,00 - 14,00)	U=131,5	0,029
Water and Sewerage Network	8,21±0,88	8,00 (5,00 - 9,00)	6,00±2,22	6,50 (2,00 - 9,00)	U=78	<0,00
Electricity Network	10,96±1,73	11,00 (8,00 - 15,00)	10,06±2,21	10,50 (6,00 - 14,00)	t=1,486	0,145
Neigh. Parks	14,29±3,98	14,50 (6,00 - 20,00)	11,28±4,06	12,50 (4,00 - 18,00)	U=103	0,004
Education Facilities	12,79±3,34	12,00 (7,00 - 20,00)	10,22±4,48	11,50 (4,00 - 19,00)	U=131,5	0,025
Health Facilities	10,00±2,25	10,50 (6,00 - 14,00)	8,28±3,23	7,00 (3,00 - 13,00)	U=146,5	0,073
Municipal Service Buildings	12,67±2,24	13,50 (8,00 - 18,00)	8,61±3,18	8,00 (4,00 - 16,00)	t=4,851	<0,001
Total	91,83±11,51	93,50 (69,00 - 110,00)	69,83±14,61	71,50 (36,00 - 91,00)	t=5,46	<0,001

t: Independent two sample t test statistic, U: Mann-Whitney U test statistic

Looking at the data in Table 12, there is a difference between the mean scores of street network satisfaction according to gender ($p < 0,001$). While the mean score of men is 12,88, the mean score of women is 7,78. It is seen that women are more dissatisfied with street infrastructure. Some of the answers given to open-ended questions in the survey support this situation. For example, the responses of two of the participants to the question are given below:

“Dışarı çıktığımda bebek arabası ile yürümekte sıkıntı yaşıyorum.”

(Female, 30 years old)

“Arabalar kaldırım üzerlerine park ettiği için rahatça yürüyemiyoruz.”

(Female, 41 years old)

There is a difference between the median scores of satisfaction with public transportation network by gender ($p=0,029$). While the median score of men was 11,50, the median score of women was 8,00. There is a difference between water and sewerage satisfaction score medians by gender ($p<0,001$). While the median score of men was 8,00, the median score of women was 6,50. The fact that women are more dissatisfied with water supply can be supported by the fact that they stated in their responses to the surveys that they cannot use water efficiently, especially when doing kitchen work. There is a difference between the median scores of satisfaction with neighborhood parks by gender ($p=0,004$). While the median score of men was 14,50, the median score of women was 12,50. Female participants stated that they do not find neighborhood parks safe and that they cannot use the parks especially in the evening hours. This situation supports the fact that female participants are more dissatisfied with neighborhood parks than male participants. The inability of female users to use the parks due to security concerns reveals problems of spatial justice. There is a difference between the median scores of satisfaction with educational facilities according to gender ($p=0,025$). While the median score of men was 12,00, the median score of women was 11,50.

There is a difference between the mean scores of satisfaction with municipal service buildings according to gender ($p<0,001$). While the mean score of men was 12,67, the mean score of women was 8,61. Female participants stated that the municipal service buildings are inadequate and only for the use of men. In this case, it can be interpreted that there is no equal and fair use of municipal service buildings. There is no difference between the mean and median scores for electricity infrastructure ($p=0,145$) and health facilities ($p=0,073$) according to gender. In this case, it can be said that the satisfaction rates of male and female participants with electricity infrastructure and health facilities are close to each other.

When total satisfaction is analyzed, there is a difference between the mean scores of total satisfaction according to gender ($p<0,001$). While the mean score of men was

91,83, the mean score of women was 69,83. In general, the low satisfaction rate of women in basic urban services highlights the injustices experienced by women in the provision and utilization of services.

Table 13. Comparison of Scores According to Employment Status

Satisfaction	Employment Status				Test Statistic	P
	Employee		Non-employee			
	Mean±s. deviation	Median (min. - max.)	Mean±s. deviation	Median (min. - max.)		
Street Network	12,60±4,60	12,00 (8,00 - 22,00)	10,09±4,79	8,50 (5,00 - 22,00)	U=101,5	0,084
Public Transport Network	10,80±1,55	12,00 (9,00 - 12,00)	8,44±3,48	9,00 (3,00 - 14,00)	U=98	0,069
Water and Sewerage Network	8,30±0,67	8,00 (7,00 - 9,00)	6,94±2,08	8,00 (2,00 - 9,00)	U=98	0,069
Electricity Network	11,60±1,58	11,00 (9,00 - 15,00)	10,25±2,00	10,50 (6,00 - 14,00)	t=1,948	0,058
Neigh. Parks	13,90±4,84	14,00 (6,00 - 20,00)	12,72±4,08	13,00 (4,00 - 20,00)	U=127,5	0,343
Education Facilities	12,90±3,98	12,00 (8,00 - 20,00)	11,31±4,03	12,00 (4,00 - 20,00)	U=129	0,374
Health Facilities	9,30±2,11	9,50 (6,00 - 13,00)	9,25±3,03	9,50 (3,00 - 14,00)	U=156	0,919
Municipal Service Buildings	12,40±3,06	12,50 (8,00 - 18,00)	10,47±3,33	10,50 (4,00 - 16,00)	t=1,629	0,111
Total	91,80±13,59	93,50 (71,00 - 110,00)	79,47±16,88	82,00 (36,00 - 107,00)	t=2,101	0,042

t: Independent two sample t test statistic, U: Mann-Whitney U test statistic

When a comparison is made according to the employment status of the participants (Table 13), there is no difference in satisfaction between employees and non-employees on the basis of basic urban services. However, when total satisfaction is analyzed, there is a difference between the mean scores of total satisfaction

according to employment status ($p=0,042$). While the mean score of employees was 91,80, the mean score of non-employees was 79,47. It can be concluded that non-employed participants are generally more dissatisfied with basic urban services.

At the beginning of the survey, participants were asked about their age, gender, education level, employment status and place of residence in order to understand the general demographic structure. Up to this point, it has been analyzed whether age, gender, education and employment status affect the satisfaction with the basic urban services provided within Mutlu Neighborhood. Finally, place of residence is important for the objective of this thesis. In order to understand how living in a planned or unplanned area affects the provision of basic urban services and their accessibility by residents, satisfaction scores were compared by place of residence (Table 14).

