URBAN RESILIENCE OF SMALL TOWNS DURING THE COVID-19 PANDEMIC: THE CASE OF SEFERIHISAR

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URBAN RESILIENCE OF SMALL TOWNS DURING THE COVID-19 PANDEMIC: THE CASE OF SEFERİHİSAR

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pandemic. In line with the Cittaslow movement, it has been observed that the studies that took place in the region before the Covid-19 pandemic were in the nature of preparing the region for the epidemic. Despite this, due to the serious population increase in the region, many problems such as parking, transportation and use of green areas are encountered. As a result, it can be said that although Seferihisar took many measures, it can be concluded that in terms of the urban resilience the efficiency of these measures needs further improvements.

Keywords: Resilience, Urban resilience, Covid-19, Built environment, Open spaces, Migration, Small town

ÖZET

COVİD-19 PANDEMİ SÜRECİNDE KÜÇÜK BİR KENT OLARAK SEFERİHİSAR'IN KENTSEL DİRENCİ

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Covid-19 tüm dünyada insan hayatını olumsuz yönde etkileyen güncel bir salgındır ve negatif etkilerinden korunmak amacıyla bir çok uygulama gerçekleştirilmiştir. Yeni normaller sonucu uzaktan eğitim ve çalışma sisteminin yaygınlaşması ile kırsal alanlara göç başlamıştır. Covid-19 pandemi süreci, kentsel dayanıklılığın ani kriz ve şoklara karşı ne kadar önemli olduğunu göstermektedir. Bu çalışmanın amacı, göç edilen küçük kasabalarda nüfus artışına ve kullanım yoğunluğuna bağlı olarak yapılı çevre ve açık alan kullanımı üzerindeki baskının kentin dayanıklılığı üzerinde nasıl bir etkisi olduğunu araştırmaktır. Türkiyedeki ilk sakin şehir olan Seferihisar bir vaka alanı olarak belirlenmiştir. Çalışmada, Seferihisar'ın kentsel dayanıklılığı bölgede yaşayanlara uygulanan anket çalışması ile değerlendirilmiştir. Cittaslow hareketi doğrultusunda Covid-19 pandemisi öncesinde bölgede meydana gelen çalışmaların

bölgeyi salgına hazırlar nitelikte olduğu görülmüştür ve salgın boyunca çalışmalar devam etmektedir. Buna rağmen, bölgedeki ciddi nüfus artışından dolayı bir çok otopark, ulaşım, yeşil alan kullanımı, spor alanlarının yetersizliği gibi bir çok problemle karşılaşılmaktadır. Sonuç olarak, Covid-19 ile mücadele sürecinde Seferihisar'da bir çok önlem alınmış olmasına rağmen, salgın sürecinde bu önlemlerin kentsel dayanıklılık bağlamında etkinliklerinin arttırılması gerektiği söylenebilir.

Anahtar Kelimeler: Dayanıklılık, Kentsel dayanıklılık, Covid-19, Yapılı çevre ve açık alanlar, Göç, Küçük kentler

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

TUİK:	Turkish Statistical Institute
THY:	Turkish Airlines
BRIC:	Building Resilient Infrastructure and Communities
AA:	Anatolian Agency

CHAPTER 1: INTRODUCTION

1.1. Problem Field

Cities are a constantly evolving product of history, economy, and society, and like living organisms, they are dynamic and change over time. Since the day they were founded, cities have changed by expanding, contracting, building and destruction. These changes were not just physical. Structural and functional changes have been experienced due to many reasons such as natural disasters, climate changes, and the negativities brought by technology. On the other hand, today, global urbanization rates have reached high levels and this upward trend continues. According to the United Nations' 2018 World Urbanization Report, 55% of the world's population lives in urban areas, and this proportion is expected to rise to 68% by 2050. (United Nations, 2018) As cities grow in terms of area and population, the dangers and risks they face are also increasing. Especially in developing countries, some problems occur due to the unplanned growth of cities. Thus, cities become places where urban services are not developed uniformly in the whole city and are vulnerable to risks such as overpopulation and disasters. At this point, the concept of resilience draws attention in the literature. It is very important to create urban resilience in order not to lose the economic, social, cultural, and environmental gains gained over decades due to sudden shocks or longer-term stresses. Because the future of cities depends on their capacity to cope with these challenges and the capacity of cities to be prepared for, respond to, and adapt to the problems, dangers, disasters, and risks they face determine their urban resilience. This study aims to examine the result of the global crisis, the Covid-19 pandemic, as a case study in the slow city of Seferihisar from the perspective of urban resilience.

1.2. Research Question of the Study

The research question in this study is: 'How has the Covid-19 process impacted the urban resilience in small towns about the use of built environment? The study has been

performed in oder to measure the urban resilience of Seferihisar as a small towns during the Covid-19 process.

1.3. Significance of the Study

The Covid-19 pandemic is a current issue occurring worldwide. This global pandemic, which has occurred all over the world, has caused the death of many people as well as economic and social hardship. This disease, which is transmitted by droplets, spread quickly because it is very easily transmitted by physical contact. In order to protect people from the disease, home quarantine has been implemented in many countries. Also, many changes have occurred in people's lives with the Covid-19 process. In particular, issues such as housing, work, education, and open space use are the most obvious changes. Many people have left cities and moved to small towns to get away from crowded environments. There has been an increase in the number of people living in small cities due to migration to these areas. In this study, the aim is to measure the urban resilience of small cities receiving migration in the case of Seferihisar, a small town in the İzmir province of Turkey. In terms of urban resilience, the thesis examines the response of the built environment to the changing conditions. The study was performed in order to measure the urban resilience of Seferihisar as a small town during the Covid-19 process. The research was carried out in three parts as urban resilience, pandemic in the city, and small-town resilience during the Covid-19 pandemic. Later, the case study on Seferihisar is provided.

1.4. Methodology

The method of a thesis is based on a case study approach and used survey research. The survey questions were determined based on the findings of the literature review. Seferihisar where the first slow city in Turkey was chosen as the case area in the survey study. The survey study was prepared to measure the urban resilience of Seferihisar during the Covid-19 process. This thesis and survey were mainly conducted during the pandemic process where many people were at home. Therefore, the surveys were distributed using the random sampling method. Online surveys were created via Google forms for easy distribution of the surveys. Also, the surveys were distributed in hard copy for people who could not take the online survey.

The thesis consists of five chapters. In the first chapter, the aim of the thesis, the working method, the research question, and the scope of the thesis are explained. In the second chapter of the thesis, the concept of urban resilience has been evaluated through the sources that have taken place in the literature from past to present. According to the concepts of urban resilience in the literature, findings were obtained regarding what cities should be resilient to. Then, the different components of urban resilience as ecological, social, and disaster resilience are explained. Since the disaster framework is very dominant in resilience studies, the relationship between disaster resilience and the Covid-19 pandemic has been specifically addressed.

In the third part of the thesis, the relationship between the pandemic and cities which is another part of the research is investigated. The changes in people's lives during the Covid-19 process were explained separately especially based on the framework of the city planner Oflaz (2020). At this point, changes in the most basic habits such as working, education, shopping, transportation, open space use, and dwelling were examined separately. These changes are of more importance on migration to small cities and they have the potential to explain the changes in the built environment, which the research survey focuses heavily on.

In the fourth part of the study, the case study is presented. As the case study, Seferihisar district which is located at a touristically important point of İzmir was chosen. Seferihisar district was declared the first slow city of Turkey in 2009. Seferihisar has been chosen as a case study because of the small-town's identity close to İzmir and the availability of summer houses are expected to attract serious temporary migration during Covid-19 due to its slow city. In the Results section, the survey results are explained in detail. According to the survey results, many people who own a summer house or have bought a new house have settled in the region. Therefore, the population has increased in Seferihisar due to migration, and this has caused many changes in the lives of the local people and summer house owners, which affected the frequency of use in the built environment and open spaces. In a town that is used to a seasonal population increase, Covid 19 process has resulted in some stresses and visible changes in space use. The findings obtained from the research were conveyed in detail. The discussion of the results are also offered in the context of urban resilience after the Covid-19. In the fifth part of the research, a conclusion is provided.

CHAPTER 2: URBAN RESILIENCE

Urban resilience can be briefly defined as ensuring the continuity of sustainability. The concept of "sustainability" is vital in urban resilience. Cities must have a sustainable and renewable structure under all circumstances, even in extraordinary situations such as natural disasters and epidemics. Many factors are affecting urban resilience. In this section, the definition of urban resilience, factors affecting urban resilience, the scope of urban resilience about disaster, ecological and social issues, and the resilience of small towns will be discussed.

2.1. Definition of Resilience

The concept of resilience, which is the subject of the thesis, appears in the literature as a concept that is especially included in the sustainability of ecosystem services. There is no generally accepted definition of the concept of resilience and new meanings are given to the concept depending on the scope of its usage area and many different definitions are accomplished for this concept (Walker and Salt, 2006). Resilience is a concept that has been widely studied especially after the global economic crisis of 2009 in urban and rural areas. The occurrence of economic crisis at the same time as the environmental crisis and climate change is the point that distinguishes this crisis from the others (Scott and Gkartzios, 2015). At this point, it is of great importance for cities to maintain adaptation to changing conditions by analyzing physical, social, and economic systems. In other words, individuals, institutions, and societies must have a structure that can cope with changes, adapt to changes, and shape change in a rapidly changing and increasingly complex world. This approach overlaps with the concept of “resilience” which tries to explain how the deal with the changes and challenges of the uncertain world. As a result of the negative consequence of the crises experienced, the concept of resilience has entered literature (Galantini, 2019).

The concept of resilience entered the literature with the "ecological system" studies of C. S. Holling. In the initial periods when the concept was used, it expressed the theoretical approach of "modeling change" to protect the order and stability of the ecological system against structural and functional effects (Walker and Salt, 2006). This concept clarified the theoretical expansion of the “stability of ecological systems”

discussed in the 1960s in that ensuring the durability and determination of the systems will ensure the stability of the system (Folke et al., 2004). The concept defines the ability to achieve balance, manage changes, stay prepared and stable against uncertainties together with the developments it has gone through (Folke et al., 2004). The debates on resilience, which started with Holling's studies, quickly entered other humanities, especially sociological and anthropological research as well as ecological system research. Sustainability of ecological systems and biodiversity, climate change, risk management, and the resilience of social structure are among the leading research topics influenced by resilience (Altun, 2021).

On the other hand, different uses of the concept in different disciplines cause multiple definitions this confuses what resilience means. One of the main reasons for this confusion is the use of the concept of resilience in relation to other concepts such as sustainability, fragility, adaptation, and conformation. (Meerow and Newell, 2016) Resilience is defined as the long-term adaptability and short-term coping ability of the system in the most general sense (Sharifi and Yamagata, 2014). In many different disciplines, the concept of resilience is used in the same sand, and 'reaction to deterioration' stands out for the explanation of the concept (Tu, 2020). The concept of resilience has traditionally been used in physics and psychology.

In physics, resilience describes the ability of an object to return to its original position after receiving a crash, and in psychology, it describes its ability to successfully overcome shock and trauma (Cartalis, 2014). In addition, in the field of psychiatry, it is defined as the ability of individuals to cope with the events, and changes in the transition periods in their lives. The management analysts used resilience in the sense of an organization's ability to heal toward a center after a disruption or the ability to recover towards the chain through which some key elements are provided and the ability to return things to their usual state. Also, resilience refers to the measure of the ability of core workers or industries to recover after their losses for economists. Information technology professionals define resilience as a measure of how well communication networks can cope with service disruption, which can be summarized as a major power loss (Kavanoz, 2020).

Also, resilience refers to preventing changes, risks, and surprises or ensuring the sustainability of the system by keeping up with such uncertainties (Holling, 1973). The concept has been handled within the framework of the urban planning approach

in the context of climate change and disaster risks, mainly in relation to sustainability in the urban area (Kavanoz, 2020).

Also, the concept of resilience has been recently defined within the framework of socio-ecological approaches. In the socio-ecological system, there is an insistence that there are many dynamics between the processes of sudden and gradual change and that the capacity for adaptation and transformation is at the center of resistance. (Folke et al., 2004)

2.2. The Definition of Urban Resilience

Resilience has emerged as a concept related to cities and planning in response to environmental threats emerging in the social and institutional framework (Kavanoz, 2020). Cities always undergo changes both internally and externally and as a result of these changes, either expand or develop new forms and functions deal with various problems (Wikström, 2013). Also, cities with their structured and natural environment can be defined as complex systems dominated by social, economic, and political dynamics and that are in constant change and development. In the process of urbanization supported by technological developments, although urban economic growth and spatial development accelerate, risks, uncertainties and crises also increase (Quay, 2004). Also, cities are faced with a variety of problems, with ever-increasing risks, disasters, and crises, with varying spatial and temporal characteristics, densities, and forms (Medd and Marvin, 2005). Furthermore, today, cities and city dwellers are facing many challenges due to rapid urbanization, climate change, and political instability. This variability generates numerous and complex answers to the question of what cities should be resilient to (Mehmood, 2016). Therefore, ensuring (Adger, 2000) resilience can be defined as an indispensable priority for cities (Galantini and Tezer, 2011).

The concept of resilience is often used in the urban area within the framework of disaster risk, climate change, and problems related to sustainability (Kavanoz, 2020). Therefore, it will be useful to define and examine the resilience theory on an urban scale (Galantini and Tezer, 2011). Urban resilience is located at the intersection of the production, consumption, and storage chain, demography income level and equity, institutional structuring and organizations, ecosystem services, and the urban landscape. Measurement of the durability of urban systems can be done through these

determinants (Galantini and Tezer, 2011). On the other hand, the primary goal of urban resilience is to create disaster-resistant societies by providing less loss and a faster recovery in the event of a disaster (Scherzer et al., 2019).

According to Holling, urban resilience is considered as the ability to withstand change before reorganizing for a new system and structure (Holling, 2001). So, urban resilience can be achieved through ecosystems and people staying in balance at the same time. Therefore, urban resilience can be described as being flexible and resilient to unpredictable and unexpected situations rather than the ability to respond to impacts (Galantini and Tezer, 2011). Also, urban resilience has become one of the actual approaches as it enables the improvement of living conditions, an increase of the knowledge level in the city, and the formation of a multi-actor structure in decision-making processes. At this point, urban resilience is an issue that should be handled with a holistic approach in physical, social, and economic terms (Mehmood, 2016).

2.2.1. Scope of Urban Resilience

In literature, urban resilience is dissected into different sub-topics of focus and interest. For example, Resilience Alliance (Csiro, 2007) defined urban resilience in four basic components as metabolic flows, social dynamics, governance networks, and the built environment (Galantini and Tezer, 2011). Firstly, metabolic flow refers to the production, supply, and consumption chain in ecosystems that transcend the city's borders. This includes productive capacity for energy and goods and services required for the well-being of the population and the quality of life of the population. The diversity of production systems, their relationship with each other, and their efficiency are the factors that ensure durability. Secondly, the social dynamics include demographic characteristics, social capital, and inequality of the population. Thirdly, governance networks consist of institutions and organizations that play a role in the administration of the city and the relations between them at regional, national and international levels. Governance also defines the management of capital and services as infrastructure, education, or security. Lastly, the built environment refers to different ecological and urban landscapes and habitats. Ideologies, policies, building codes, and transport activities affect the development of the built environment (Galantini and Tezer, 2011).

Another framework is according to Building Resilient Infrastructure and Communities (BRIC), which defined resilience as a measure of communities in 49 indicators from 6 main sections including social/cultural, human-wellbeing, economic/financial, infrastructure/built environment / housing, institutional / governance, community capacity, and environment / natural. BRIC is a program to reduce risks from natural disasters. It is aimed to minimize the impact with the measures taken before natural disasters occur. The aim is to create "durable infrastructure" and "durable collections" (Fema, 2020).