Table 14. Comparison of Scores by Place of Residence

Satisfaction	Place of Residence				Test Statistic	P
	Planned Area		Unplanned Area			
	Mean±s. deviation	Median (min. - max.)	Mean±s. deviation	Median (min. - max.)		
Street Network	12,36±5,09	11,00 (6,00 - 22,00)	8,85±3,82	8,00 (5,00 - 17,00)	U=118	0,010
Public Transport Network	9,64±3,72	11,50 (3,00 - 14,00)	8,30±2,62	9,00 (3,00 - 12,00)	U=154,5	0,094
Water and Sewerage Network	6,73±2,16	8,00 (2,00 - 9,00)	7,85±1,46	8,00 (3,00 - 9,00)	U=151	0,073
Electricity Network	9,36±1,62	9,50 (6,00 - 12,00)	11,90±1,41	12,00 (9,00 - 15,00)	U=46,5	<0,001
Neigh. Parks	13,18±4,73	14,00 (4,00 - 19,00)	12,80±3,75	13,00 (6,00 - 20,00)	U=189	0,431

Education Facilities	11,41±5,06	11,50 (4,00 - 20,00)	12,00±2,55	12,00 (6,00 - 17,00)	U=172	0,208
Health Facilities	8,41±2,84	7,00 (3,00 - 14,00)	10,20±2,53	12,00 (6,00 - 13,00)	U=137	0,034
Municipal Service Buildings	11,05±3,27	11,00 (4,00 - 18,00)	10,80±3,49	11,00 (4,00 - 15,00)	U=214	0,879
<i>Total</i>	<i>82,14±19,79</i>	<i>85,50 (36,00 - 107,00)</i>	<i>82,70±13,44</i>	<i>81,50 (58,00 - 110,00)</i>	<i>t=-0,107</i>	<i>0,915</i>

According to place of residence, only street network, electricity network and health facilities differed in terms of satisfaction. In the street network item ($p=0.01$), the median score of those living in the planned area was 11.00, while the median score of those not living in the planned area was 8.00. This shows that the satisfaction of the participants living in the planned area is higher. The lack of sidewalks in unplanned areas can be seen as the most important factor in this situation. The fact that those living in planned areas have a higher level of satisfaction with street network may indicate that spatial justice has not been realized. This situation indicates that individuals living in unplanned areas do not have equal access to basic infrastructure services and thus experience injustice in their neighborhood. The absence of basic infrastructure elements such as lack of sidewalks in unplanned areas indicates that those living in these areas are deprived of the right to live in a safe and accessible environment.

In the item on electricity network ($p<0,001$), the median score of those living in planned areas was 9,50, while the median score of those living in unplanned areas was 12,00. This shows that those living in unplanned areas are more satisfied with the electricity infrastructure. This can be considered as a finding contrary to the hypothesis of the thesis put forward at the beginning of the study. Regarding health facilities ($p=0,034$), the median score of those living in planned areas was 7,00, while the median score of those living in unplanned areas was 12,00. This again shows

that, contrary to the hypothesis of the thesis, those living in unplanned areas are more satisfied with health facilities. In the basic urban services other than these three services, it is observed that living in planned or unplanned areas does not affect satisfaction.

Up to this point, the data collected has been meticulously analyzed and the findings are presented in a comprehensive manner. The data analysis process has been carried out in detail using various methodologies and techniques and the results have been carefully evaluated. The findings are carefully organized and presented in a way that is understandable to the reader, and thus consistent with the objective and main hypothesis of the research.

The data collection process and the analysis of the collected data is one of the fundamental steps of the research and its proper execution directly affects the reliability of the results. For this reason, the collected data were first meticulously analyzed and then digitized. Statistical analysis tools such as SPSS were used to analyze the data and test the reliability of the scale questions. Reliability analyses were conducted specifically for each urban service and as a result of these analyses, it was determined that some of the questions prepared for urban services did not fit the scale.

In particular, the questions used in the research on urban services such as "People living in slums cannot benefit from basic urban services sufficiently." were found to fail the reliability and validity analysis because they contained a negative statement compared to other questions, and these items were removed from the scale.

As a result, these analyses to understand the origin of the scale problem increased the reliability of the research and provided a more accurate interpretation of the results. This process helped the researchers to overcome the difficulties encountered in the scale development and analysis processes and to create a better methodology for future studies.

4.1.2 Findings and Interpretation of the Analyses

In this section, the results of the thesis study will be presented in detail. The analyses will reveal meaningful patterns of the data obtained and provide answers to the research questions. The findings will be evaluated in the context of achieving the overall aim of the research and contributing to the topic.

As mentioned in Chapter 1, the main aim of this thesis study is “*to assess indicators of spatial justice in planned and unplanned areas in order to compare and evaluate the allocation and accessibility of basic urban services*”. In line with this aim, a comprehensive literature review on spatial justice, basic urban services and the slum phenomenon has been conducted up to this stage of the thesis. Field studies and surveys were conducted in line with the indicators identified in the literature, and the data obtained have been analyzed diligently. Mutlu Neighborhood in Mamak was selected as an appropriate case study to achieve the main aim of the thesis. The fieldwork and surveys conducted in this neighborhood constituted an important step in providing a comprehensive assessment of the allocation and accessibility of basic urban services.

In this process, various dimensions and criteria of the concept of spatial justice were examined, and the importance of equitable distribution and accessibility of basic urban services was emphasized. In addition, field studies were conducted to identify the differences between the quality and accessibility of services in slum/unplanned areas and those in planned areas, and the current situation was analyzed. Surveys were used to assess residents' experiences, satisfaction levels and access to basic urban services. This data constituted an important source for understanding the level of realization of spatial justice and identifying existing injustices. In this section, the analysis presented in Section 3.2.2 will be examined through a spatial justice lens to gain insights into the distribution and accessibility of basic urban services.

First of all, although the main purpose of the thesis is to compare the situation in planned and unplanned areas, a comparison was also made on the basis of other socio-demographic characteristics collected in the surveys. From these comparisons, it has been revealed that there are situations that may affect spatial justice in the neighborhood. Table 15 shows each basic urban service and the variables that yielded meaningful results as a result of the analyses.

Table 15. Summary of Resident Satisfaction by Each Basic Urban Service

Basic Urban Services	Meaningful Variables	Description
Street Network	Gender	Female participants are more dissatisfied with the street network.
	Place of residence	Residents in unplanned areas are more dissatisfied with the street network than those in planned areas.
Public Transport Network	Gender	Female participants are more dissatisfied with the public transportation network.
Water and Sewerage Network	Age	As the age of the participants increases, their satisfaction with the water and sewerage infrastructure services provided in the neighborhood increases.
	Gender	Female participants are more dissatisfied with the water and sewerage network.
Electricity Network	Age	As the age of the participants increases, satisfaction with the electricity network in the neighborhood increases.
	Place of residence	Residents in planned areas are more dissatisfied with the electricity network than those in unplanned areas.
Neighborhood Parks	Gender	Female participants are more dissatisfied with the neighborhood parks.
Education Facilities	Gender	Female participants are more dissatisfied with the education facilities.

Health Facilities	Age	As the age of the participants increases, their satisfaction with the health services provided in the neighborhood increases.
	Place of residence	Residents in planned areas are more dissatisfied with the health facilities than those in unplanned areas.
Municipal Service Buildings	Gender	Female participants are more dissatisfied with the municipal service buildings.
Total	Gender	Female participants are more dissatisfied than male participants in terms of overall basic urban services.
	Employment Status	Non-employed participants are more dissatisfied than male participants in terms of overall basic urban services.

For the detailed statistical data, please see the related tables in the analysis section. Each basic urban service will be considered separately and the results summarized in Table 15 will be discussed and interpreted in detail. Considering the **street network**, gender and place of residence were found to affect the satisfaction level of the participants. According to gender, female participants are more dissatisfied with the street network. From a spatial justice perspective, this difference can be an important sign of inequality. Street infrastructure has a significant impact on the quality of life and overall health of a neighborhood or area. Women's low satisfaction with street infrastructure may indicate the existence of spatial injustices in this area. Women generally spend more time on the streets, especially when performing tasks such as childcare, household chores and daily shopping. In open-ended questions, some female participants mentioned the difficulty of using baby carriages on the sidewalk. Thus, the accessibility and safety of streets may be of greater importance for women. If street infrastructure is inadequate or unsafe, women might be more affected.

According to place of residence, residents in unplanned areas are more dissatisfied with the street network than those in planned areas. Individuals living in unplanned areas may be in a more vulnerable position than those living in planned areas. This

is related to the injustice and disadvantages that arise when there is unequal access to infrastructure services. This finding supports the hypothesis because individuals living in unplanned areas are less satisfied with street infrastructure than those living in planned areas, suggesting that basic infrastructure services are inadequate or lacking in these areas. In this context, this finding, which supports the hypothesis, emphasizes the inadequacy of basic urban services in unplanned areas and points to the existence of spatial injustices in these areas. Therefore, urban planning and service provision policies need to be reviewed and more effective strategies need to be developed to meet the needs of those living in unplanned areas. This is important for ensuring spatial justice and reducing inequalities in urban areas.

Looking at the **public transportation network**, only gender factor has an impact on participants' satisfaction. Female participants are more dissatisfied with the public transportation network. This situation can be evaluated from several perspectives when considered from spatial justice perspective. Ensuring safety and comfort in public transportation has a significant impact on users' satisfaction. Women may generally be more sensitive to safety on public transportation. If public transportation services are not safe and comfortable, women may be more dissatisfied with them. Furthermore, the frequency and accessibility of public transportation can be an important factor affecting women's daily lives. This highlights the need for more frequent and regular public transport services and contributes to spatial justice by supporting women's mobility more effectively.

For **water and sewerage network**, age and gender were found to affect the responses and satisfaction levels of the participants. The higher the age of the participants, the higher their level of satisfaction with the water and sewerage infrastructure. There may be different reasons for this situation. It may suggest that older individuals may have a greater appreciation for higher reliability water and sewerage systems. Also, as older individuals generally have a longer life experience, they may be more satisfied with the service they are currently receiving due to the poor infrastructure they have experienced up to this age.

In terms of gender, female participants are more dissatisfied with the water and sewerage network. Since women are often responsible for many aspects of daily life, such as housework and family care, they may be more sensitive to the impact of water and sewerage services on quality of life and daily routines at home. Furthermore, perceptions of women's role and position in society may influence women's satisfaction with water and sanitation services. For example, in some cultures, women's greater association with housework and childcare may be the reason behind dissatisfaction with water and sanitation services. Women, who have a greater need for adequate water supply, especially in their daily work, may be more likely to feel these problems and therefore less satisfied if there are problems with water or sanitation services.

Looking at the **electricity network** provided in the neighborhood, age of the participants and place of residence were found to affect the satisfaction results. As the age of the participants increases, satisfaction with the electricity network in the neighborhood increases. As in the case of water and sewerage network, this can be associated with the fact that older people appreciate the services provided more or have lower expectations.

When the electricity network is analyzed according to the place of residence, the results of the comparison show that, contrary to expectations, those living in unplanned areas have higher satisfaction levels, not those living in planned areas. This unexpected difference in satisfaction with the electricity network can be seen as a finding contrary to the hypothesis put forward at the beginning of the study.

The following factors can be considered to interpret this situation. Given different priorities and expectations, the electricity network is a critical service in people's daily lives. People living in unplanned areas may expect less, considering that their access to these services is limited. Therefore, they may be more satisfied with the current situation. In addition, due to the influence of local conditions, the electricity network service may have been improved through the efforts of institutions. In unplanned areas, factors such as local initiatives undertaken by local communities or

external support may have improved the quality of these services and influenced satisfaction.

Moreover, factors such as the methodology of the research or sample selection may also affect this result. It may be that the residents of unplanned areas in the sample may have similar views as they are a more homogeneous group than the residents of planned areas in the sample. Taking these results into account may require a deeper analysis in terms of spatial justice and resource allocation. This unexpected difference in satisfaction with electricity network should be taken into consideration in planning processes and infrastructure improvement efforts.

As for the **neighborhood parks**, it was observed that satisfaction differed only in the gender factor. Female participants are more dissatisfied with the neighborhood parks. When this finding is evaluated in terms of access and usability, if the parks are not suitable for women's needs or if they face difficulties in accessing them, this may lead to women's dissatisfaction. For example, factors such as lack of safe and accessible routes to parks or insufficient lighting in parks may lead to women's lower satisfaction with parks. In addition, women often care about safety and comfort in parks. If parks are unsafe or poorly maintained, women may be less likely to want to spend time in these spaces and may therefore experience dissatisfaction.

In addition, in the answers given to the surveys, female participants stated that the parks are unsafe and that they are unable to use the parks, especially in the evening hours. In this context, the gender differentiation in satisfaction with neighborhood parks is an important indicator in terms of ensuring spatial justice. Planning parks in accordance with women's needs and preferences, and ensuring safety and comfort are necessary to increase spatial justice and service provision.

For **education facilities**, it was observed that satisfaction differed only in the gender factor. Female participants are more dissatisfied with the education facilities. During the fieldwork, it was found that women are generally the ones who take care of issues such as children's education and transportation to and from school in families with children. Women generally take more responsibility for children's education and

their transportation to school. If education facilities are not accessible to women or if there are accessibility difficulties, this may lead to women being more dissatisfied with education facilities. Women may be more sensitive to children's education and expect higher quality services from education facilities. If education facilities are inadequate or lack diversity, women may be more dissatisfied. It is important to consider factors such as accessibility, quality and gender sensitivity of education facilities to ensure spatial justice and equal access to education services for all.

Looking at the **health facilities** provided in the neighborhood, it is revealed that the age and place of residence of the participants affect the satisfaction results. As the age of the participants increases, their satisfaction with the health services provided in the neighborhood increases. It may make sense that older participants' greater satisfaction with the health services may be associated with the special needs associated with old age and increased dependency on health services. However, the fact that some participants expressed dissatisfaction in the answers to the open-ended questions indicates that the age-related increase in satisfaction may not be inclusive of all elderly individuals. There is a health center in the neighborhood. According to the answers given to the open-ended questions in the surveys, some of the participants stated that they are very satisfied, while others stated that they have difficulty even getting an appointment and that this situation is related to the doctor they are registered with. For this reason, the fact that older individuals are more satisfied with health services may not be a meaningful result.