On the other hand, Altun (2021) defines cities as very complex systems with their social, economic, ecological, and built environment. The concept of urban resilience means that these complex systems can be resistant to changes and uncertainties together with their existing vulnerabilities. Fort this reason, the issue of urban resilience gains great importance in terms of sustainable development and the planning and design of resilient cities are the subject of urban planning. Resilience assessment also varies according to the social, economic, and ecological structural elements of the area in problems and the importance of these elements. Therefore, urban resilience research topics are also varied (Walker and Salt, 2006). Based on the definition of urban resilience and different components of the frameworks in the literature, Altun (2021) argues that urban resilience can be generally grouped under three main topics including social, disaster, and ecological resilience (Altun, 2021). This scope of urban resilience is given in Figure 1 and will be elaborated further. Altun's framework, Resilience Alliance Framework, and BRIC Framework are similar to each other in the sense that they introduce social, environmental, and physical aspects as major components. In Altun's framework, the disaster concept, which is an important part of the definition of resilience has been specifically emphasized. Since this sub-category provides relevant insight to Covid-19, the thesis continues with this framework in detail.

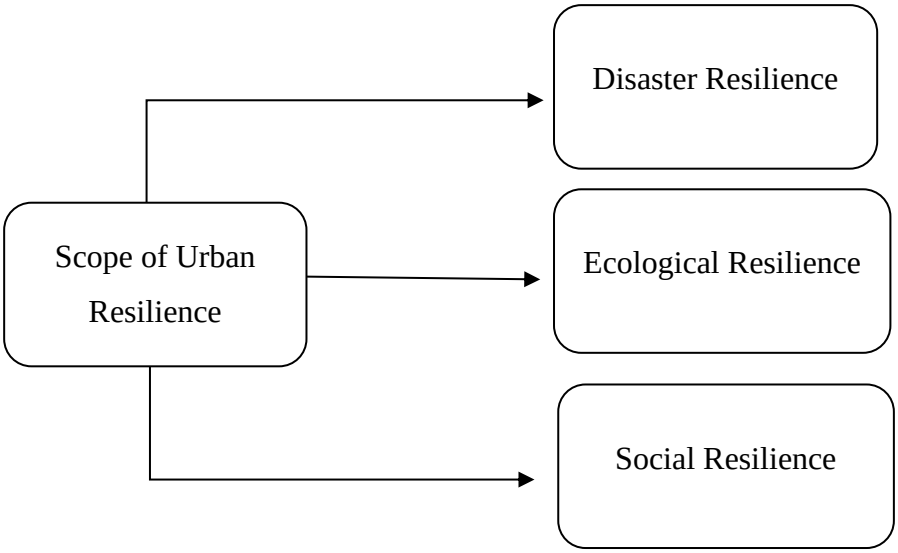

Figure 1. Scope of Urban Resilience (Source: Altun, 2021)

2.2.1.1. Ecological / Environmental Resilience

Urban ecosystems develop over time and space as a result of dynamic interactions between socio-economic and biophysical processes operating at multiple scales. The acceleration of urban development causes the ecosystems around them to break down, separate, lose quality and diversity and even disappear at a great speed (Alberti and Marzluff, 2004). This situation is defined as the resilience of societies against ecological events. Natural events can be given as examples of these (Galantini and Tezer, 2011).

In order to maintain ecological resilience, people should not harm the environment in which they live in. They must be gentle to nature and not disturb the natural order. For example, people living in rural areas earn their living from agriculture. The pesticides they use while farming can harm nature and the environment. This should not be the case in order to ensure ecological durability. People need to cope with the problems they experience with more natural methods. Another example is the burning of forests to be used as agricultural land. People create fields and agricultural lands by burning forests. This situation disturbs the ecological balance. It causes the extinction of the creatures living there. As a result of this situation, insects invade other agricultural areas owned by humans. When the ecological balance is disrupted, the extinction of

one species causes the increase or decrease of the other species (Demirbaş and Aydın, 2020)

The concept of "recycling" is especially important to ensure ecological resilience. Human waste, plastics, batteries, etc. materials that do not disappear in nature cause degradation of nature. People should use recyclable materials in order not to harm the environment in which they live. Ensuring ecological resilience can be achieved in direct proportion to environmental protection (Keys et al., 2019).

2.2.1.2. Social Resilience

The concept of social resilience can be considered from many aspects. The criterion of resilience in terms of society is defined as the resistance it shows against the difficulties it faces (Luthar and Cicchetti, 2000). The concept of social resilience is associated with the resilience of the family, the smallest unit of society. According to Mullin and Arce (2007), the scope of social resilience is given as: “Poverty, Disasters, Cultural Disappearance, Economic instability, Security, Outbreaks” (Mullin and Arce, 2009).

The concept of Social Resilience is especially important for societies whose income source depends on the socio-ecological structure. Production decreases as a result of urban migration and fewer people living in rural areas. Societies become dependent on consumption. This situation can be associated with different dimensions of social weakness (Mullin and Arce, 2009).

When the concept of poverty is examined, the phenomenon of poverty brings along economic problems, the inability to participate in production, and move away from science and technology. The poor population in the society, who cannot be provided adequate service, cannot use clean water, and cannot be fed adequately, is regarded as the segment of society with the lowest resilience. This part of the social structure is vulnerable to all kinds of disasters, crises, and uncertainties, as well as loss of cultural heritage and resolution (Kaya, 2013).

In other words, the deprivation of the nutrients societies obtains from natural resources eliminates their self-sufficiency. Therefore, societies remain vulnerable to unpredictable situations. Especially in situations such as crises, natural disasters, and wars, the opportunities for society to be self-sufficient and to produce flexible and fast solutions are decreasing. This shows that social resilience is reduced (Kaya, 2013).

Lifestyle imposed by urbanization may distance individuals living in cities. While people in rural areas frequently communicate with each other, communication is observed to decrease in urban areas. This situation prevents the formation of social solidarity. Failure to provide social solidarity causes societies not to find a solution while experiencing unforeseen situations. Societies cannot act together and have to struggle with unforeseen consequ

ences for unforeseen situations. In order to prevent these situations, societies must live together in integrity. Societies need to produce and reduce their dependence on outside resources. Regardless of the conditions, society must be self-sufficient (Pelling et al., 2013).

2.2.1.3. Disaster Resilience

The concept of resilience was first associated with natural disasters and hazards by Timmerman and according to his theory, resilience is defined as the measure of a system or part of a system's capacity to absorb and recover from a dangerous incident. There are two different strategies as a reliable system and a resilient system to prevent a crisis. According to these strategies, a reliable system has a defense mechanism against negative incidents while a resistant system has a structure that can absorb negative effects and recover (Scherzer et al., 2019).

Godschalk explains that urban design and built environment must be resilient and flexible to unexpected changes and disasters so that, cities can avoid the negative effects of these risks. The severity of the effects of disasters on cities varies depending on the social and economic weaknesses/strengths of the city. The flexibility and adaptability of the city are directly proportional to its ownership of the socio-economic, physical, political, and ecological systems. Therefore, cities are so severely affected by disasters and suffer losses. Urban risks are defined depending on natural or technological disasters shaped by urban weaknesses (Fleischhauer, 2008).

Godschalk (2003) described some criteria to create more resilient cities against risks:

- *Redundancy*: number of functionally similar components so that the entire system does not fail when one component fails
- *Diversity:* number of functionally different components to protect the system against various threats

- *Efficiency:* positive ratio of energy supplied to the energy delivered by a dynamic system
- *Autonomy*: the capability to operate independently of outside control
- *Strength: the* power to resist attack or other outside force
- *Interdependence*: system components are connected so that they support each other
- *Adaptability:* capacity to learn from experience and the flexibility to change
- *Collaboration;* multiple opportunities and incentives for broad stakeholder participation

Furthermore, natural disasters may be specific to a location, or they may occur due to the effects of natural systems at global or regional levels. The subject of climate change is examined as the most important natural disaster in the content of resilience. Climate change has affected every geography on a global and local scale as the most undefined and uncertain change of today. Many natural hazards as floods, droughts, windstorms, loss of biodiversity carry the risk of serious social and economic losses in settlements due to climate change (Altun, 2021). In addition, biological disasters also significantly affect human life. Outbreaks, insect infestations, forest fires, erosion are classified as biological disasters (Afad, 2021).

On the other hand, Covid-19 (Coronavirus-19) is an example of a global pandemic that started out from China in December 2019 and spread all over the world in a very short time. There are still many unknown features about the identity of this virus. The epidemic spread rapidly around the world, shaking the global economy, and causing a large number of deaths. The Covid-19 pandemic has gained a global dimension and the experiences gained from previous virus outbreaks as Sars or Mers have not been sufficient. The disaster management and health systems have been paralyzed, even in developed countries. This virus attack is not like an earthquake, typhoon, flood, war, and terror. This virus epidemic, which is not dependent on borders and geography, can be described as a natural disaster. However, it has turned into a man-made disaster due to insufficient precautions and human-to-human transmission. In other words, it has gained the identity of "hybrid disaster" (Eyidoğan, 2020).

The planned development of cities is the priority issue of sustainable economic development, and the sustainable urbanization model includes the reduction of physical, natural, social, historical, cultural, and economic damages of disaster. Disaster risks increase due to effects such as increasing urban densities, climate change and degradation of the natural environment, loss of life, and physical and material damage occurring in the event of a major disaster. These damage distributions depend on the natural structure characteristics of the city, inadequate planning, non-zoned building stock, and low construction quality, as well as the vulnerability and disaster preparedness of local governments, private and public sectors. Disaster resilience is provided through risk management, planning, and strategic capacity-building activities (Okay, 2018).

2.2.2. Urban Resilience in Small Towns

The city is a heterogeneous structure with regional or international relations networks where economic activities such as industry, trade, and services are carried out and the population is socially stratified, concentrated in an area with defined borders (Keskin, 2012). Cities show more diversity than other settlement types in terms of population, economic activities, land use, cultural, social, and other characteristics. This diversity presents a unique appearance depending on the area where the city was founded from past to present (Özür, 2016).

The most obvious effects of globalization are felt in cities. With globalization, cities are becoming more and more similar to each other in many areas such as economic, social, and political day by day. In particular, it is seen that cities are becoming more and more similar to each other due to similar structuring trends experienced in most of the world's cities. Buildings produced using similar designs and the same building materials not only make world cities similar but also destroy urban identities determined by local authenticities (Keskin, 2012). It is seen as an important problem of recent years that the uniqueness that gives the city a characteristic feature will disappear with globalization (Özür, 2016).

Small towns are an important issue to be addressed at this point. In Europe as a whole, small towns are home to a fifth of the population. Also, 25 percent of the world's population live in urban areas where a population of 50.000 or less (United Nations, 2020). Small towns in the world accelerated by globalization are places of refuge

where residents think globally and act locally (Knox and Meyer, 2018). As a reaction to this monotony and the loss of spatial differences and cultural characteristics, different movements started to appear including, Slow Economics, Slow Cities. Among these movements, Cittaslow has been an important framework that might be seen as providing increased resilience of small towns (Nilsson et al., 2011). Lewis and Pink discuss the concept of resilience from the framework of evolutionary resilience through the Australian Slow City (Lewis and Pink, 2014).

In contrast, Massey argues that local space and urbanization trends cannot be defined independently of the global (Massey, 2005). Therefore, in the case of slow cities, it is necessary to examine how the global relates to the local in order to achieve identity and authenticity. This type of interaction is inevitable. Because of this, slow city governments need to explore how they can improve the well-being and quality of life of their activists and residents. In other words, the resilience of slow cities is an important issue (Gündüz et al., 2016).

At this point, it will be useful to explain the concept of Cittaslow. Cittaslow (Slow Cities) started in Italy (Nilson et al., 2011). The characteristics of the slow cities consist of 72 criteria collected under 8 main headings. In order to become a Cittaslow member, it is necessary to have a population of less than 50.000, to get at least 50 points from the specified criteria, and to achieve half of the criteria. Today, 252 cities in 30 countries around the world are members of this movement. Also, 17 cities in Turkey are included in this movement. Seferihisar was the first city to join this movement in Turkey, so it is considered the capital of Cittaslow movement. Seferihisar, which was awarded the title of Cittaslow in 2009, is a coastal city where located within the borders of İzmir province of the Aegean Region. Preservation of local identity is crucially important for this city. Many projects and studies are carried out in various fields such as local organic agriculture in the city, protection of civil architecture, use of alternative energy sources, tourism, and employment development within the scope of the slow city. The urban population has also increased gradually parallel to these developments (Ünal et al., 2019).

The Cittaslow movement is a movement that defends local development, local values, and originality in all areas of economic, social, and cultural life and fights against the passion for speed arising from consumption patterns that developed by globalization (Güven, 2011). The Cittaslow movement rejects globalization that all people's

economic, cultural, and social interaction are inevitable, and it prevents the destruction of the local and local culture which remains in the overwhelming power of globalization (Özmen et al., 2017). Also, it contributes to increasing and spreading the quality of urban life by preserving local values (Çakar, 2016). The critical point of the Cittaslow approach is its focus on capacity building, valuing the specificity of localities, and integrating their existing strengths. As will be elaborated in the next chapter, slow cities are not isolated from external changes. Their governments determine the change of these cities, but they do so in a way that preserves their uniqueness (Gündüz et al., 2016). However, although the Cittaslow movement provided an escape from homogenized globalization processes, it was sensitive to approaches such as global branding, heritage tourism appeal, the power of wealthy groups, and place marketing. Therefore, slow cities are at the center of global and local connectivity. In this global and local connection, it is important to understand how slow cities are resilient and progressive (Gündüz et al., 2016).

At this point, the concept of resilience draws attention. The concept of resilience has quickly become a key point in the literature in rural areas where geographers often work, and the concept has replaced sustainability (Lewis and Pink, 2014). While sustainability aims to leave a better world for future generations, resilience is seen more as an immediate response to a situation. This may be why the concept of resilience is closely related to the disaster. As disaster risk increases, many cities must deal with the challenges of vulnerability (Setyono et al., 2018). Resilience is about reducing risk, providing immediate response, and working on a rapid recovery afterward (Amaratunga and Haigh, 2010). Earthquakes, floods, tsunamis, hurricanes, and even pandemics can have serious consequences and negatively affect infrastructure and the economy. Resilience-based planning strategies can mitigate the impact of disasters and crises and reduce the vulnerability of cities (Öner and Özener, 2022). In responding to the challenges, the concept of urban resilience has been applied as an important part of existing development policies in many countries (Setyono et al., 2018). Some cities and towns have effectively protected the quality of life of their residents after a shock, while others have been less successful. Cities that can regain the quality of life before the shock experience is defined as resilient societies. Shocks affect cities of all sizes, but small towns are more vulnerable to dealing with them (Galantini, 2019). However, within the framework of the concept of urban resilience,

more attention has been paid to metropolitan or large urban areas and the problems faced by small cities have been ignored. In fact, the problems faced by small cities, especially in coastal areas, are as important as large cities or metropolitan areas (Setyono et al., 2018) The Cittaslow movement provides an ideal example for thinking through multidimensional ground relations and practicing resilience (Lewis and Pink, 2014). The resilience of slow cities is about how slow city governments and activists can achieve or improve the well-being and quality of life in their communities. (Gündüz et al., 2016). On the other hand, small cities and towns are important places for city dwellers, as half of the world's urban population resides (Tacoli, 2006). Factors affecting the urban resilience of small cities include local governments, the presence of large cities adjacent to small towns, location, and spatial analysis (Setyono et al., 2018).

CHAPTER 3: PANDEMICS IN THE CITY

The wars, epidemics, medical developments, trade, and urban growth perspectives have played a significant role in the formation and maintenance of cities. Although cities generally provide the opportunity to develop the potential of people and raise their living standards, still living in the city can reduce their well-being in various situations. In the last century, the population has shifted from rural areas to urban areas with industrialization and urban settlements have become areas where the population is most concentrated. The rapidly increasing urban population in the world causes rapid consumption of resources and this brings environmental problems with it. Environmental problems reduce the quality of people's lives and cause the environment to become unresponsive to people's needs (Galantini, 2019). Also, the concentration of the population in cities and the activities carried out create suitable conditions for the emergence of biological hazards that harm human health. If the processes related to biological hazards are not managed, outbreaks like pandemics and epidemics can occur. In the historical process, different outbreaks have caused significant changes in cities (Tuğaç, 2020).