Likewise, according to place of residence, as in the case of the electricity network, contrary to the hypothesis of the thesis, it is observed that those living in unplanned areas have higher satisfaction levels. However, this may not be a significant result as it may be related to the doctor assignment at the health center. Nevertheless, from a spatial justice perspective, the higher satisfaction levels of those living in unplanned areas may suggest that health services in these areas are provided more efficiently or that other factors (such as social support or balanced distribution of resources) come into play. However, this is not sufficient to conclude that there is injustice and inequality in health services provided in planned and unplanned areas.

When it comes to the **municipal service buildings**, it is observed that only the gender factor creates a significant difference in the satisfaction level of the participants. Female participants are more dissatisfied with the municipal service buildings. In the responses to the open-ended questions in the surveys, it is stated that a new family life center has been built but has not yet been put into service. Regarding the municipal service building that is currently open for service, female participants stated in their answers to open-ended questions that it is not suitable for all users, that there are more male users and therefore they cannot benefit from it. Based on all these, it is clear that women do not feel comfortable and safe using the municipal service buildings, which are supposed to serve the general public. In the context of spatial justice, these services should be offered equally to all users. In this case, it can be concluded that municipal service buildings contribute negatively to the problem of spatial justice in the neighborhood.

Finally, when the total of the aforementioned **eight basic urban services** is analyzed, it is observed that women and non-employed participants are generally more dissatisfied with urban services. Given that women and non-employed participants are generally more dissatisfied with urban services, factors such as gender and labor market participation seem to influence these results. Women often take on more domestic and care responsibilities within the family, while those who are non-employed may experience limitations in accessing economic resources. This may result in differences in the use and satisfaction with urban services. Women, in particular, may take on more responsibility for childcare, housework and the health needs of family members due to their gender roles. Therefore, the difficulties and injustices they face in the use of urban services might contribute to women's dissatisfaction.

With regard to non-employed participants, although no specific differences in the provision and access to urban services were found, the economic and social status of individuals within this group may affect their access to and utilization of urban services. Therefore, further understanding and analysis may be required on the overall dissatisfaction of the non-employed. Overall, linking urban services to

gender and labor market roles and dynamics is important for ensuring spatial justice and more inclusive service provision. In this context, factors such as gender and economic status need to be taken into account in urban planning and policy making.



CHAPTER 5

DISCUSSION AND CONCLUSION

In this chapter, gaps, research limitations and research needs of the subject is provided. After, the results and findings of the analyses will be presented. Although a specific topic is analyzed within the scope of the research, every research has certain limitations and shortcomings. This chapter is designed to identify these limitations and gaps and provide guidance for future researchers. While addressing the research gaps of the topic, knowledge gaps and controversies in the existing literature will be emphasized, and how these gaps can be filled. In addition, methodological and bibliographical limitations encountered during the research will be discussed in detail. In addition, based on the results and analyses of the study, recommendations for future research will be presented. Based on the findings of the current research, these recommendations will aim to identify areas for further research and to analyze the topic in more depth.

Likewise, the results and findings of the analyses will be presented in this section. The results obtained by analyzing the research data will explain the current status of the subject and the findings. The results of the analyses will be evaluated and interpreted according to the main questions and hypothesis of the research. The presentation of the results of the analysis will include a detailed review of the main questions and hypothesis of the research and will aim to explain the meaning of the findings in depth. The findings will help to assess the degree of achievement of the main objective of the research and the accuracy of the assumptions. In addition, based on the results and analyses of the study, recommendations for future research will be presented. Based on the findings of the current study, these recommendations will aim to identify areas for further research and a more in-depth examination of the topic.

5.1.1 Gaps, Research Limitations and Research Needs

In this section, gaps and contradictions in the literature are presented, and some recommendations are provided for further studies. In general, it can be interpreted that there are studies on the accessibility of services with a focus on only one or two services. This deficiency can be regarded as an essential gap. While many of the existing studies in the literature focus on specific types of services, a comprehensive perspective on overall accessibility and service provision are not provided. This may lead to an incomplete or limited understanding of the factors affecting service access. Therefore, expanding future research to include various types of services and providing a more comprehensive perspective would be a critical step to fill this important gap in the literature.

Another issue is the issue of equality and spatial justice, which is discussed in the literature and practice. There is a detailed and comprehensive study area in the literature on this subject. However, when looking at today's cities, it is seen that there is not enough effort and failure in terms of implementation. Equity, fairness, and justice are notions that have been extensively debated across several academic areas; yet, they represent an uncharted realm in terms of spatial justice and the deployment of decision support systems (Feitosa et al., 2021).

Another problem or gap is the scale at which studies on accessibility and spatial justice are addressed. Much of the previous research on spatial justice, access, and provision of services concentrates on large-scale spatial units such as cities or districts, but there is rarely an examination of justice, equity, and accessibility at the neighborhood scale (Tsou et al., 2005). However, various issues can be addressed at the neighborhood scale, as examined in this thesis. Socio-economic differences and polarizations affecting accessibility within the neighborhood should also be considered within the context of spatial justice. Despite many years of research, the extent to which impoverished neighborhoods truly receive inadequate public services, as well as the mechanisms that contribute to this, remain unclear, indicating the need for more research (Hastings, 2009). This gap may be due to the fact that

local governments and planners usually focus on policy development at the provincial and district levels. However, social, economic, and environmental factors at the neighborhood level are known to have a significant impact on individuals' experiences of accessibility and the achievement of spatial justice. Hence, insufficient analysis at the neighborhood scale will limit opportunities to fully understand actual conditions and provide better access to local services.

The data component, which is one of the most important parts of scientific research, also has an important place in this study. As with all other social issues, accessibility measurements also depend on the quality of the data input provided (Pacione, 1989). At this point, accessing sufficient and high-quality data can be considered as one of the biggest challenges of this study. Lineberry and Welch (1974) identified three problems encountered in attempts to collect systematic evidence on the distribution of urban public services: (i) the problem of measuring service output in the context of urban distribution research, (ii) the problem of choosing a standard to be used in the evaluation of service models, (iii) the difficulty of obtaining "hard data" on the distribution of public services. Also in this study, problems were encountered during the data collection and fieldwork process. A limited number of participants volunteered to fill out the questionnaires, and this limited number of participants resulted in the inability to obtain a comprehensive data set. These difficulties led to limited generalizability and reliability of the results. Moreover, unexpected obstacles were encountered during the fieldwork, further complicating the data collection process.

However, in future research, different data collection methods and strategies could be considered to ensure a more balanced gender representation. For example, special meetings with women could be organized or more flexible time frames could be set to encourage greater participation of women. In addition, different communication channels can be used to ensure greater visibility of women in the neighborhood and measures can be taken to encourage participation. In this way, the data can be more comprehensive and representative.