Since the start of urbanization, the probability of experiencing a pandemic is increasing day by day and a pandemic is the worst scenario for the world in the field of infectious diseases. In the hunter-gatherer days of humanity, there were contagious diseases, but the transition to agricultural life created communities that made epidemics and pandemics more possible (History, 2020). Coronavirus is not the first pandemic in the world, there have been other pandemics as Sars, Ebola, Spanish flu, Swine flu and millions of people died in these pandemics (Elgheznawy and Eltarabily, 2020). Although the idea of communities living together while settlements are being formed has been attractive to humanity due to security and social concerns, dense settlement poses a silent threat to humanity (Yalçın, 2021). On the other hand, pandemics do not only threaten human health, but also have economic, social, political, technological, and environmental consequences for countries, significantly impacting and testing the resilience of urban areas (Elgheznawy and Eltarabily, 2020). In the historical process, successive pandemics destroyed societies, played an active role in the results of wars, and also played a major role in the development of social sciences and medicine,

contributing to the development of cities and the change of the built environment (Yalçın, 2021).

Firstly, the Black Death, also known as the Black Plague, is known as the most harmful pandemic ever recorded in human history. The Black Plague caused the deaths of a third of Europeans in the 14th century. The plague was transported to port cities by fleas living on rats on ships, and millions of mice that spread everywhere caused the plague to spread rapidly, and deaths increased because cities could not be kept clean (Akbulut, 2013). So, the Black Plague pandemic is one of the important situations that shows the relationship between nature and humans in the case of infectious diseases (Elgheznawy and Eltarabily, 2020). Secondly, during the 19th century, a series of Cholera pandemic occurred around the world making city life miserable. In London in 1850, the main cause of the Cholera pandemic was the mixing of wastewater and drinking water (Tekeli, 2020). The pandemic had a huge impact on the management of waste on the streets in terms of improving the urban design of the city. Also, progress in infrastructure design has been a major factor in the battle with the Cholera pandemic (Elgheznawy and Eltarabily, 2020). Furthermore, Spanish flu occurred between 1918-1920 and within two years it made a third of the world's population sick, causing an estimated 20 to 50 million deaths (Duarte, 2020). In fact, before the Spanish flu pandemic, urbanization has increased around the world and public spaces have been filled with people in cities due to the urban-centric industrial and technological revolution taking place. However, the course of the pandemic process slowed down the rate of spread of the disease by slowing down urban growth and limiting public life. In addition, instead of using public transportation, walks were made in the streets that were not crowded and house quarantines were applied (Elgheznawy and Eltarabily, 2020). Similar situations have been observed in the Covid-19 pandemic in 2020. In the historical process and today, pandemics have caused changes in the cities and social behavior of citizens, and citizen awareness is considered an important factor in dealing with the pandemic. It is known that important pandemic diseases and inventions that deeply affect urban life have a great influence on the development and reconstruction of cities. Pandemic processes are seen as harbingers of restructuring in terms of urban planning (Dönmez, 2020).

The World Health Organization (WHO) China Country Office encountered a pneumonia case of unknown etiology in Wuhan, China's Hubei province, on

December 31, 2019. On January 7, 2020, it was reported that the agent is a new type of coronavirus (2019-nCoV) that has not been seen in humans before. Later, the name of this new type of coronavirus 2019-nCoV disease was accepted as Covid-19. The Covid-19 disease started to spread all over the world as of March 11, 2020, at an alarming rate and is continuing. This deadly disease has been recognized as a worldwide pandemic by the State Health Organization (World Health Organization, 2020).

Covid 19 pandemic has deeply affected our lives over time, causing us to develop new lifestyles. In this process, time-space-technology have formed the basis for shaping new lifestyles. Many problems such as being unable to leave home and continue formal education activities have emerged with the conceptualization of social distance. On the other hand, shopping without leaving home with the active use of information and communication technologies, distance education or home office opportunities reduce the frequency of use of urban space (Karlı and Çelikyay, 2020). The social and spatial proximity that triggers the transmission is in an inverse relationship with the disease. The increase in spatial proximity decreases the rate of diseases spread to an important extent. Therefore, a pandemic can be defined as a socio-spatial process (Tekeli, 2020).

On the other hand, the pandemic mostly affected the metropolises, which are the population concentration areas. In metropolitan areas, the fact that a large number of people must work, get services to meet their most basic needs, or meet to socialize has inevitably brought people together and increased the risk of contagion, causing the pandemic spread. Being affected by the pandemic in metropolitan areas creates a situation that differs at every scale. There is a need for different interventions at different scales from the metropolitan area to the district, the neighborhood, the street, and the building (Güller et al., 2020) Furthermore, there is a population density in cities due to reasons such as the increase in the world population, the advancement of medicine, and the decrease in death rates and migration (Özgür, 20117). The increase in population density causes decreasing the area of use per capita in urban areas.

During the pandemic process, people can only use their personal space. They stay away from common areas so that the pandemic does not spread. City designs need to be restructured to protect green spaces because this situation offers a more livable environment for people. The necessary environment should be made possible by the restructuring of cities (United Nations, 2020). In the conference titled “After the

Coivd-19 Pandemic: Social Risks and Opportunities in Cities", Hasan Suver (Turkey Environment and Urbanism deputy minister) emphasized the need for new buildings and cities that produce their energy and the need to strengthen infrastructures by redesigning all kinds of architecture against epidemics and pandemics (TBB, 2020). For this reason, it is mentioned that studies to increase urban resilience during the pandemic process.

3.1. Changing needs of residents from the built environment and urban space in Covid-19

The rapid spread of the Covid 19 pandemic around the world has affected people living in cities more than rural areas. The spread of Covid-19 by contact has been especially higher in cities with a large population level. With the increase in the number of coronavirus cases in Turkey, the home quarantine process started on April 2, 2020. Users who want to spend the quarantine period in summer resorts or second houses in rural areas have settled in the regions where their second houses are located. The idea of living in a second house has started to appeal to users because many institutions have switched to the remote working system and the schools have been decided to continue with distance education (Emekli and Zoğal, 2020). The fact that second homes are mostly located in summer resorts and that they are thought to be more suitable for social isolation has been effective in these preferences of individuals. Especially, users living in apartments in big cities have chosen this way to minimize social contact (Yalçın, 2021). In the fight against the pandemic in cities, it is of great importance to eliminate inequalities and development deficiencies in the society, to strengthen the capacities of local actors, especially local governments, and to build future-ready, green, resilient, and inclusive cities in terms of protecting the urban population. In this regard, the built environment and use of urban space become a crucial framework to study (Çam, 2020).

The insufficiency of many measures taken in cities due to Covid-19 has revealed the necessity of changing and improving the existing structure of cities in terms of the urban built environment. Covid-19 showed more clearly that urban design and planning should be suitable for all conditions and should be in a flexible structure that can be changed when necessary. Due to Covid 19, possible changes related to the urban built environment have been summarized as follows: According to the published news.

- Green areas should be increased in cities.
- Cities should be reschedulable in case of a pandemic or a possible unexpected situation.
- Cities need to eliminate their dependence on foreign sources by producing basic food products themselves.
- Especially the new city designs should be conducted considering the possible pandemic risks (BBC City, 2020).

All of these items are related to the increasing urban resilience due to the event of a disaster. The Covid-19 pandemic is a "natural disaster" that is accepted as an unexcepted result of humanity's environmental damage, and it affects the whole world. Especially, the Covid-19 pandemic makes the need to protect nature even more urgent as mentioned in the EU Biodiversity Strategy for 2030. Also, in this strategy, the importance of nature for humans was emphasized (Hermosa et al., 2022). Therefore, the Covid-19 pandemic, which is effective all over the world, has led to some changes in people's preferences. Before the pandemic, citizens who gave importance to living in crowded places and close to the city center now preferred places that are far from the city, intertwined with nature and calm (İHA, 2020). The Covid-19 process reveals the need for people to have large and green spaces. During this process, people once again learned that nature must remain intact.

On the other hand, the Covid-19 pandemics have caused the usual balance of social life to deteriorate. Since it is a virus transmitted by contact, people must live with limitations in the city space and have to establish physical distance from each other. According to this new situation, some new normals have emerged in people's lives. At this point, urban density, street design, public transportation, public space, parks& green areas, housing inequality, building design, useful technologies, and smart cities are important criteria that should be handled according to the new normal (Balaban, 2020).

Firstly, urban density is one of the key factors that affect the spread of a pandemic in the city and urban design (Gandy, 1999). Theoretically, urban density increases the individual's contact rate and thus, increases the rate at which the virus spreads (Barr and Tassier, 2020). However, according to the World Bank data, there is not an important relationship between urban density and virus spread rate. The data shows

that density is not the only factor. The crowd is a real factor in the spread of the virus, but the density of people in confined spaces is important rather than population density. On the other hand, cities are economic centers that support high-quality infrastructure. Therefore, cities are better suited to benefit people in terms of emergency response time, better quality hospital staff, and health resources. As a result, urban density should be considered as an opportunity rather than a natural danger and urban resilience must use this intensity as a force over public health (Zhong and Teirlinck, 2020).

Secondly, streets must be structured so that people can move safely at a time when physical distance must be maintained to protect public health (Sadik-Khan, 2020). Street design is one of the most important elements at this point. Due to the importance of social distance, walkways and bicycle paths that can create wide gaps between users are very important for human health. In the Covid-19 process, many streets have been redesigned. While designing, pedestrian areas were created by considering public health (Sohrabi et al., 2020).

Furthermore, public transport is the backbone of cities and provides an essential service for cities to stay on the move, especially in times of pandemics. Therefore, the main goal for public transport operators should be to provide minimum services (Mezghani, 2020).

The city planner Oflaz emphasizes 6 important points regarding what needs to be done in cities after Covid-19 (Oflaz, 2020).

- Population density and access to basic humanitarian services: emphasized the need for a balance between population density and access to basic services in cities.
- The reflection of the changing working conditions on the space: It has been stated that remote working can become widespread now or changes can be made in the working conditions so that the office conditions are multi-compartment and ventilation systems are good.
- Reflection of changing housing structures to the space: It is necessary to develop opportunities that offer the opportunity to spend time outdoors, such as balconies and terraces, in the same way, it is necessary to create environments that will allow different activities.

- The importance of green and open spaces: People who want to escape from the overwhelming effects of cities generally prefer places like green areas, rivers, or lakes that make rest and give people peace. Therefore, green areas that can be used as a gathering area in cities should be increased.
- The importance of transportation planning: In pandemic days when people have difficulty in accessing schools, hospitals, and public service buildings, such service buildings should be located smaller but more widely. Thus, it will be possible to provide people with access to these areas without any risk of transportation problems.
- The importance of upper-scale planning: economic, transportation systems, sectoral, food, service, and energy supply should be considered and planned as a whole with the surrounding settlements.

By utilizing the concepts mentioned in the literature review and Oflaz's (2020) categories, in this thesis, I employ a 6-tier framework to look at the changing needs of residents and urban space during Covid-19. This framework includes the change of work habits, change of education delivery, change of shopping habits, the impact of Covid-19 on transportation, the impact of Covid-19 on dwelling concept, the impact of Covid-19 on open spaces. These six elements are seen as the most important elements to examine the changes in the built environment concerning changing needs of the residents during the Covid-19 pandemic. This framework has been utilized in the preparation of the questionnaire on Seferihisar, which will be explained in the next chapter.

3.1.1 Change of Work Habits

Since the onset of Covid-19, nearly half of the world's population has remained in-home quarantine. This situation seriously affects working life. Many changes have occurred in all areas of life with innovations such as the closure of non-essential workplaces, the calls of state institutions to employees to stay at home, the closing of schools, and the start of distance education, social distance, video conferences, and differentiation of employee relations. As a result, business models in the world were organized rapidly to keep up with this change (Forbes, 2020).

Flexible working models were the ones that were discussed in the world before the pandemic and even applied by some innovative companies, but the pandemic

accelerated this transformation. Some studies reveal that work that does not require a specific physical space or is carried out in more flexible spaces might have an efficiency-increasing effect in most cases (Başbuğ, 2020). Many institutions have decided to work from home in order to reduce the effect of the pandemic by staying at home and to protect the health of employees (VBenzeri, 2020). Since March 2020, global companies around the world such as Google, Microsoft, Twitter, Hitachi, Apple, Amazon, Chevron, Salesforce, Spotify have started working from home partially or completely to slow the spread of the Covid-19 outbreak and ensure the safety of their employees (Bilginoğlu, 2020).

Furthermore, the pandemic has changed the way of working and the office layout we are used to with the effect of working from home. Open office systems, common areas, and social areas, which have been shaping the working spaces for a while, especially the shared offices that can be used by many people in different periods, have become the places we have to avoid after the Covid-19 process (Şener, 2020).

Changes have been made on issues such as density, separation, geometry, spatial circulation, and technology for the safety of work areas for employees who must work from the office (VBenzeri, 2020).

- **Density:** *Personal distance, Number of Persons and Employee Connection*
- **Separation*:*** *Panels, Barriers*
- **Geometry:** *Furniture Configuration, Circulation, Relationship Between Spaces*
- **Material:** *Sustainable, Durable, Easy to Clean*
- **Technology:** *Ventilation Systems, Contactless, and Virtual Work Environments*

Figure 2. New office design according to the new normal in offices

(Source: VBenzeri, 2020)

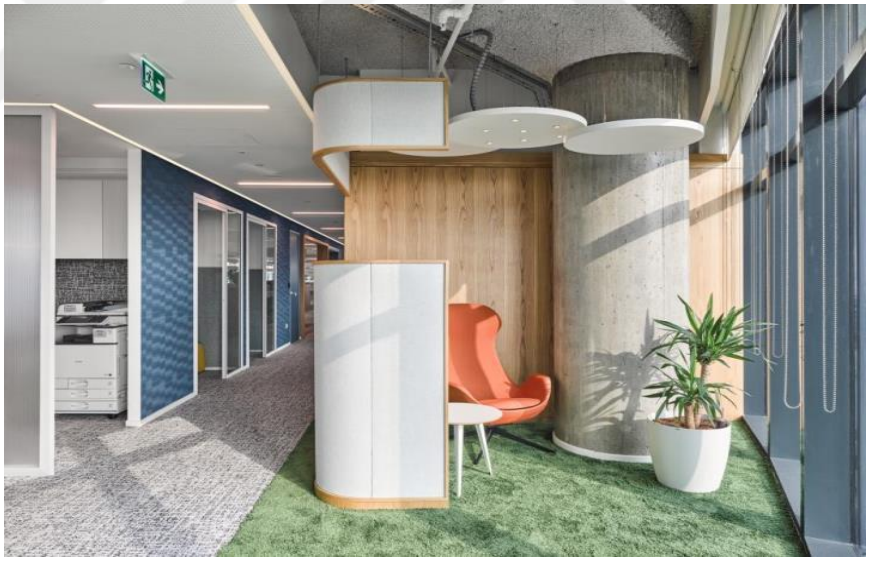

Figure 3. The corner design in offices according to the new normal

(Source: VBenzeri, 2020)

Figure 4. New office design according to the new normal in offices

(Source: OsoMimarlik, 2020)

3.1.2 Change of Education Delivery

There have been many developments in digitalization in learning environments before and after the Covid-19 pandemic. These developments and the compulsory changes in the education and training process have affected students, teachers, and all education stakeholders (Işık and Bahat, 2021). The Covid-19 which caused a global crisis has led to big changes in the field of education like many other fields. Formal education processes have undergone a rapid change and face-to-face education activities have been stopped quickly. To continue the educational activities, it has become necessary to develop the existing distance education activities and to make more education applications available to the students through distance education (Tanhan and Özok, 2020). It is seen that the inequality of opportunity experienced with distance education has deepened even more. Differences between homes as well as differences in opportunities and learning between schools are becoming visible. The learning environment in which students who attend classes with a computer or tablet or who do not have internet access live at home includes very different features (Aktaş, 2020).