Based on the gaps in this literature and the difficulties encountered during the research process, some recommendations for future research can be offered. It is important for researchers to move beyond studies that often focus on specific types of services to offer a more comprehensive view of overall accessibility and service provision. This encourages future research that covers various types of services and offers a more comprehensive perspective. By focusing on a single urban service, it is unlikely that a comprehensive and generalized study of the issues can be undertaken.

Furthermore, more efforts should be made to address issues of equity and spatial justice in practice as well as in the literature. Researchers should focus on examining the challenges and gaps in the implementation of spatial justice and decision support systems. In this way, research can contribute more to the literature by revealing the challenges and existing problems and providing guidance to decision-makers.

Another issue is the scale at which studies are conducted. Research should also be conducted at the neighborhood scale instead of large-scale spatial units. Neighborhood-scale research provides an opportunity to better understand individuals' experiences of accessibility and spatial justice. While there are advantages to working at a large scale, there is a need for more localized and focused research and solutions. However, it should not be forgotten that each local unit has its own unique characteristics.

To overcome the challenges of data collection, researchers should develop various strategies. These strategies should aim to strengthen the data collection process by increasing the number of participants and obtaining a more comprehensive data set. To this end, it may first be recommended to use different data collection methods, such as online surveys, telephone interviews, focus groups, and face-to-face interviews, in addition to traditional surveys. These methods can provide access to different groups of participants and help to obtain a wider range of data. In addition, in future studies, the place of residence of the participants can be taken on a point-

by-point basis to obtain more point-based and spatial data. Thus, problems can be addressed at a lower scale rather than on an area basis.

As a result, in future research, more comprehensive, localized, and data-driven approaches can be adopted in line with these recommendations, contributing to better understanding and solving important issues such as spatial justice, accessibility, and service provision. In this way, more effective policies and strategies can be developed both in academia and in practice, contributing to the welfare of society.

5.1.2 Summary and Conclusion

In contemporary urban environments, especially in developing countries, there is an increasing requirement for spatial justice in urban services, driven by the ongoing expansion of population and urbanization (Karamatolah et al., 2013). However, in the urban context of today's cities, existing failures in the provision of services, in particular, contradict the concept of spatial justice and constitute one of the most fundamental problems in cities. In addition to this, the majority (60-80%) of urban slum dwellers in developing countries live in informal settlements characterized by inadequate sanitation and hygiene conditions, overcrowding and poor housing conditions, and inadequate public services (United Nations, 2008; Maseland & Kayani, 2010). With the burden of urbanization, slums and inadequate service provision, injustices in cities have started to escalate.

This study aims to identify these burdens, as well as inequities and existing problems in the provision, quality and accessibility of services. With a descriptive-analytical methodology, a survey on basic urban services was prepared, a statistical interpretation of the survey data has been made, and results are shared. A public survey serves as a supportive tool, offering precious insights into the needs, preferences, and obstacles present within various societal domains (Kosova et al., 2023). In this thesis, the injustices in service provision are tried to be revealed by learning the experience and perception of the neighborhood residents in the basic

urban services provided. The results obtained by analyzing the responses to the surveys are interpreted from a spatial justice perspective.

Indisputably, one of the most important indicators of spatial justice in a given area is the uniform and equitable provision of services (Mohammadi Dehcheshmeh, 2017). In this context, looking at the first research question and sub-question (see Section 1.3), there are 8 indicators identified and these indicators have been focused on throughout the research (Figure 5). Regarding the second research question and its sub-question, a new scale was created after the reliability and validity tests of the survey study. This means that a specific issue or variable that has not been studied or measured before is examined. This contributes to filling the gaps in the literature. The development and use of new scales provide researchers with a broader perspective and creates a baseline that can be used in future studies.

According to the analyses and findings of the study conducted in Mutlu Neighborhood, it was concluded that whether a neighborhood is planned or unplanned does not have a significant impact on access to quality and qualified services. As a result of the findings, out of the 8 indicators (Street Network, Public Transport Network, Water and Sewerage Network, Electricity Network, Neighborhood Parks, Education Facilities, Health Facilities, Municipal Service Buildings), only 3 of them (Street Network, Electricity Network, Health Facilities) created a difference for those living in planned and unplanned areas. And two of them (Electricity Network, Health Facilities) were more dissatisfying for those living in planned areas, which is contrary to the hypothesis of the study (Figure 16).



Figure 16. The indicators created a difference for those living in planned and unplanned areas (Prepared by the author)

Two factors may have positively influenced satisfaction with electricity infrastructure in slums/unplanned areas: First, the government's remedial and key role in policy formulation, funding, and monitoring electrification programs; and second, the involvement of civil society organizations and the community in government initiatives and the impact of their collaboration (Devkar et al., 2019). It is explained in Section 4.2 that results for health facilities cannot be interpreted in a meaningful way.

Despite these results, which are contrary to the research questions and hypothesis of the thesis, significant results have emerged, especially when analyzed with the gender variable. According to the answers given by female participants, the fact that they are dissatisfied with and unable to benefit from many basic urban services reveals another dimension of spatial justice, which shows that it cannot be associated only with service accessibility and the slum phenomenon, and that gender equality is also important, which means "availing similar opportunities to both women and men" (UN-Habitat, 2013).

Regarding with the spatial justice issues, urban planning is a crucial part of all of these discussions throughout the thesis. One of the primary objectives in urban planning is to attain spatial justice through the equitable distribution of urban services (Mohamadi et al., 2014). Urban service distribution is important because urban life cannot exist without basic services like waste management, transportation, sanitation, water supply, police and fire protection, and parks; on the other hand, public amenities like street lighting, paved streets, parks, and libraries improve the quality of life and prosperity of urban residents (Lineberry & Welch, 1974). Urban planning discipline has a critical role on quality of life of residents living in cities.

When the issues described in the thesis taken into consideration, it is apparent that urban planners have an indispensable part to play in dealing with these issues. Urban scholars began talking publicly about justice around 1990 (Fainstein, 2013), and many studies have been conducted on spatial justice in the distribution of urban services. It is planners who will contribute to making urban life fairer and more sustainable by developing strategies on issues such as improving the current situation in an urban area, addressing disadvantaged areas first in order to ensure equality, and increasing physical, social and economic access of city residents.

While urban planners have an imperative role to play in addressing spatial injustices and improving urban quality of life, it is critical to recognize that their efforts need to be underpinned by comprehensive policy frameworks and strong community engagement. Effective urban governance mechanisms that involve the decision-making processes for planning, managing, financing, and delivering a variety of public and private services in cities, as well as the interactions among governments, institutions, organizations, and civic groups involved in providing and using these services (Roberts, 2023) are essential for sustainable urban development. Furthermore, integrating participatory approaches into urban planning processes ensures that the diverse needs and perspectives of urban residents, particularly marginalized groups, are adequately represented and addressed.

In concluding, this thesis highlights the multifaceted nature of spatial justice in urban settings and emphasizes the linkages between service provision, socio-economic inequalities and gender equality. It contributes to the ongoing discourse on urban planning and governance by shedding light on the challenges and complexities inherent in achieving spatial justice. For the future, the concerted efforts of urban planners, policy makers and stakeholders are needed to develop inclusive and equitable strategies that prioritize the well-being of all urban residents and promote resilient, thriving cities for succeeding generations.



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APPENDICES

A. Survey Form used in the Field Study

Anket: Mutlu Mahallesi'nde Temel Kentsel Hizmetlere Erişim ve Adalet Algısı

Sayın Katılımcı,

Bu anketi, Orta Doğu Teknik Üniversitesi Şehir Planlama dalında yürüttüğüm “Planlı ve Plansız Alanlarda Temel Kentsel Hizmetlere Erişimin Mekansal Adalet Perspektifinden Analizi: Mekansal Adaletin Haritalanması, Ankara, Mamak, Mutlu Mahallesi Örneği” başlıklı yüksek lisans tez çalışmamın bir parçası olarak gerçekleştiriyorum.

Çalışmanın odak noktası, Ankara'nın Mamak ilçesinde bulunan Mutlu Mahallesi'nde temel kentsel hizmetlere erişim ve adalet konularını mekansal adalet perspektifinden incelemektir. Bu anket, Mutlu Mahallesi'ndeki yerel halkın temel kentsel hizmetlere erişim deneyimlerini ve adalet algılarını anlamak için tasarlanmıştır. Elde edilen veriler, araştırmanın genel sonuçlarına katkı sağlayacak ve mevcut durumun ortaya konulmasında önemli bir adım olacaktır.

Anketi doldururken hiçbir kişisel bilgiye ihtiyaç duyulmamaktadır ve cevaplarınız tamamen anonim olarak ele alınacaktır. Katılımınız sadece araştırmanın doğruluğunu ve kapsamlılığını artırmak amacıyla kullanılacaktır. Herhangi bir kişisel bilgi paylaşmanız gerekmemektedir. Anketimizi doldururken rahat olabilir ve düşüncelerinizi açıkça ifade edebilirsiniz.

Genel Sorular

Yaşınız:

Cinsiyetiniz:

Engel durumunuz (varsa):

Eğitim Durumu:

Çalışma Durumu (çalışıyorsa mesleği):

Oturduğunuz yer (gecekondu alanı/planlı alan):

Kentsel Servislere Yönelik Sorular

Lütfen aşağıda belirtilen her bir kentsel servis türüne yönelik düşüncelerinizi belirtmek için 1'den 5'e kadar olan ölçekteki seçeneklerden birini seçiniz ve en sondaki soruları cevaplayınız.

Sokak Altyapısı (kaldırım)

1. Bölgenizdeki kaldırımlar, yaya trafiği için uygun bir şekilde tasarlanmış ve düzenlenmiştir.

1. Kesinlikle katılmıyorum.

2. Katılmıyorum.

3. Kararsızım.

4. Katılıyorum.

5. Kesinlikle katılıyorum.

☐☐☐☐☐

2. Kaldırımların genişliği, yürüyüş yapan insanların rahat ve güvenli bir şekilde hareket etmelerini sağlayacak kadar yeterlidir.

1. Kesinlikle katılmıyorum.

2. Katılmıyorum.

3. Kararsızım.

4. Katılıyorum.

5. Kesinlikle katılıyorum.

☐☐☐☐☐

3. Kaldırımların bakımı ve temizliği, düzenli olarak yapılır ve kullanım için engel teşkil edecek herhangi bir sorun yoktur.

1. Kesinlikle katılmıyorum.

2. Katılmıyorum.

3. Kararsızım.

4. Katılıyorum.

5. Kesinlikle katılıyorum.

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4. Kaldırımların üzerinde aydınlatma ve güvenlik önlemleri bulunarak, gece veya kötü hava koşullarında bile güvenli bir şekilde kullanılabilir.

1. Kesinlikle katılmıyorum.

2. Katılmıyorum.

3. Kararsızım.

4. Katılıyorum.

5. Kesinlikle katılıyorum.

☐☐☐☐☐

5. Engelli bireylerin kaldırımlara erişimi ve kullanımı, özel rampalar ve erişilebilirlik düzenlemeleri ile kolaylaştırılmıştır.

1. Kesinlikle katılmıyorum.

2. Katılmıyorum.

3. Kararsızım.

4. Katılıyorum.

5. Kesinlikle katılıyorum.

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Bölgenizdeki sokak altyapısı günlük yaşamınızda erişilebilirlik konusunda ne gibi sıkıntılar yaratıyor? Örneğin, kaldırımların dar olması, engelli rampalarının yetersizliği veya kaldırımların düzensiz bakımı gibi konular günlük hareketliliğinizde zorluklar çıkarıyor mu? Eğer varsa, bu sıkıntılar hangi aktivitelerde veya durumlarda belirginleşiyor? Lütfen deneyimlerinizi ve düşüncelerinizi detaylı olarak paylaşınız.

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Toplu Taşıma Altyapısı

1. Bölgedeki toplu taşıma araçları, günlük ulaşım ihtiyaçlarınızı karşılamak için yeterli düzeyde hizmet sağlıyor.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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2. Toplu taşıma araçlarının güzergahları ve sıklığı, ulaşımımı planlarken yeterli esnekliği sağlıyor.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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3. Mahallenin planlı alanında oturuyor olsaydım, toplu taşımaya erişimim daha kolay olurdu. (gecekondu oturanlar için)

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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4. Gecekondu alanında oturuyor olsaydım, toplu taşıma hizmetlerinden yararlanmak daha zor olurdu. (planlı alanda oturanlar için)

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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5. Oturduğum bölgede toplu taşıma araçları ve güzergahları yeterince sağlanmıyor.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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Oturduğunuz bölgedeki toplu taşıma hizmetlerinden faydalanma konusunda yaşadığınız zorlukları daha ayrıntılı açıklayınız?

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Su ve Kanalizasyon Altyapısı

1. Mahallemdeki su temini, günlük ihtiyaçlarımı karşılamak için yeterli düzeyde sağlanmaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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2. Kanalizasyon sistemimiz, atık suyun güvenli bir şekilde uzaklaştırılmasını sağlamak için etkili bir şekilde çalışıyor.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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3. Planlı bölgelerdeki su ve kanalizasyon hizmetlerinin kalitesi, gecekondan alanlarına kıyasla daha yüksektir.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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4. Gecekondan alanlarında yaşayanlar, su ve kanalizasyon hizmetlerinden yeterince faydalanamamaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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5. Su ve kanalizasyon altyapısındaki eksiklikler, mahalledeki yaşam kalitesini olumsuz etkilemektedir.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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Su ve kanalizasyon hizmetlerinin sunumuna ilişkin olarak yaşadığınız zorlukları veya varsa memnun kaldığınız noktaları daha ayrıntılı bir şekilde açıklayınız?