At this point, in Turkey's current reality, there are four very important elements in digitalization in education. These are;

- Technological infrastructure,
- Developing virtual education skills of educations and increasing their capacities,
- Producing effective virtual training content
- Production of effective assessment and evaluation systems of online/ virtual education (Arkan, 2020).

In order for students to benefit from distance education at the maximum level, it is the most important point to completely satisfy the infrastructure requirements. First of all, basic requirements should be provided in terms of hardware. Today, a high-speed internet connection is required to participate in all distance education services, including video conferencing systems (Doğrukök, 2021).

On the other hand, the increase in distance education and working systems has increased the interest in small towns, especially where people have second homes. 12 months of life started in summer resort towns with referring to the beginning of the reverse migration. Some families decided to stay in these small towns. Families who settled in small cities started to look for the quality of education they are used to in these regions. Therefore, new campus investments are planned for the population that will be permanent in small towns in the coming years (Kadüker, 2020).

3.1.3 Change of Shopping Habits

One of the behaviors most affected by the pandemic process has been shopping habits. In the Covid-19 process, people took care to stay away from interacting with each other. Consumer habits started to change due to the necessities brought by their limitation (Demirdöğmez, 2020). Indoor shopping centers have lost their popularity due to hygienic concerns and social distance, and open shopping centers and street stores have begun to be preferred (Gökkoyun, 2020).

Furthermore, there have also been non-spatial changes in consumer habits. The cash is not used because it is unhygienic, online shopping can be made because it is not possible to go to shopping centers and contactless payments are made because it cannot be touched anywhere. Especially home stay practice has led people to e-commerce within the scope of the precautions. In this process, people started to use digital media instead of traditional markets. People who prefer to shop digitally whenever possible have increased the traffic of online food markets by more than 100 percent

(Demirdöğmez et al., 2020) According to the news of the Anadolu Agency, the rate of people who shop online has reached 80% (Özekinci, 2020).

On the other hand, traditional marketplaces are risky in terms of Covid-19 transmission, as they are places of mass gathering. Therefore, various measures have been taken to ensure the social distance rule in the traditional marketplace. The new planning of Adana Metropolitan Municipality for the traditional marketplace is one of the most important examples of this issue. The main purpose of the project is to control the density of people in the traditional markets and to provide a healthy circulation that is compatible with social distance during the pandemic days. Güzelyalı traditional market in the Çukurova district was determined as a pilot practice area. According to the current plan, the locations of the market vendors and stalls have been determined with two meters between them. Also, a grid model is placed where people can move in harmony with social distancing. Social distance boxes, the smallest of which is one square meter, were created with the planned grid model. By determining the boxes where the sellers and shoppers in the market should and should not stop, a circulation was created that allows people to move at least one meter from each other (Aynal, 2020).

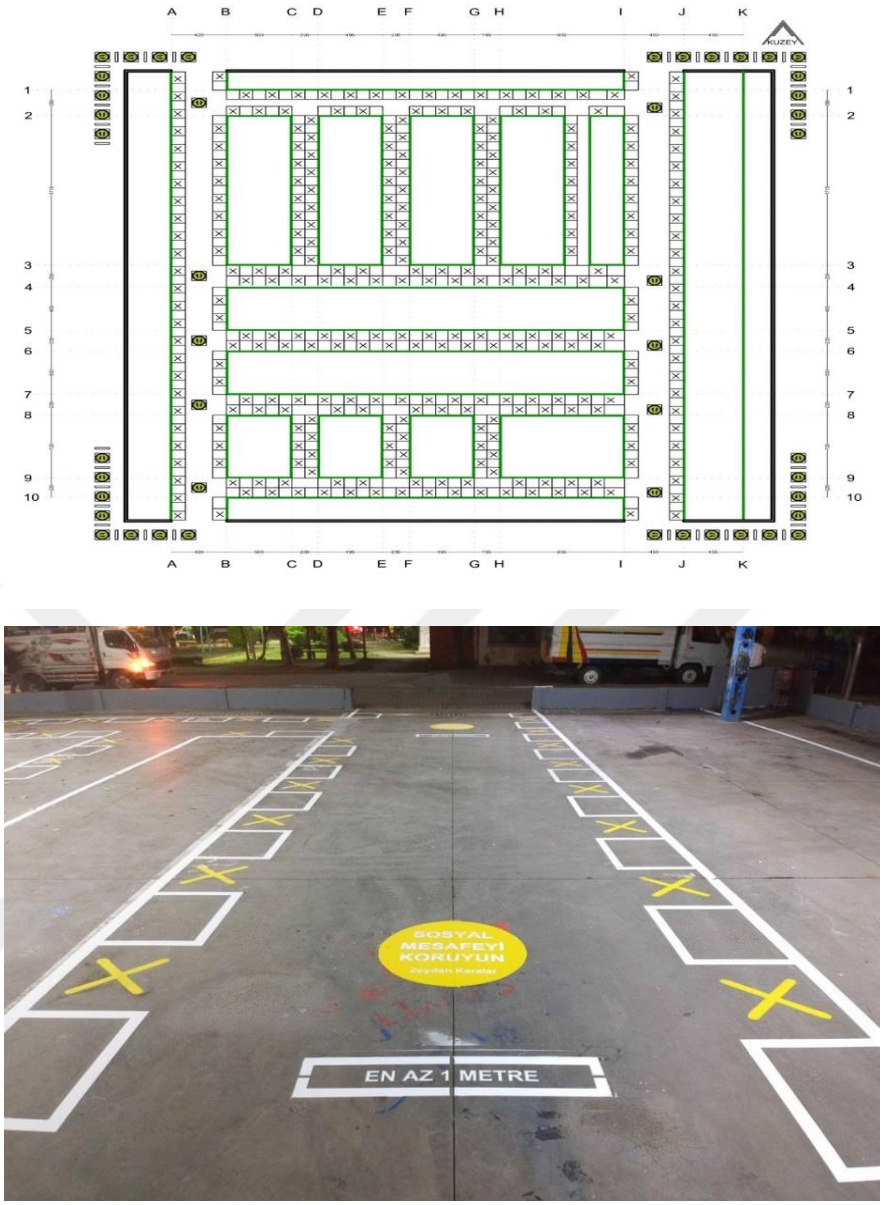

Figure 5. Adana Metropolitan Municipality Traditional Market Design with New Normal (Source: Aynal, 2020)

3.1.4. Impact of Covid-19 on Transportation

The pandemic has also caused significant transformations in the field of transportation. Working and distance education has visibly reduced the traffic load, especially in big cities. It has also been found to be effective in reducing air pollution (Skiriene and Stasiškiene, 2021).

On the other hand, public transportation vehicles, which are places where the spread potential of the virus is high, are described as risky places (Yemişçioğlu and Çivici, 2020) Therefore, vehicle owners took care to use their own vehicles to avoid crowded environments. However, this situation caused an increase in traffic (Rha Ajans, 2020). According to the news published by the Anadolu Agency, the traffic density in Istanbul increased significantly during the hours when the curfew was imposed due to Covid 19 (Tokgöz et al., 2021). With the increasing traffic, air pollution and greenhouse gas emissions also increase, thus experiencing negative health and social side effects. Concerns about the user density and hygienic conditions in public vehicles have led people to use alternative transportation solutions. These are mainly focused on private vehicle use, pedestrian transportation, and bicycle use (Rosés et al., 2020).

Firstly, walking is one of the simplest sustainable transportation solutions as the most beneficial means of transportation for both human health and environmental health (Genç and Akkoç, 2020). A social distancing system has been established in the city of Paris to help pedestrians navigate the streets safely. The wave-themed sign system is influenced by the coat of arms of Paris, which depicts a ship sailing on the water and the symbol of the Seine River. Signs are used for a variety of functions, such as directing people to different buildings, arranging the queue outside shopping malls, and of course reminding people on the streets that everyone should be within 1 meter of each other (Karakoç, 2020).

Figure 6.The Wave Themed Signs in the streets of Paris (Source: Karakoç, 2020)

Secondly, the bicycle is a transportation method that increasing day by day during the pandemic process. For example, 2.3 million bicycle rides were made during quarantine in Wuhan, China. Thus, it has been observed that the confidence in the bicycle has increased (Genç and Akkoç, 2020). In Rome, options such as giving priority to transportation by bicycle and electric scooters were studied to prevent the cities from being occupied by cars. The bicycle is seen as the best means of transportation that can both provide distance between people and contribute to reducing air pollution (Pinzuti, 2019). In this process, 'pop-up' bike lanes, most of which have temporary status, started to be built in many cities around the world to increase and encourage cycling (Erturan, 2020). Pop-up bike paths are roads created with the help of markings and separator pontoons on the existing road (Demirtaş, 2020). Many cities such as Mexico City, Bogota, Milan, Berlin, Barcelona, Seattle, Rome, New York, Toronto, and Paris have started to create new bike paths during the pandemic process. Bogota has created an additional 76 km of bike paths by separating one of the lanes for bicycles on many routes with vehicular traffic. In addition, it increased the urban bicycle network to a total of 626 km. Milan and Seattle began making arrangements to divide 35 km of roadways only into non-motorized modes of transport, such as pedestrian and bicycle transport. Brussels has prioritized pedestrians and cyclists throughout the city center and limiting vehicular traffic to 20 km/h. Furthermore, Paris aimed at one of the most striking changes. Authorities announced that they will create a 650 km bicycle network for the entire city (Erturan, 2020).

Figure 7. New bike lanes along the Rue de Rivoli in Paris (Source: Robinson, 2020)

Figure 8. Bicycle Path in Berlin (Source: Pinzuti, 2019)

Furthermore, some studies have been started to increase bicycle transportation during the pandemic period in Turkey. The first pop-up bicycle path of İstanbul was implemented in Bağdat Street. Also, in Ankara, the first 900-meter part of the bicycle network that planned was built (Cyclist Türkiye, 2020). Furthermore, Izmir Metropolitan Municipality has also accelerated bicycle path projects to prevent the traffic density caused by the decrease in the use of public transportation during the normalization process. Izmir Metropolitan Municipality has also started projects of "shared bike lanes" and "bike lanes" which can be put into practice more quickly that together with the "separated bike lanes". Thus, it was aimed to reduce traffic density

by increasing bicycle transportation opportunities. Izmir Metropolitan Municipality was selected as the leading city in the EU-supported “Come on Turkey Cycling” project of WRI Turkey Sustainable Cities (İzmir Büyükşehir Belediyesi , 2020).

Figure 9. The first pop-up bike path of Istanbul (Source: Cyclist Türkiye, 2020)

Figure 10. A bike path in İzmir (Source : İzmir Büyükşehir Belediyesi, 2020)

On the other hand, the "15 Minute City" concept, which has been planned with the goal of a more livable city in Paris since 2014, is one of the applications that continue to develop during the pandemic process (Pınarcıoğlu and Kanbak, 2020). The idea of “15 minutes” is an urban planning approach that aims to reach daily basic needs within the shortest distance (Öztaş, 2020). 15-minute cities are cities of living, people-

friendly, full, and connected neighborhoods, and everyone in the area can meet most of their needs with a short walk or bike ride (Ünlü, 2021). Applications such as distance education and working from home during the COVID-19 pandemic also supported this concept. Within the scope of the concept, a city structure is supported by supporting local shops, and commercial functions. In order to create 15-minute cities, it is necessary to redesign the streets and public spaces in the neighborhoods. This situation brings up the concept of mobility, in which there are transportation networks that will increase the use of vehicles such as walking or bicycles, and the dependence on automobiles is reduced. Especially during the pandemic process, the critical importance of creating healthy spaces, keeping city residents safe, controlling local outbreaks, and living on a neighborhood scale has been proven (Özcan and Hamamcıoğlu, 2021).

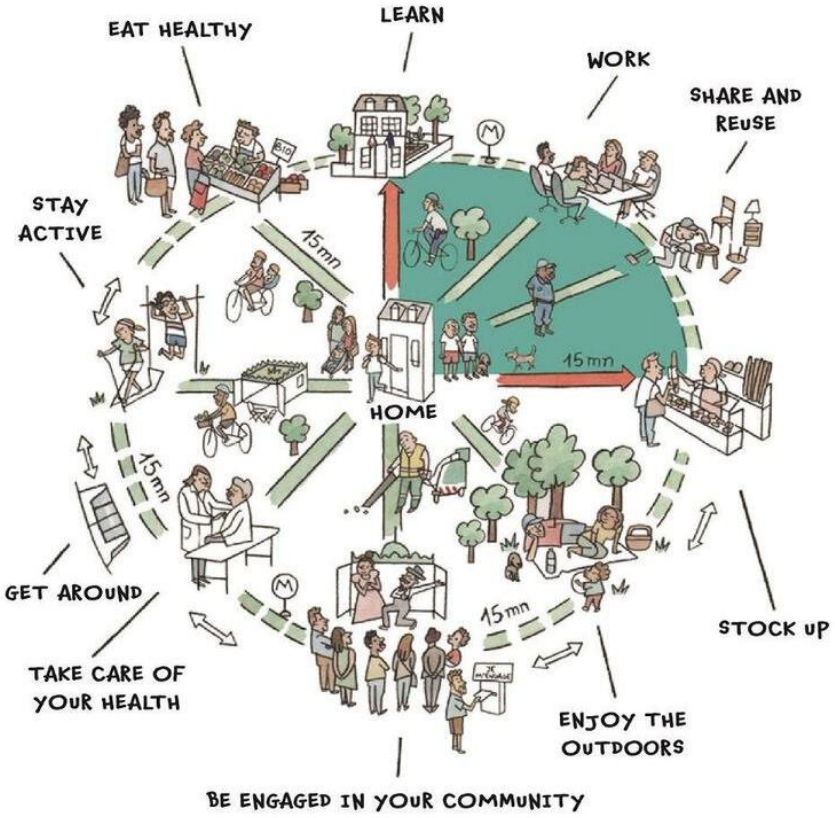

Figure 11. The concept of 15 minutes city in Paris (Source: Archdaily, 2021)

3.1.5. Impact of Covid-19 on Dwelling Concept

According to TDK, the concept of a house is generally defined as “a structure built in such a way that a single-family can live”. It is also seen to mean "the place where a person or family lives, residence, household" (TDK, 2021). The word of home also carries abstract and emotional meanings such as home and family as well as to its physical meaning such as the place to live (Pekpostalcı, 2009). Home is a place where we shelter, where we feel safe and even where we define ourselves from time to time (Çakır, 2020). Home has an important meaning in all societies. During the pandemic period, staying at home has been the most effective way to prevent disease and reduce the spread of the virus. This situation has caused the houses to gain a new meaning and to load new functions. As seen in Figure 12, all activities such as spending time with family, doing sports, shopping, spending time with friends, getting education and working have been moved to homes for all individuals with the slogan of “Life Fit at Home”. This situation has caused all these actions taking place in homes to be intertwined and mixed with each other. It is thought that the lack of working environments designed in homes so that education and working life can take place at the same time in the same house reveals inefficiencies in business and education life (Turna and Usta, 2021)

Figure 12. Functions of the House After the Covid-19 Pandemic (Source: created by the author)

The lifestyle that has changed with the call to "stay at home" points to a new process for the whole world. A new life order in which everything happens remotely has started and there has been a change in the concept of residential use. People wanted to have more livable homes because they spend most of their time in their homes (Candan, 2020; Şolt, 2021). The concepts such as windows and balconies, which are the spatiality of communicating with the outside are reconsidered with the pandemic

process (Candan, 2020). Balconies which can be defined as the outer extension of the houses were used for purposes such as storage and laundry drying area before Covid-19. But, with the Covid-19 pandemic, balconies have become the most precious areas of the house in apartments (Ytong , 2020). So, the use of the balcony with its own function has increased during the pandemic process (Candan, 2020). Balconies have been spaces that symbolize the new form of freedom during the pandemic process. In addition, the balcony has started to mean accepting social isolation without feeling stuck and enjoying the fresh air without worrying about catching the virus (Ytong , 2020). For example, in New York, people went out to their balconies and gave a ceremony of applause at 7 o'clock evert night to motivate each other. Thus, community awareness is created thanks to a physical place and people are motivated against the pandemic. Also, balcony concerts were given all over the world and in Germany, a trainer was seen giving pilates lessons to her neighbors from the balcony. All this shows that although we are physically separate from the external public space, the house has been seen as a private space shaped by the relationships established with it (Ergüney, 2020).