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Elektrik Altyapısı

1. Mahallemdeki elektrik altyapısı, günlük elektrik ihtiyaçlarımı karşılamak için yeterli düzeyde sağlanmaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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2. Elektrik kesintileri ve voltaj dalgalanmaları gibi sorunlar, günlük yaşamımı olumsuz etkilemektedir.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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3. Planlı bölgelerdeki elektrik hizmetleri, gecekondu alanına kıyasla daha güvenilir ve kesintisizdir.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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4. Gecekondu alanında yaşayanlar, elektrik hizmetlerinden yeterince faydalanamamaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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5. Elektrik ağındaki eksiklikler, mahalledeki yaşam kalitesini olumsuz etkilemektedir.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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Elektrik hizmetlerinin sunumuna ilişkin olarak yaşadığınız zorlukları veya varsa memnun kaldığınız noktaları daha ayrıntılı bir şekilde açıklayınız?

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Mahalle Parkları

1. Mahallemdeki parklar, günlük yaşamımda dinlenmek ve rekreasyon aktiviteleri yapmak için yeterli düzeyde sağlanmaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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2. Mahalledeki bütün parklara yürüyerek kolaylıkla erişebiliyorum.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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3. Parklarda güvenlik önlemleri yeterli düzeyde olduğu için kendimi güvende hissediyorum.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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4. Bölgemdeki parklar (varsa) yeterince bakımlı, düzenli ve konforludur.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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5. Gecekondu alanında yaşayanlar, mahalle parklarından yeterince faydalanamamaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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Mahalle parklarına ilişkin olarak kullanımınızı ve erişiminizi etkileyen unsurlar varsa detaylı bir şekilde açıklayınız?

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Eğitim Tesisleri

1. Mahallemdeki okullar ve diğer eğitim tesisleri, çocukların eğitim ihtiyaçlarını karşılamak için yeterli düzeyde sağlanmaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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2. Eğitim tesislerinin kalitesi ve olanakları, mahalle sakinlerinin eğitim olanaklarına etkili bir şekilde katkı sağlamaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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3. Eğitim tesislerine kolay ve güvenli bir şekilde erişim sağlayabiliyorum.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

☐

4. Gecekondu alanında yaşayanlar, eğitim tesislerinden yeterince faydalanamamaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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5. Eğitim tesislerinde her öğrenciye kaliteli eğitim verildiğini düşünüyorum.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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Mahallenizde sunulan eğitim hizmetlerine fiziksel olarak erişirken yaşadığınız zorluklardan ve eğitim hizmetinin kalitesinde gördüğünüz eksikliklerden kısaca bahseder misiniz? Sizce bu zorluklarla karşılaşmanızın sebepleri neler olabilir?

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Sağlık Tesisleri

1. Mahallemdeki sağlık tesisleri, sağlık ihtiyaçlarımı karşılamak için yeterli düzeyde sağlanmaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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2. Sağlık tesislerinin kalitesi ve sunulan hizmetler, mahalle sakinlerinin sağlık durumuna etkili bir şekilde katkı sağlamaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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3. Sağlık tesislerine kolay ve güvenli bir şekilde erişim sağlayabiliyorum.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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4. Gecekondu alanında yaşayanlar, sağlık tesislerinden yeterince faydalanamamaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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5. Sağlık tesislerinde her bireye kaliteli sağlık hizmeti sunulduğunu düşünüyorum.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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Mahallenizde sunulan sağlık hizmetlerine fiziksel olarak erişirken yaşadığınız zorluklardan ve sağlık hizmetinin kalitesinde gördüğünüz eksikliklerden kısaca bahseder misiniz? Sizce bu zorluklarla karşılaşmanızın sebepleri neler olabilir?

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Belediye Hizmet Binaları (Kütüphane, Halk Eğitim Merkezi, Aile ve Yaşam Merkezi vb.)

1. Mahallemdeki belediye hizmet binaları çeşitli ve yeterince sağlanmaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

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2. Belediye hizmet binalarının konumu ve erişilebilirliği, vatandaşların kamu hizmetlerinden etkin bir şekilde faydalanmasını sağlamaktadır.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

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3. Kararsızım.

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4. Katılıyorum.

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5. Kesinlikle katılıyorum.

☐

3. Belediye hizmet binalarına kolay ve güvenli bir şekilde erişim sağlayabiliyorum.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

4. Gecekondu alanında yaşayanlar, belediye hizmet binalarından yeterince faydalanamamaktadır.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

5. Belediye hizmet binalarının kullanımının her bireye eşit bir şekilde açık olduğunu düşünüyorum.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

Mahallenizde bulunan belediye hizmet binaları hakkında ne kadar bilginiz var, buralarda sunulan servisleri kullanıyor musunuz? Kullanmıyorsanız nedenleriyle birlikte kısaca açıklayınız?

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B. Final Survey Form after Reliability and Validity Tests

Anket: Mutlu Mahallesi'nde Temel Kentsel Hizmetlere Erişim ve Adalet Algısı

Sayın Katılımcı,

Bu anketi, Orta Doğu Teknik Üniversitesi Şehir Planlama dalında yürüttüğüm “Planlı ve Plansız Alanlarda Temel Kentsel Hizmetlere Erişimin Mekansal Adalet Perspektifinden Analizi: Mekansal Adaletin Haritalanması, Ankara, Mamak, Mutlu Mahallesi Örneği” başlıklı yüksek lisans tez çalışmamın bir parçası olarak gerçekleştiriyorum.

Çalışmanın odak noktası, Ankara'nın Mamak ilçesinde bulunan Mutlu Mahallesi'nde temel kentsel hizmetlere erişim ve adalet konularını mekansal adalet perspektifinden incelemektir. Bu anket, Mutlu Mahallesi'ndeki yerel halkın temel kentsel hizmetlere erişim deneyimlerini ve adalet algılarını anlamak için tasarlanmıştır. Elde edilen veriler, araştırmanın genel sonuçlarına katkı sağlayacak ve mevcut durumun ortaya konulmasında önemli bir adım olacaktır.

Anketi doldururken hiçbir kişisel bilgiye ihtiyaç duyulmamaktadır ve cevaplarınız tamamen anonim olarak ele alınacaktır. Katılımınız sadece araştırmanın doğruluğunu ve kapsamlılığını artırmak amacıyla kullanılacaktır. Herhangi bir kişisel bilgi paylaşmanız gerekmemektedir. Anketimizi doldururken rahat olabilir ve düşüncelerinizi açıkça ifade edebilirsiniz.

Genel Sorular

Yaşınız:

Cinsiyetiniz:

Engel durumunuz (varsa):

Eğitim Durumu:

Çalışma Durumu (çalışıyorsa mesleği):

Oturduğunuz yer (gecekondu alanı/planlı alan):

Kentsel Servislere Yönelik Sorular

Lütfen aşağıda belirtilen her bir kentsel servis türüne yönelik düşüncelerinizi belirtmek için 1'den 5'e kadar olan ölçekteki seçeneklerden birini seçiniz ve en sondaki soruları cevaplayınız.