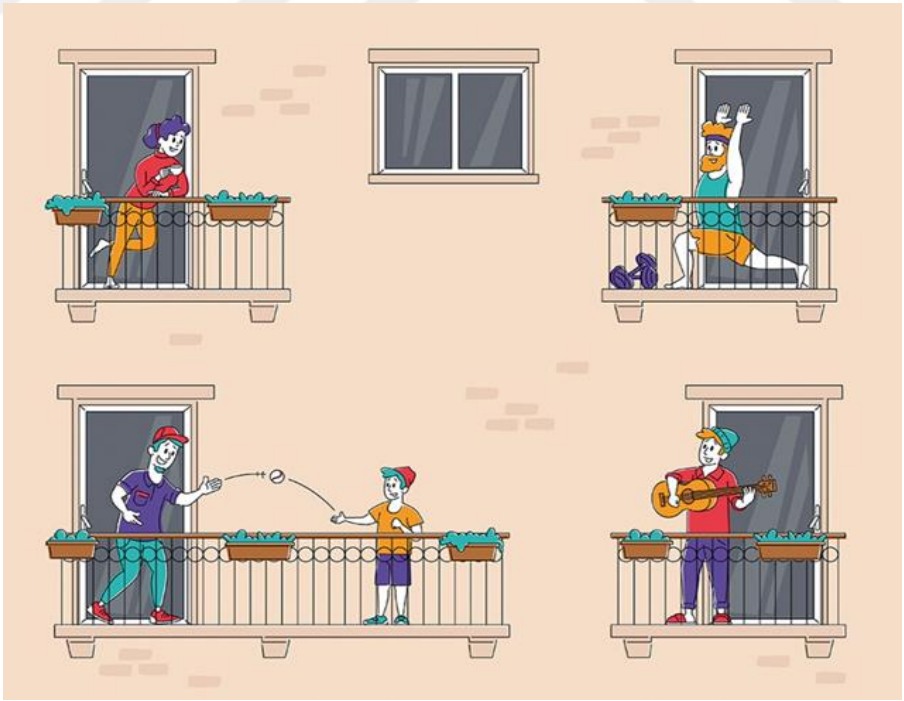

Figure 13. Changing functions of the balcony during the Covid-19 process

(Source: Ytong, 2020)

On the other hand, the interest in apartments, which became widespread in cities, decreased with the pandemic process. The main reason for this is the use of common areas with many contact surfaces such as elevators in apartment life. The use of common areas has increased the anxiety level of people who are already worried due to the epidemic. However, individuals who spend more time at home have sought a welfare environment during quarantine processes. Therefore, the demand for detached houses with more spacious gardens and detached houses away from the city has increased (Candan, 2020; Çetinkaya, 2021). Many people have chosen to spend the pandemic period at their summer house. However, many renovations as heating system, conservatory, insulation were made because the summer houses were not suitable for the winter season and regular living conditions. Especially in terms of heating system, the demand for heat pumps increased by 70 percent and the demand for fireplaces and air conditioners increased by 20 percent (Günel, 2020).

3.1.6. Covid-19 and open spaces

The Covid-19 pandemic has a significant impact on everyday life. One of the discussions on the public area during the pandemic is the work on the open and green space of the city which allows the user to be related to nature. Maintaining social distance is important in these studies (Koca and Tutal, 2021).

The Prencht that Austria-based architectural practice studio has designed a spiral garden with high fences to keep social distance and allow people to be outside. The Park consists of multiple routes divided by continuous fences of 90 cm width. (See Figure 13) Park has a design principle in which the entrance and exit are determined by a network system. This system has a working order that adopts social distance rules. The project is based on the free movement of users without physical contact. Although the fences visually separate people, they are designed in such a way that the footsteps of people walking around with pebbles laid on the floor can be heard and maintain physical distance (Ravenscroft, 2020).

Figure 14.Parc De La Distance (Source: Ravenscroft, 2020)

On the other hand, suggestions for park designs have started to be developed during the pandemic. New design ideas have been developed to keep citizens safe but together again in public space (Koca and Tutal, 2021). As an example, a series of social distancing circles have been drawn on the lawn of Domino Park in Brooklyn in New York. This strategic urban design intervention enables people to follow the recommended appropriate social distancing procedures (Harrouk, 2020) (See Figure

14). Furthermore, the same social distance circle application in Domino Park was also applied in Kordon in İzmir (Fidan, 2020) (See Figure 15).

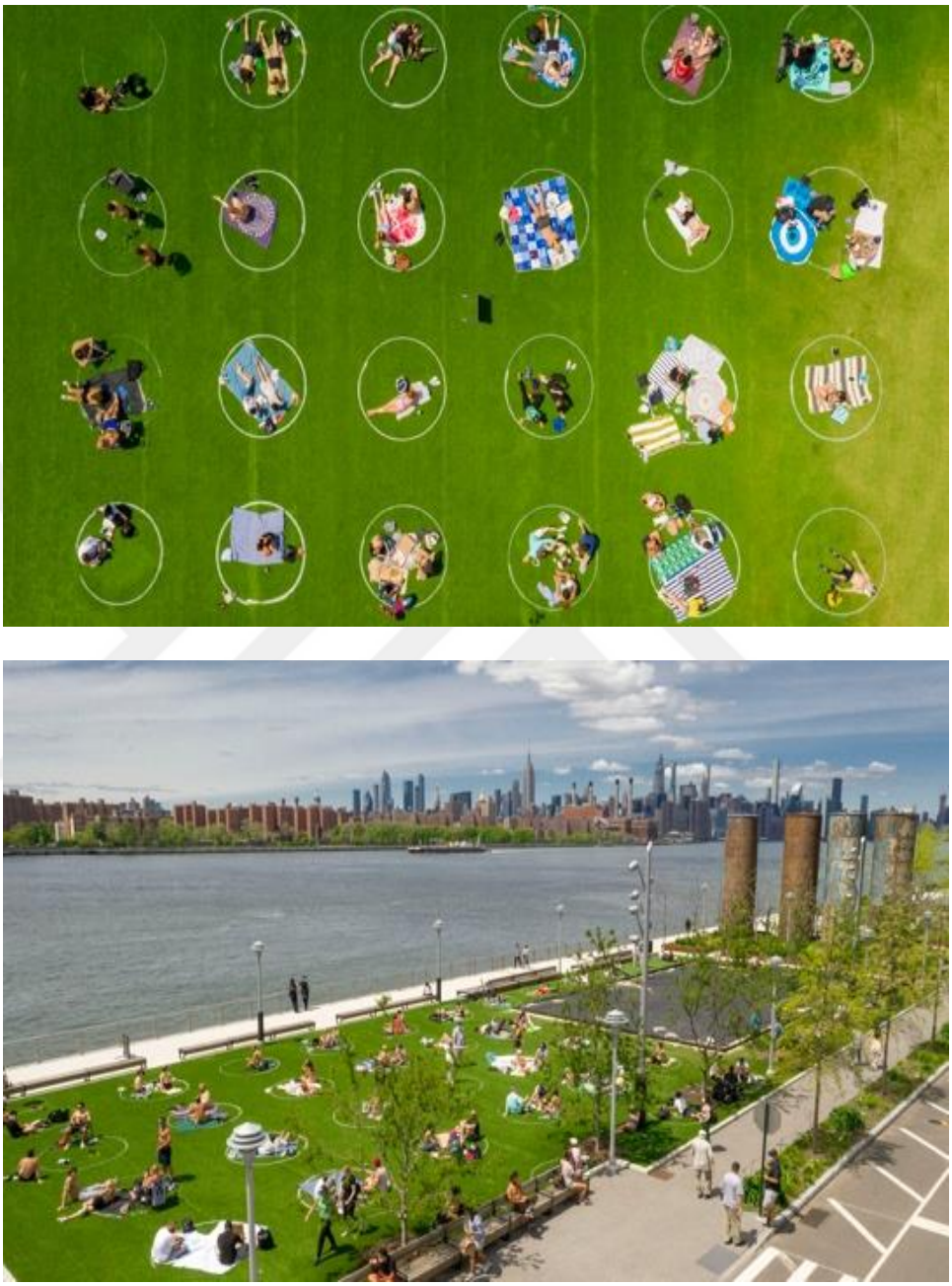

Figure 15.Social Distancing Circles in Domino Park (Source: Harrouk, 2020)

Figure 16.Social Distancing Circles in Kordon in İzmir (Source: Mengüarslan, 2020)

A similar project is available on Signapore (See Figure 16). Singapore residents are using tape to border many outdoor communal areas and malls to help visualize social distancing guidelines (Dağlı, 2020). However, such practices, which only consist of traces on the ground and do not have a physical limit, are not sufficient to maintain social distance. These solutions, which do not define concrete physical boundaries, are often ignored by the users of the urban space (Ensarioğlu, 2021).

Figure 17.Social Distancing Lines in Singapore (Source: Dağlı, 2020)

Furthermore, Hua Hua Architects has developed a project called Gastro Safe Zone for people to use public spaces safely after Covid-19 in Brno in Czech Republic. (See Figure 17) With this project, it is possible to eat outside by following the social isolation rules. The project consists of fixed chair and table units placed in "safe zones" approved by the authorities. It is possible to eat without a face mask in these safe zones. These units are placed on a certain grid system, taking into account the human circulation and the spread of the virus. Outside of the safe zone, people must act with masks. Food ordering and payment is made through a window of the restaurant. Contact between customer and staff is minimized. Another feature of the project is that these units can continue to be used as urban furniture in squares and parks when the quarantine process is completely over (Harrouk, 2020).

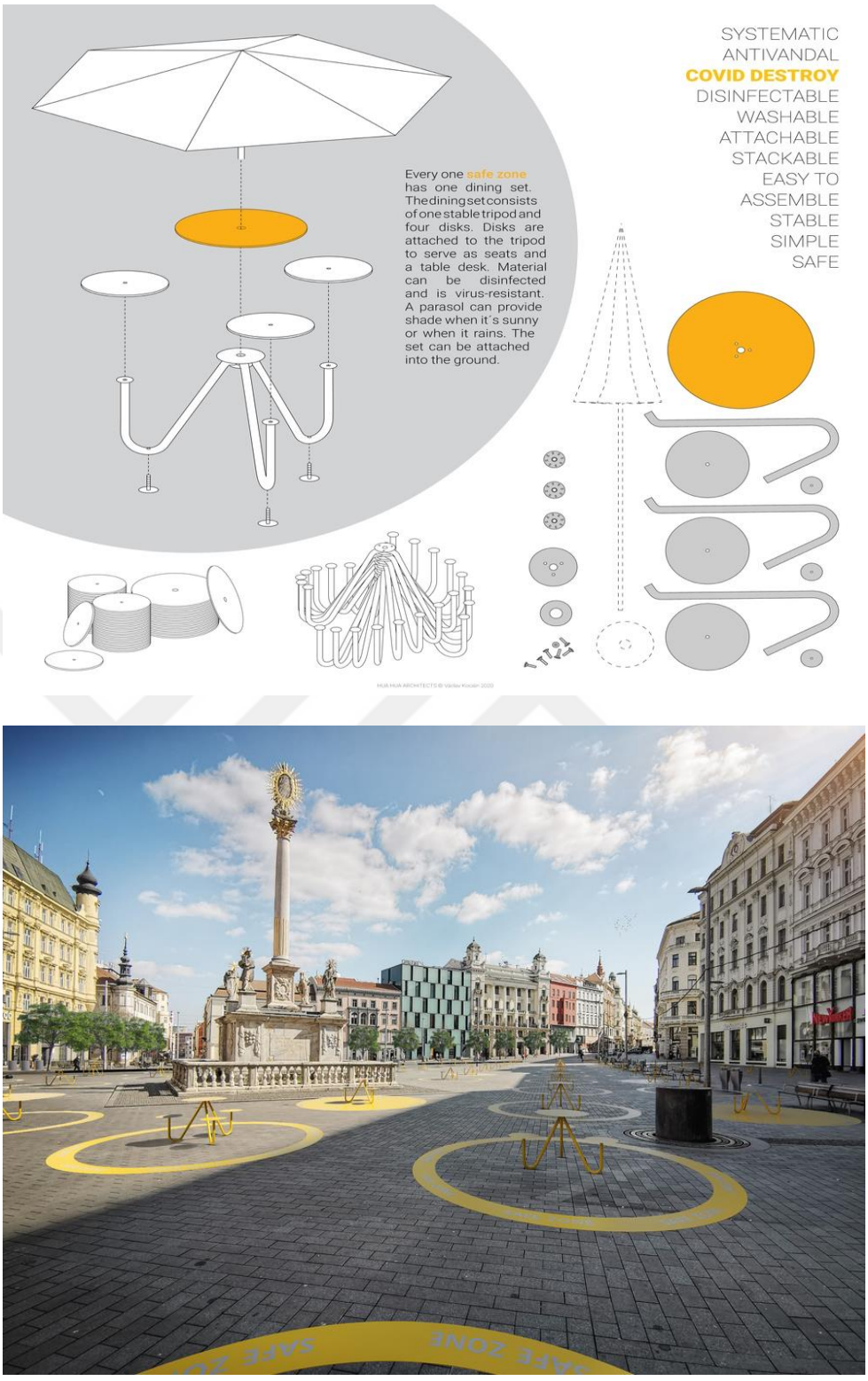

Figure 18.Gastro Safe Zone in Brno in Czech Republic (Source: Harrouk, 2020)

On the other hand, outdoor sports activities have also been interrupted with the Covid-19. Therefore, a new normal-compatible process has begun in sports activities. One of these sports is yoga, which has been preferred by the majority of people in recent years. A yoga school in Toronto began teaching classes in glass globes to prevent the spread of the virus (Milliyet, 2020).

Figure 19. A yoga studio made of glass cubes in Toronto (Source: Milliyet, 2020)

3.2. Covid 19's Impact on Small Towns Around the World

With the emergence of cities and urbanization and the development of technology, epidemics and pandemics have led to serious suffering on people and societies, especially in areas where the population density is high. Pandemic diseases that occur in this way have led to human deaths and can lead to significant changes, transformation, and developments in economic and social fields (Bayhan, 2017). Dynamics such as human mobility, population density and extreme urbanization provide very favorable environments for the spread of viruses and increase the number of cases significantly. It can be said that there is a relationship between the spread of the virus and high population density (Sayın and Bozkurt, 2020). Throughout history, it has been observed that there has been an escape from big cities to the countryside

after the pandemic. The upper income groups have historically moved to the suburbs in every pandemic period, with concerns about hygiene and health (Candan, 2020).