Sokak Altyapısı (kaldırım)

1. Bölgenizdeki kaldırımlar, yaya trafiği için uygun bir şekilde tasarlanmış ve düzenlenmiştir.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

2. Kaldırımların genişliği, yürüyüş yapan insanların rahat ve güvenli bir şekilde hareket etmelerini sağlayacak kadar yeterlidir.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

3. Kaldırımların bakımı ve temizliği, düzenli olarak yapılır ve kullanım için engel teşkil edecek herhangi bir sorun yoktur.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

4. Kaldırımların üzerinde aydınlatma ve güvenlik önlemleri bulunarak, gece veya kötü hava koşullarında bile güvenli bir şekilde kullanılabilir.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

5. Engelli bireylerin kaldırımlara erişimi ve kullanımı, özel rampalar ve erişilebilirlik düzenlemeleri ile kolaylaştırılmıştır.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

Bölgenizdeki sokak altyapısı günlük yaşamınızda erişilebilirlik konusunda ne gibi sıkıntılar yaratıyor? Örneğin, kaldırımların dar olması, engelli rampalarının yetersizliği veya kaldırımların düzensiz bakımı gibi konular günlük hareketliliğinizde zorluklar çıkarıyor mu? Eğer varsa, bu sıkıntılar hangi aktivitelerde veya durumlarda belirginleşiyor? Lütfen deneyimlerinizi ve düşüncelerinizi detaylı olarak paylaşınız.

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Toplu Taşıma Altyapısı

1. Bölgedeki toplu taşıma araçları, günlük ulaşım ihtiyaçlarınızı karşılamak için yeterli düzeyde hizmet sağlıyor.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

2. Toplu taşıma araçlarının güzergahları ve sıklığı, ulaşımımı planlarken yeterli esnekliği sağlıyor.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

3. Oturduğum bölgede toplu taşıma araçları ve güzergahları yeterince sağlanmıyor.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

Oturduğunuz bölgedeki toplu taşıma hizmetlerinden faydalanma konusunda yaşadığınız zorlukları daha ayrıntılı açıklayabilir misiniz?

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Su ve Kanalizasyon Altyapısı

1. Kanalizasyon sistemimiz, atık suyun güvenli bir şekilde uzaklaştırılmasını sağlamak için etkili bir şekilde çalışıyor.

1. Kesinlikle katılmıyorum.

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2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

2. Su ve kanalizasyon altyapısındaki eksiklikler, mahalledeki yaşam kalitesini olumsuz etkilemektedir.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

Su ve kanalizasyon hizmetlerinin sunumuna ilişkin olarak yaşadığınız zorlukları veya varsa memnun kaldığınız noktaları daha ayrıntılı bir şekilde açıklayınız?

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Elektrik Altyapısı

1. Planlı bölgelerdeki elektrik hizmetleri, gecekondü alanına kıyasla daha güvenilir ve kesintisizdir.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

2. Gecekondü alanında yaşayanlar, elektrik hizmetlerinden yeterince faydalanamamaktadır.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

3. Elektrik ağındaki eksiklikler, mahalledeki yaşam kalitesini olumsuz etkilemektedir.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

Elektrik hizmetlerinin sunumuna ilişkin olarak yaşadığınız zorlukları veya varsa memnun kaldığınız noktaları daha ayrıntılı bir şekilde açıklayınız?

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Mahalle Parkları

1. Mahallemdeki parklar, günlük yaşamımda dinlenmek ve rekreasyon aktiviteleri yapmak için yeterli düzeyde sağlanmaktadır.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

2. Mahalledeki bütün parklara yürüyerek kolaylıkla erişebiliyorum.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

3. Parklarda güvenlik önlemleri yeterli düzeyde olduğu için kendimi güvende hissediyorum.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

4. Bölgemdeki parklar (varsa) yeterince bakımlı, düzenli ve konforludur.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

Mahalle parklarına ilişkin olarak kullanımınızı ve erişiminizi etkileyen unsurlar varsa detaylı bir şekilde açıklayınız?

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Eğitim Tesisleri

1. Mahallemdeki okullar ve diğer eğitim tesisleri, çocukların eğitim ihtiyaçlarını karşılamak için yeterli düzeyde sağlanmaktadır.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

2. Eğitim tesislerinin kalitesi ve olanakları, mahalle sakinlerinin eğitim olanaklarına etkili bir şekilde katkı sağlamaktadır.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

3. Eğitim tesislerine kolay ve güvenli bir şekilde erişim sağlayabiliyorum.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

4. Eğitim tesislerinde her öğrenciye kaliteli eğitim verildiğini düşünüyorum.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

Mahallenizde sunulan eğitim hizmetlerine fiziksel olarak erişirken yaşadığınız zorluklardan ve eğitim hizmetinin kalitesinde gördüğünüz eksikliklerden kısaca bahseder misiniz? Sizce bu zorluklarla karşılaşmanızın sebepleri neler olabilir?

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Sağlık Tesisleri

1. Mahallemdeki sağlık tesisleri, sağlık ihtiyaçlarımı karşılamak için yeterli düzeyde sağlanmaktadır.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

2. Sağlık tesislerinin kalitesi ve sunulan hizmetler, mahalle sakinlerinin sağlık durumuna etkili bir şekilde katkı sağlamaktadır.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

3. Gecekondu alanında yaşayanlar, sağlık tesislerinden yeterince faydalanamamaktadır.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

Mahallenizde sunulan sağlık hizmetlerine fiziksel olarak erişirken yaşadığınız zorluklardan ve sağlık hizmetinin kalitesinde gördüğünüz eksikliklerden kısaca bahseder misiniz? Sizce bu zorluklarla karşılaşmanızın sebepleri neler olabilir?

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Belediye Hizmet Binaları (Kütüphane, Halk Eğitim Merkezi, Aile ve Yaşam Merkezi vb.)

1. Mahallemdeki belediye hizmet binaları çeşitli ve yeterince sağlanmaktadır.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

2. Belediye hizmet binalarının konumu ve erişilebilirliği, vatandaşların kamu hizmetlerinden etkin bir şekilde faydalanmasını sağlamaktadır.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

3. Belediye hizmet binalarına kolay ve güvenli bir şekilde erişim sağlayabiliyorum.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

4. Belediye hizmet binalarının kullanımının her bireye eşit bir şekilde açık olduğunu düşünüyorum.

1. Kesinlikle katılmıyorum.

☐

2. Katılmıyorum.

☐

3. Kararsızım.

☐

4. Katılıyorum.

☐

5. Kesinlikle katılıyorum.

☐

Mahallenizde bulunan belediye hizmet binaları hakkında ne kadar bilginiz var, buralarda sunulan servisleri kullanıyor musunuz? Kullanmıyorsanız nedenleriyle birlikte kısaca açıklayınız?

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