The rural population in our country has been migrating to big cities for many years with the aim of increasing the living standards and closing the labor force gap of industrializing cities (Gülsün, 2020). Today, 60 percent of the world's population and while 93 percent of Turkey's population lives in cities (Candan, 2020). It is inevitable that children, young people, and the working population will come together in big cities and neighborhoods where worker and laborer people are concentrated (Ergönül, 2020). When the cities with the highest number of Covid 19 are examined, it is observed that Covid 19 spreads more as a result of the limited areas in the city rather than the crowds in the cities. The reasons such as the lack of public space in the cities, the lack of gardens of the residences, the increase of the tall condo living culture, the unplanned construction, lack of infrastructure, transportation, water, energy, and health services not being distributed equally to the public, effectively influence the spread of the disease during the pandemic process (BBC, 2020). Covid-19 is seen to eliminate, change or reveal new needs, some of the usual needs in our country. It is known that from the period when cities were attractive due to factors such as education, health, work, and social life they offered for people and migration from rural to urban was seen as a status change; today those who have the opportunity and people who do not completely leave their villages or small towns are returning to their villages and small towns during the pandemic process (Çam, 2020). Especially in recent years, a reverse migration movement can be mentioned with the physical, economic, and social concerns about cities around the world. This movement has become a stronger trend with the pandemic period when the importance of living in nature and agricultural production is better understood (Gülsün, 2020).

Economic and political events, technological developments, pandemics, social and psychological reasons affect tourism as well as affect the development and distribution of second homes and change the meaning of these residences. Today, the Covid-19 pandemic is the most current social event that changes the meaning of second homes and increases the demand for second homes. With the start of home quarantines, there has been an intense movement from city centers to second homes (mostly summer houses) in summer resorts, especially in Izmir and Muğla. The uncertainty in business life, the cessation of many workplaces, and the interruption of education in schools

accelerated this mobility. Many people responded to the authorities call to "Stay at Home" by fleeing to second homes that they owned or rented. Many holiday resorts and rural areas, especially Bodrum, Marmaris, Çeşme, Kaş, Bozcaada, Gökçeada, Ayvalık, Datça, have faced intense human mobility (Zoğal and Emekli, 2020).

Furthermore, people want to have more comfortable and livable house since they spend most of their time in their homes. Perspectives on private and public space conceptions are changing as houses with gardens are more ideal for physical distance. For this reason, those who had the opportunity moved to their summer homes. Some people decided to leave city life completely (Erginoğlu, 2020). This demand has brought along serious price increases in both rental and sale second homes. Since the first coronavirus case was seen across the country, the prices of detached houses for sale have increased by 25% and the prices of detached houses for rent have increased by 18% (Zoğal and Emekli, 2020). While the segment of the population with high economic opportunities can buy a house with gardens and greenery, the low-income segment cannot find such an opportunity. In addition, infrastructure and environmental services are less in areas with low income (BBC, 2020). It has been observed that the poor people who have to work in cities and live-in unhealthy conditions are more affected by the Covid-19 pandemic. It is observed that the population living in rural areas is less affected by the pandemic process compared to those living in urban areas (Ergönül, 2020).

On the other hand, this dynamism towards second homes has created negativities for the local people at some points. First of all, with the migration of people to urban areas, the risk of spreading the pandemic to different places has come with it. At the same time, the lack of adequate preparation in holiday resorts and rural areas caused disruption of public services and problems such as traffic density and noise (Zoğal and Emekli, 2020) Therefore, many measures have been taken to prevent the disease in these regions.

3.3 Covid-19 and Slow Cities

Slow Cities are considered as a subcategory of small towns as they have a population criterion of not exceeding 50,000 people. Cittaslow is a movement that was founded in Italy in 1999 and has been adopted and implemented in 268 different towns in 30 countries. The slow city (Cittaslow) movement was born from the desire to slow down

the acceleration of change in cities and to keep local characteristics alive, without losing their original and distinctive local identity. It is based on the principle of preserving the environmental and sustainable features of the traditional and historical structures of the cities (Ak, 2017). The Cittaslow movement has a charter that includes 72 different aspects, such as protecting the environment, supporting local products, sustainable energy, and environmentally friendly architecture (Cittaslow, 2020). The Slow Food Movement is a pioneering movement that influenced the emergence of the Cittaslow Movement. The basic idea of the Slow City movement is to oppose the fast-paced city movement in order to provide better living conditions for the city dwellers. The concept of Cittaslow includes sustainability, history, tradition, hospitality, and advocates individuality. In order for a city to be called "Slow City" membership must conform at least half of the specified criteria. Once cities meet the criteria they do not have, they are eligible to reapply for an inspection every 4 years (Mayer and Knox, 2006). The use of clean and renewable energy sources that are not harmful to the environment and people is encouraged in the settlements of Cittaslow movements members. The concept of the slow city has enabled cities to secure their future and has been a roadmap for local governments. The slow city movement is a concept that is against the distorted construction, the disregard of all the values of the city, and the gradual alienation of the individual from his own traditions and customs and other members of the society in order to live fast and modern (Coşar, 2013). 72 criteria have been identified under 7 main policies that want to participate in Cittaslow movement. These 7 main policies are as follows: (Çelikyay and Bayraktar, 2021)

- Energy and Environmental Policies
- Infrastructure Policies
- Quality of Urban Life Policies
- Agricultural, Touristic and Artisan Policies
- Hospitality, Awareness, and Training Policies
- Social Cohesion
- Partnerships

Covid-19 which is a global pandemic has caused many changes in people's lives. As the Covid-19 pandemic has affected the whole world, it has also affected slow cities and their local governments. The significant impact of cities on health behaviors and the contagion of the disease has re-emerged, and this has necessitated a change in

architectural and urban planning approaches (Yıldırım and Özmertyurt, 2021). Thus, during the pandemic process, residential areas that overlap with the criteria of slow cities in terms of settlement preferences have come to the fore (Çelikyay and Bayraktar, 2021). Natural life, organic foods, local production and local seeds, bicycle paths, urban green spaces, balanced population, access to natural resources have been mentioned a lot. However, critical attitudes towards discourses such as fast life, metropolises that cross borders, chaos and crowd, mass production, artificial foods have emerged. The benefit of cities having slow city principles and policies is seen in their ability to act quickly and produce solutions when faced with an extraordinary situation such as pandemic or disaster (Çorumluoğlu and Kazma, 2020). At this point, the concept of urban resilience for slow cities draws attention. In the pandemic process, it is of great importance to reduce global interaction and strengthen the resilience of society by introducing self-sufficient economic solutions. In this context, slow cities aim to preserve local identity while adapting to their economic, social, and environmental challenges by supporting local farmers, producers, traders, arts groups, and non-governmental organizations of all kinds. Also, slow cities are more easily isolated and protected than big cities. Approaches to urban quality of life policies of slow cities as resilient city planning draw attention. Increasing the resilience of cities against the crises encountered in the 21st century such as epidemics, pandemics, climate change, natural disasters, and economic crises is one of the focal points of the Cittaslow movement. The criteria of the Cittaslow movement such as protecting the urban landscape and cultural values, ensuring their sustainability, increasing urban livability, supporting the historical urban fabric and local producers, increasing green areas, and providing the city internet network are among the urban quality of life policies of slow cities. All these criteria, which are necessary for the Slow City, reveal the alternative and guidance of healthier, smarter, sustainable, and low-density cities during and after the pandemic (Yıldırım and Özmertyurt, 2021). In the context of the Cittaslow idea, what kind of policies are created to create social resilience is an important issue. In the next section, the concept of resilience is discussed through the impact of the Covid-19 pandemic on the built environment and focuses on Seferihisar which is the first slow city in Turkey.

CHAPTER 4: SMALL TOWN RESILIENCE DURING COVID-19 PANDEMIC: THE CASE OF SEFERİHİSAR

In the process of combating the Covid-19 pandemic, people tended to small towns due to reasons such as the unplanned construction and the spread of population density in big cities, the risk and restriction of public transportation, the limited logistics opportunities, the difficulty of accessing natural and healthy food, people have turned to small settlements. For this reason, slow cities have been the cities that are preferred for settlement and frequently come to the agenda in this process (Çelikyay and Bayraktar, 2021). In this part of study, the methods of combating the COVID-19 pandemic of the city of Seferihisar, which is a slow city, are discussed. The activities carried out by the city of Seferihisar before and during the pandemic were revealed in the context of the policies proposed by the Cittaslow movement.

4.1. Seferihisar as a Slow City

Seferihisar is one of the districts of Izmir that located on the Aegean Sea coast in the West of Turkey. The surface area of Seferihisar is 286 km^2.

Figure 20.Seferihisar districts map (Source: Openstreetmap, 2021)

The history of the city of Seferihisar dates back to 2000 BC (Çelikyay and Bayraktar, 2021). Seferihisar was the first Slow City to be designated in Turkey and when it is evaluated in the context of slow city criteria; it is seen that it meets the conditions such

as agricultural, tourist, awareness, social, and cohesion policies (Aydoğan, 2015). The practices in Seferihisar prove that it functions as a successful locomotive in terms of encouraging its development and development by attaching importance to the quality of life, environment, nature, and local culture (Ak, 2017). It has completed 70% of the criteria required for membership (Cittaslow Turkey, 2021).

Furthermore, according to the data of TUİK, the population information of Seferihisar before and after it became a quiet city is given in Table 1.

Table 1. Population Information of Seferihisar (Source: Türkiye İstatistik Kurumu, 2020)

	Year	**Population**
Before the Cittaslow	**2000**	17.526
	2008	26.945
After the Cittaslow	**2010**	32.655
	2020	48.320

According to this information, while the population increase was 9.419 people between 2000-2008, the population increase between 2010-2020 was 15.665 people. Also, in the last case, the population has approached the 50.000 people, which is the condition of being a Cittaslow city. Furthermore, the difference between the population of Seferihisar before it became a Slow City and the population after it became a Slow City is quite high. Before the Covid-19 pandemic, it was preferred to live in Slow Cities and the population of slow cities was increasing day by day. The reason for this increase can be cited as the preference for organic agriculture, avoiding the crowds in big cities, and returning to nature. On the other hand, this situation has accelerated with the emergence of the pandemic and people have preferred to settle in slow cities in order to get away from the crowd, stress, and chaos of big cities and to have easier access to city squares, public and urban areas that they could not use especially during the pandemic period (Çelikyay and Bayraktar, 2021). Therefore,

with the Covid-19 pandemic, people preferred to escape from big cities and settle in small cities as Çeşme, Seferihisar, Urla, Menemen, Akyaka etc. Despite this, Seferihisar as a quiet city with a blue flag has been the region receiving the most immigration in İzmir (Diken, 2021). According to a news dated May 6, 2021, citizens flocked to the district before the restriction decisions taken by the central government as part of the fight against the pandemic and the current population is approaching 200 thousand. Due to the search for housing for the purpose of accommodation of the citizens who came to the district, the housing prices started to increase (Göksu, 2021). This situation suggests that the economic dynamics have also been transformed with Covid-19 (Çelikyay and Bayraktar, 2021).

On the other hand, an increase in the number of Covid-19 cases in the district has been observed with the increase in population (Uğurluoğlu, 2020). Accordingly, Seferihisar Municipality has carried out many studies to prevent Covid-19. One of the focal points of the Cittaslow movement is to increase the resilience of cities against the crises they face. The importance of this goal has emerged during the Covid-19 pandemic process. Because, the pandemic process has shown the importance of self-sufficiency in cities, realization of local production, being resistant to natural and economic crises, and international cooperation. A number of applications such as the e-municipality system, Seferikart, and increasing the use of bicycles, which were realized within the framework of Cittaslow before the pandemic, played an important role in increasing the resilience of Seferihisar (Çelikyay and Bayraktar, 2021). In order to evaluate this situation, Cittaslow Turkey has started an evaluation study during the pandemic process in order to examine the current situation of cities in line with the Cittaslow philosophy, and to support cities to become resilient, sustainable cities that claim their own identity. Seferihisar Municipality voluntarily participated in this study. As a result of the evaluation of the study, the resilience of the city against the Covid-19 pandemic will be revealed. The studies carried out during the Covid-19 pandemic in Seferihisar are shown in Table 2 (Seferihisar Belediyesi, 2020; Cittaslow, 2021).

Table 2.Policies of Seferihisar in the Pandemic Process as Slow Cities

Featured Policies on behalf of Cittaslow	**Policies of Seferihisar in the Pandemic Process as Slow Cities**
Environmental Policies	• All common areas within the municipality have been disinfected. • The cleaning and disinfection of the market areas continued continuously.
Policies to improve the Quality of Urban Life	• During the curfew implemented in Turkey, Seferihisar Municipality gives support to meet the various needs (food, pharmaceuticals, etc.) of people (Mobile market application) • Mask production • In the city center, information was given about Covid-19 and to raise awareness of the public.
Policies on economy and agriculture, tourism, tradesmen, and craftsmen	• It has been ensured that producer markets can serve again within the scope of pandemic measures. • Seferihisar municipality provided food aid to the public as a result of the decrease in incomes and increase in unemployment.
Hospitality, Awareness and Education Policies	• Informing through written and social media
Partnerships	• Crisis desk created

As can be seen, a wide variety of activities have been carried out in Seferihisar within the scope of combating Covid-19 in accordance with the Cittaslow policies. These are all measures taken to ensure the city's positive response and to increase its resilience

against the pandemic. Despite this, it has caused difficulties in some urban services due to the overpopulation in the city. In addition to all this, the fact that Seferihisar is in the blue group in the risk map of the Ministry of Health shows that it has been successful within the framework of Covid-19 measures. In this direction, a questionnaire was applied to the local and summer house owners living in Seferihisar. In the next chapter, the success of the studies carried out in Seferihisar is examined more clearly according to the results of the survey.

4.2. Methodology

This research was created by following a research methodology with case study approach and used survey researched as the data collection. Subaşı and Okumuş (2017) describe of case study as;

"Case study; it is a method in which a single situation or event is examined in depth longitudinally, data is collected in a systematic way and what is happening in the real environment is looked at." (p. 420)

In the survey study, the survey was used as the data collection method. The survey study was created through "*google forms*" and it was distributed to the participants with the random sampling method. The online survey link was shared by people over the age of 18 who lived in Seferihisar for 12 months and only in the summer. The protection of personal data was ensured because of the people who participating in the survey did not declare their personal information. Also, clearer results have been obtained because of this. The collected data were evaluated both quantitatively with descriptive statistics and qualitatively with comments. The main aim of the research is to measure the urban resilience of Seferihisar, a slow city, during the Covid-19 pandemic. For this purpose, questionnaire questions were directed to understand the urban resilience in Seferihisar during Covid-19 pandemic focused mainly around the use of open spaces and built environment.

While preparing the questions in the survey technique, the relevant literature was surveyed, questions were prepared by taking the opinions of the experts on the subject from the literature review, and care was taken to understand the questions in a meaningful, and clear way by the subjects. Questions were formed with the *item writing method* based on the opinions of Oflaz (2020) and Balaban (2020) which were

determined while examining the literature at the stage of creating the questionnaire. According to Büyüköztürk; (2015)

"Item writing is done with the aim of collecting the data needed based on the variables in the subsections. In line with the literature review, knowing the theoretical framework on the subject and reaching similar studies that have been done before is an important point in designing the items. Survey questions can be divided into two as open-ended and closed-ended according to the clarity of the answer options"

In this survey study, the survey questions were prepared using both open-ended and closed-ended questions. The open-ended questions in the survey are interpretation questions according to the way of answering. On the other hand, closed-ended questions are classification questions and likert-scale questions in which one and many options are marked.

In the literature, according to city planner Oflaz (2020), there are 6 important points to be made in cities with Covid-19. These points are population density, changing working conditions, changing housing structures, green and open spaces, transportation planning and upper scale planning. In addition, according to Balaban (2020) with the Covid-19 process, some new normals such as urban density, park and green space use, street designs, public transportation use, smart cities are emerging. These new normals lead to some changes in the structural environment. The survey questions are based on these points that Oflaz (2020) and Balaban (2020), consider important in urban design. But Oflaz (2020) does not have change of shopping habits and education delivery, and these are handled as a part of the upper scale approaches.

The survey was applied on subjects in two different groups. These groups consist of local people and people who settled in Seferihisar during the Covid-19 process. The main purpose of including two different audiences in the survey study is to evaluate the changes in the structural environment of Seferihisar during the Covid-19 period from the perspectives of both local people and settlers. Within the scope of the study, both groups participated in the survey study on the same questions in order to obtain more accurate results.

The questionnaire form is grouped into three parts. The first part consists of 4 multiple-choice questions covering demographic characteristics such as gender, age, marital status, and occupation. In the second part, the main purpose is to question what kind

of changes occurred in the built environment of Seferihisar during the Covid-19 period. This section consists of multiple choice and open-ended interpretation questions. The third part of the survey study, the main purpose is to understand what kind of responses Seferihisar gave to the changes in its built environment. This section consists of 23 questions prepared with the likert scale, which is one of the multiple scale types, and 1 open-ended question. In this section, the subjects marked one of the options “I strongly agree, agree, have no idea, disagree, and strongly disagree” for the questions directed to them, by choosing the most appropriate judgment for each question.

4.3. Determination of Survey Sample Limits and Survey Duration

The survey universe is the community that includes all possible participants to be the subject of the research (Saunders et al., 2019). Seferihisar is a district of Izmir Province. The survey study takes place in Seferihisar. The survey was applied to two different groups consisting of local people and new migrants that came to Seferihisar after the pandemic with the same questions. The easy sampling model was used for the survey applied. This sampling model is a technique in which everyone responding to the survey is included in the sample. The use of this technique is quite common because the easiest to reach participant is the most ideal. The process of finding subjects for the study continues until the desired sample size is reached (Göker, 2020).

While preparing the Survey Questions, there are no questions that the participants will reveal their identity. The information of the people participating in the survey is kept anonymous and confidential. The duration of the survey was determined as approximately one month. The survey was conducted between 06.04.2021 and 06.05.2021. The questionnaires were transferred to the virtual environment with the “Google forms” application. The questionnaires were sent to the participants social media in the form of a “Survey Link” with random sampling method. In addition, the survey questions were shared with the people living in Seferihisar for a period of 1 month via social media. It was especially shared “Seferihisar Citizens and Akarca Association” pages on Facebook. A total of 216 participants answered the survey questions. The survey results were downloaded as "excel" via "Google forms". Analysis were made by generating graphs of the survey results.

4.4. Result of Survey

In the survey study, the demographic information of the participants was first asked. The personal information of the participants such as gender, age, marital status, and professions was reported. Then, in order to analyze the changing built environment of Seferihisar, the changes that took place in this region with the Covid-19 process were questioned through Oflaz's (2020) framework.

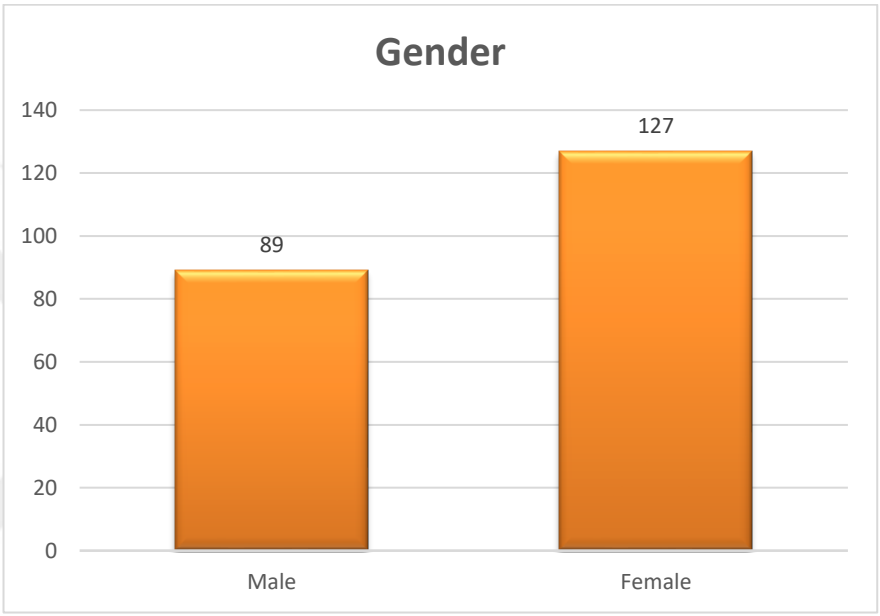

Figure 21.Gender Chart

It was found that 89 people (41.2%) were men and 127 people (58.8%) were women. All the participants in the survey answered the “Gender” question.

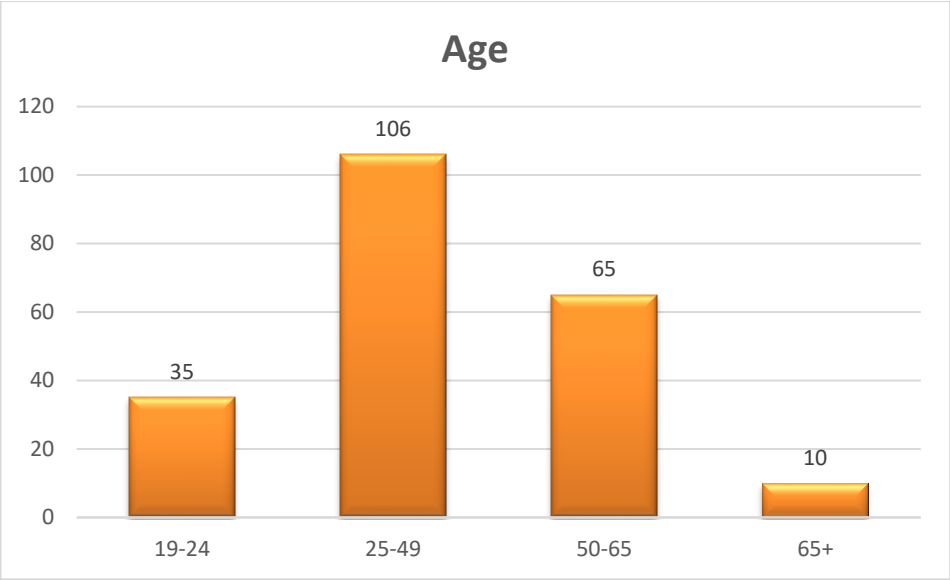

Figure 22.Age Chart

The age ranges of the people participating in the survey were 36 people between the ages of 19-24 (16.2%), 106 people between the ages of 25-49 (49.2%), 65 people between the ages of 50-65 (30%), and 10 people over 65 (4.6%) years old. All the participants in the survey answered the "Age" question. So, most of participants are between the ages of 25-49. Also, the least number of participants in the 65-age group because they usually at home during the quarantine period and they could not access the questionnaire.

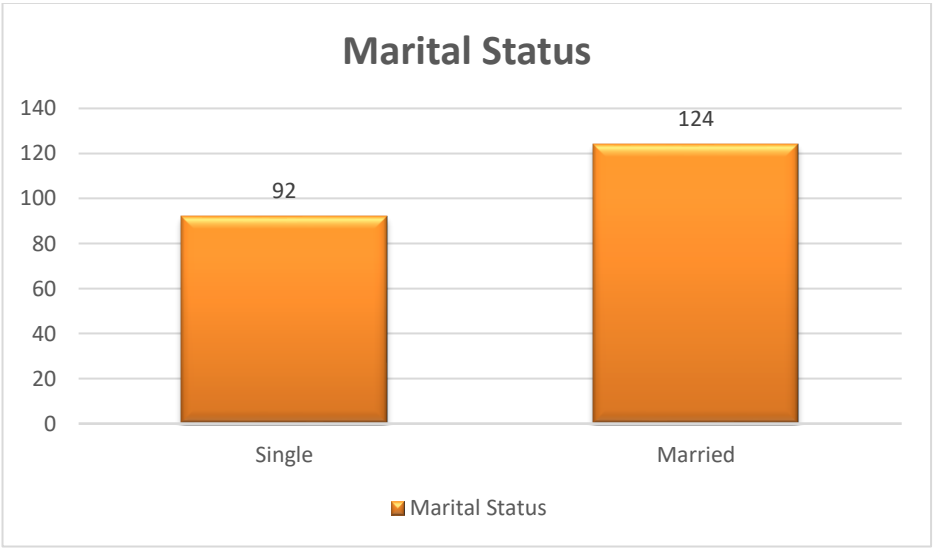

Figure 23.Marital Status Chart

Among the respondents, 92 (42.6%) were single and 124 (57.4%) were married. All the participants who participated in the survey answered the question of "Marital Status".

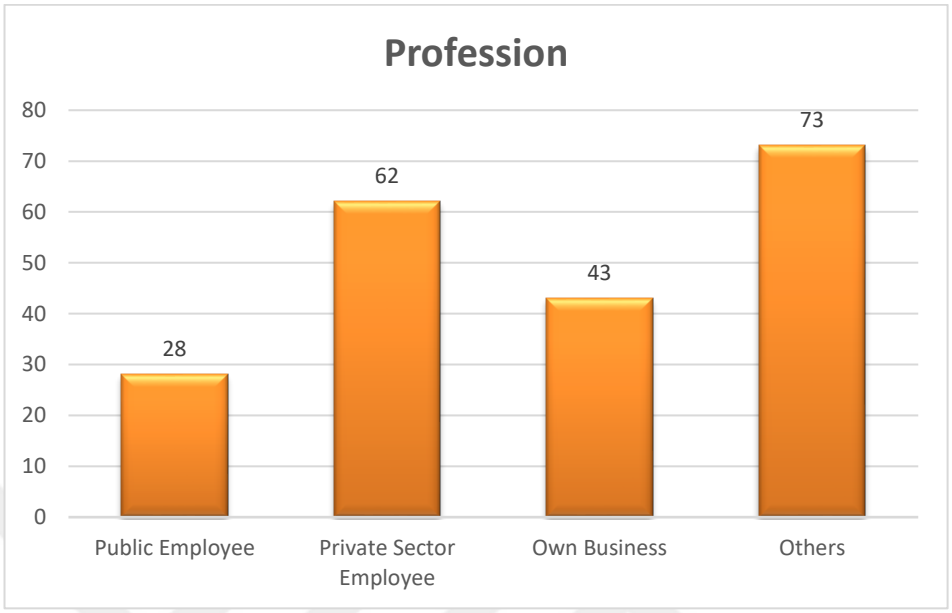

Figure 24.Profession Chart

Among the people participated in the survey, 28 (13.9%) public employees, 62 (30.9%) private sector employees, 43 (21.4%) self-employed people and 73 (36.4%) people were obtained as other professions. Other occupations include bartender, retiree, non-working people, and students. Among the participants participating in the survey, 201 people answered the question "Your Profession" and 15 people did not answer the question of your profession.

4.4.1. Answers to survey questions

During the Covid-19 process, people migrated to their homes in small areas because they were tired of living in apartments in cities. This migration may occur mainly for many reasons as distance education and remote working. In addition, some changes occur in the structural environment of the migrated region as a result of migration. In the survey study, the effects of migration on the resilience of built environment in Seferihisar during Covid-19 has been selected as a case study. Built environment includes open spaces, buildings, and infrastructure. In order to assess the change and

intensity of use in terms of built environment in Seferihisar, the questions of the survey were determined according to the 6 items that Oflaz considers important for urban planning in the literature. Oflaz's framework include are population density and access to basic humanitarian services, the reflection of changing working conditions on the space, the reflection of changing housing structures on the space, the importance of green and open spaces, the importance of transportation planning and the importance of high-scale planning. According to the literature, the relationship between population density in cities and access to basic services should be balanced (Oflaz, 2020). At this point, with the following questions in the survey, the number of people living in Seferihisar during Covid-19 and how they reached basic facilities are investigated. The survey was applied to both temporary residents and local people because, accessibility of facilities is important not only for those who have a summer house but also for the local people who live in the area regularly. The results of the survey were evaluated on the same graphs as they did not contain different results in many questions for both the local people and people who came to the region after the pandemic. However, a detailed analysis was made for the questions that differ in their answers between local and migrant population that started living in Seferihisar as a result of the pandemic.

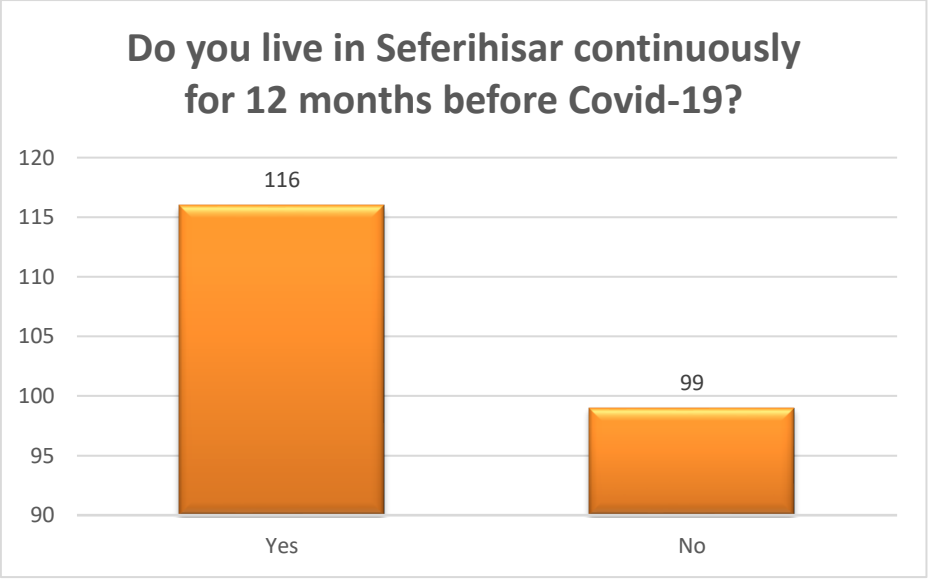

Figure 25.Question 1 Result in the second part of the survey

First question of the questionary is “Do you live in Seferihisar continuously for 12 months before Covid-19?” 215 of the participants answered the question so, only 1 person from the participants did not answer this question. Among the people who answered this question, 116 (53.9%) people lived permanently, 99 (46.1%) people do not live in Seferihisar permanently. (See Figure 25) So, 116 of the participants are permanent in the region but 99 people are not residents in Seferihisar. In other words, most of the participants are locals of the region.

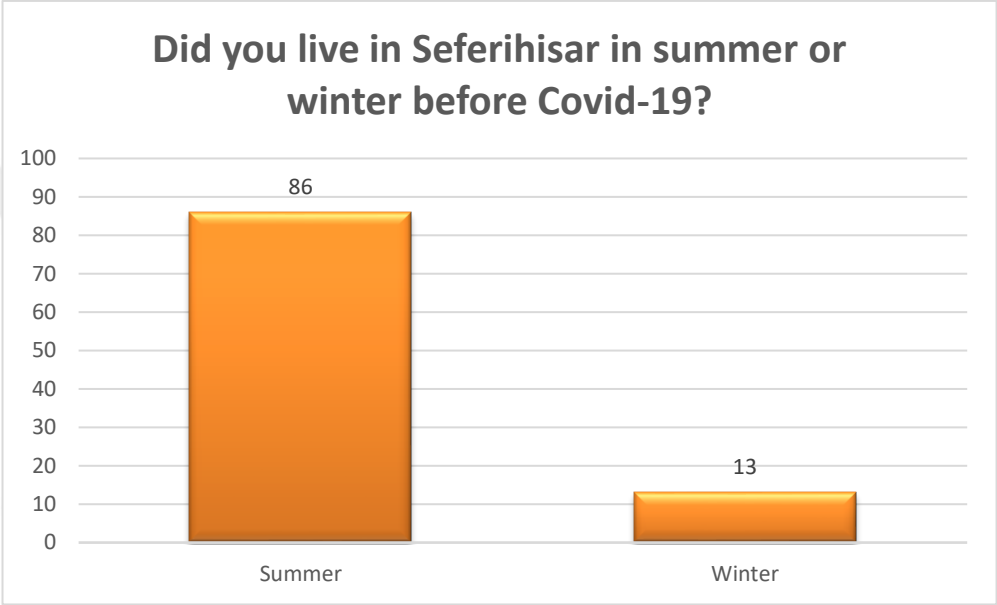

Figure 26.Question 2 Result in the second part of the survey

The second question was asked only to the participants who answered ‘no’ to the first question. Among 99 people who answered no to question 1, 86 (86.9%) people lived in Seferihisar during the summer period, and 13 (13.1%) during the winter period. (See Figure 26) So, most of the participants who did not live in Seferihisar for 12 months are summer house owners. Also, some people started to live in winter after Covid-19 although they did not live in winter before Covid-19.

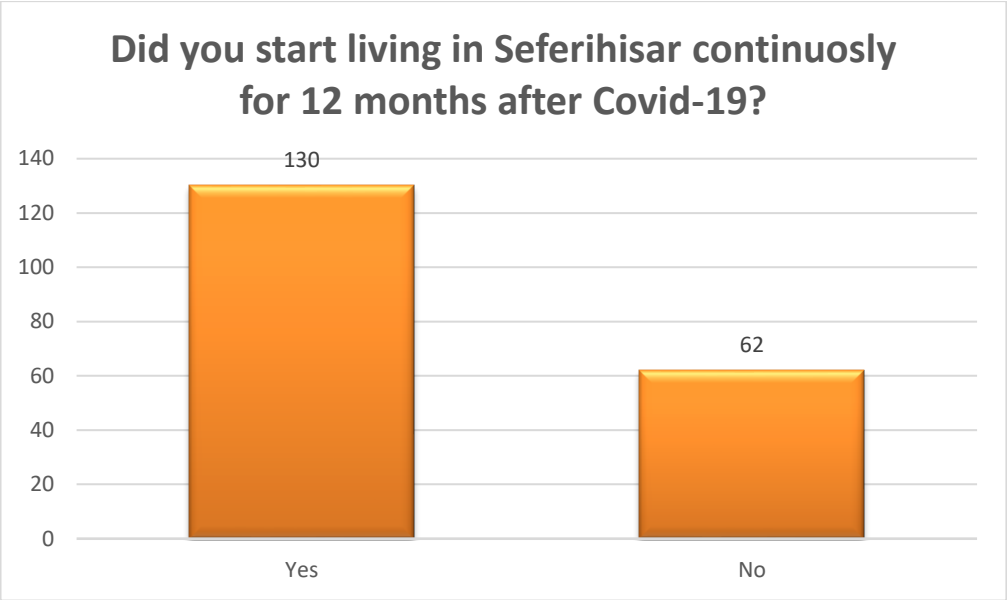

Figure 27.Question 3 Result in the second part of the survey

The third question of the survey is "Did you start living in Seferihisar continuously for 12 months after Covid 19? While 191 participants answered the question, 25 participants did not answer this question. Among the people who answered this question, 130 (68.1%) people started to live in Seferihisar for 12 years after Covid-19. 62 (31.9%) people started to live in Seferihisar before Covid-19 (See Figure 27). In addition, 116 people said that live for 12 months before Covid-19 in Seferihisar in the 1st first question and 13 people said that they started to live 12 months after Covid-19. Thus, it is seen that 116 people who lived for 12 months before Covid-19 also lived after Covid-19.

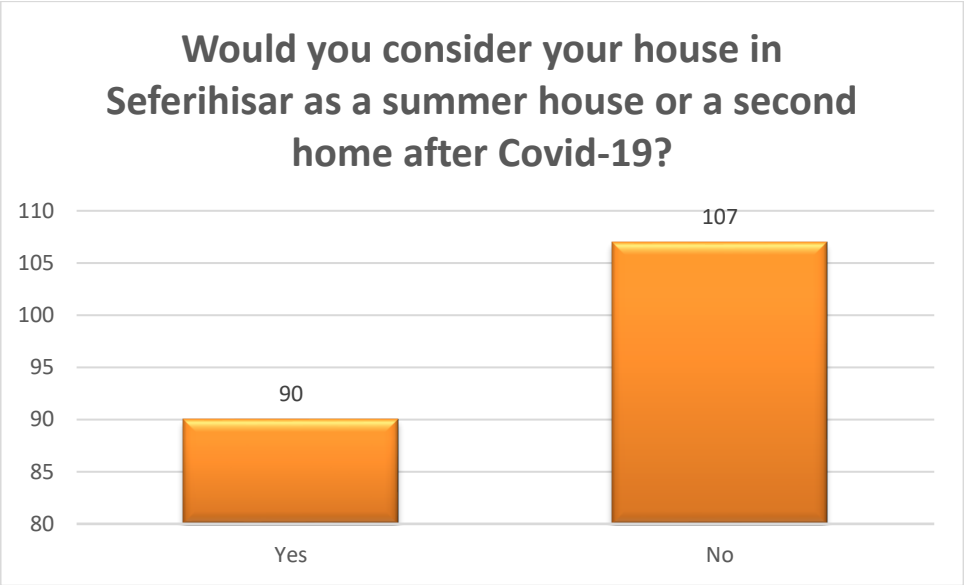

Figure 28.Question 4 Result in the second part of the survey

The fourth question of the survey is “Would you consider your house in Seferihisar as a summer house or a second home after Covid-19 Among the people who answered this question, 90 (46%) people consider their house in Seferihisar as a summer house or a second house. Also, 107 (54%) people do not evaluate their Seferihisar home in that category. (See Figure 28) While 197 participants answered the question, and 19 participants did not answer the question. According to these results, after Covid-19, most people see their house in Seferihisar as a permanent home.

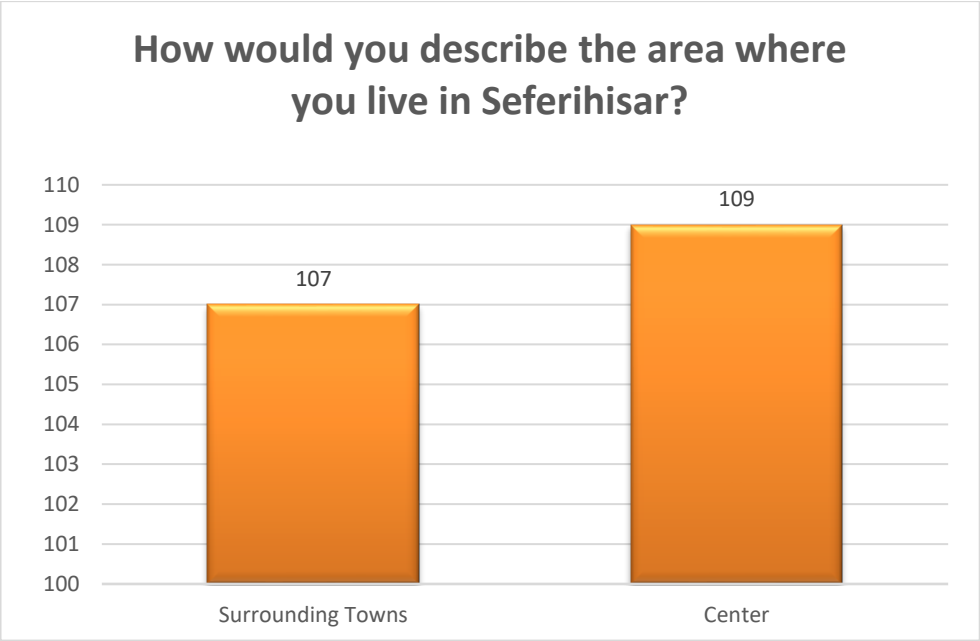

Figure 29.Question 5 Result in the second part of the survey

The fifth question of the survey is "How would you describe the area where you live in Seferihisar?" All participants answered this question. Among the people who answered this question, 107 (49.5%) people live in the neighboring towns of Seferihisar, and 109 (50.5%) people live in the city center of Seferihisar. (See Figure 29)

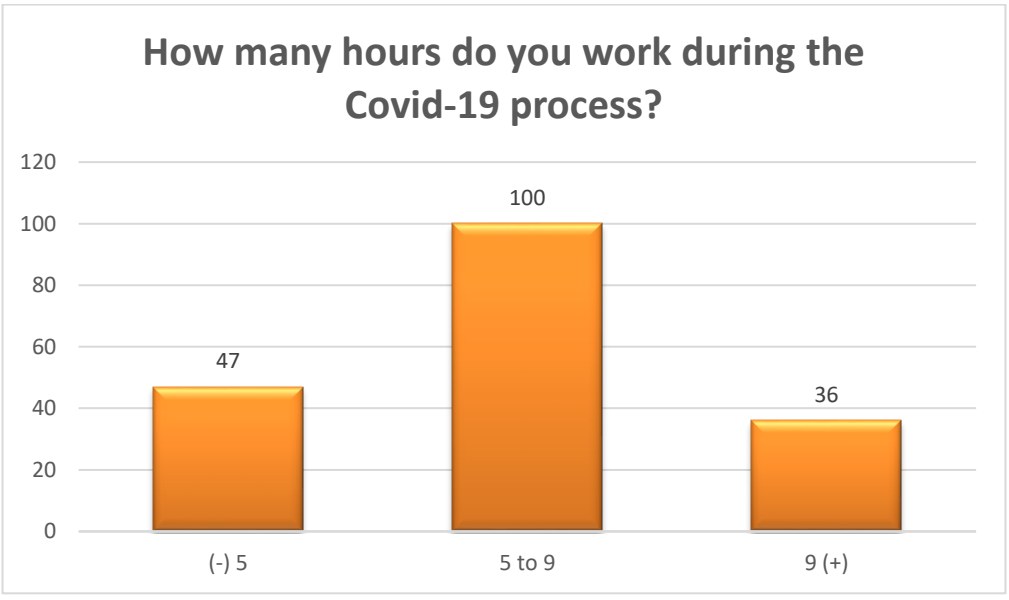

Figure 30.Question 6 Result in the second part of the survey

The sixth question of the survey is “How many hours do you work during the Covid-19 process?” Among the people who answered this question, 47 (25.7%) people work less than 5 hours during the Covid-19 process, 100 (56.6%) people work between 5 and 9 hours, and 36 (19.7) people work more than 9 hours. (See Figure 30) While 193 participants answered this question, and 106 participants did not answer the question.

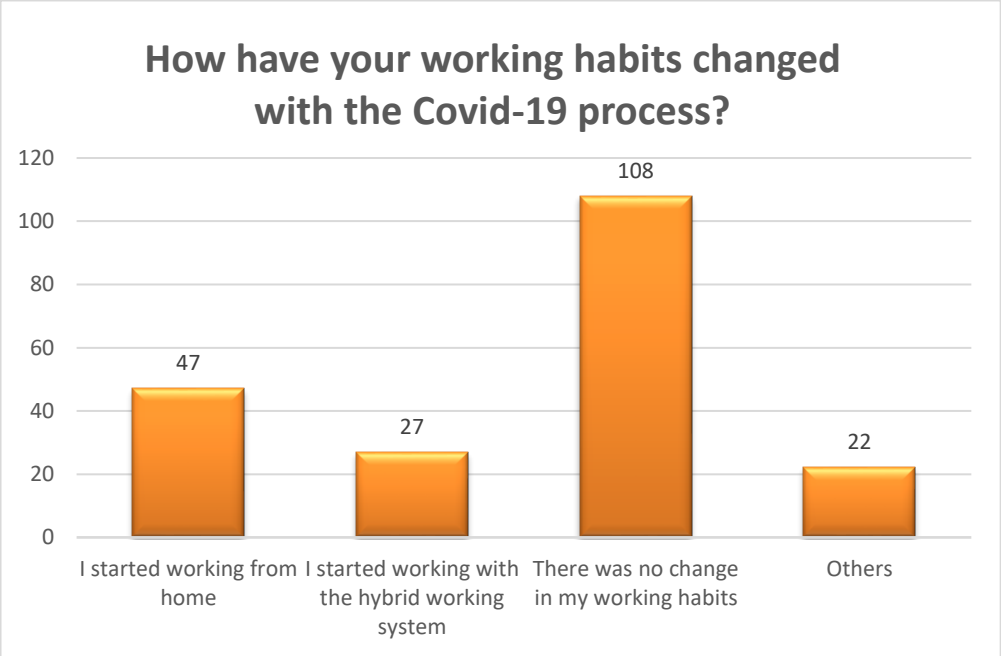

Figure 31.Question 7 Result in the second part of the survey

The seventh question of the survey is “How have your working habits changed with the Covid-19 process?” While 204 participants answered this question, and 106 participants did not answer the question. Among the people who answered this question, 47 (23%) people started to work from home, 27 (13.3%) people started to work with a hybrid work system. Hybrid work refers to working from home for a certain period and working from the workplace for a certain period. In this case, changes are observed in the work habits of 74 participants. Also, there was no change in the work habits of 108 (53%) people and 22 (10.4) people acquired other work habits. (See Figure 31) As other habits, people turned to gardening or not working. So, it is seen that most of the participants who answered the survey did not change their working habits. It is an important point whether the professions of these participants are suitable for working from home. Also, another important point is the occupational

groups that cannot close their workplaces in the process of staying home. There was no change in their working habits because they could not close their work. Furthermore, there are 74 people who started working online and switched to hybrid working system. The working habits of these people seem to have changed after Covid-19.

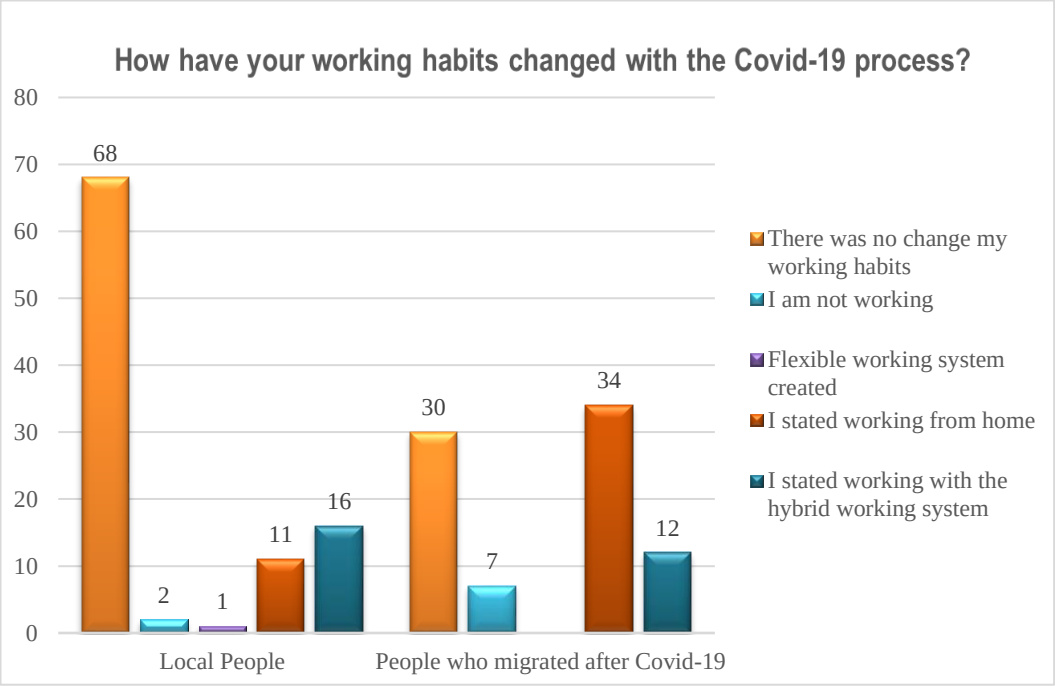

Figure 32.Question 7 Result by local and migrant people in the second part of the survey

When the question “How have your working habits changed with the Covid-19 process?” was examined separately by locals and people who migrated after Covid-19, different results were observed between the two groups. There was no change in the working habits of the majority of local people, but the majority of people who migrated after Covid-19 switched to working from home. This is an indication that switching to working from home is an important factor in facilitating the displacement of people.

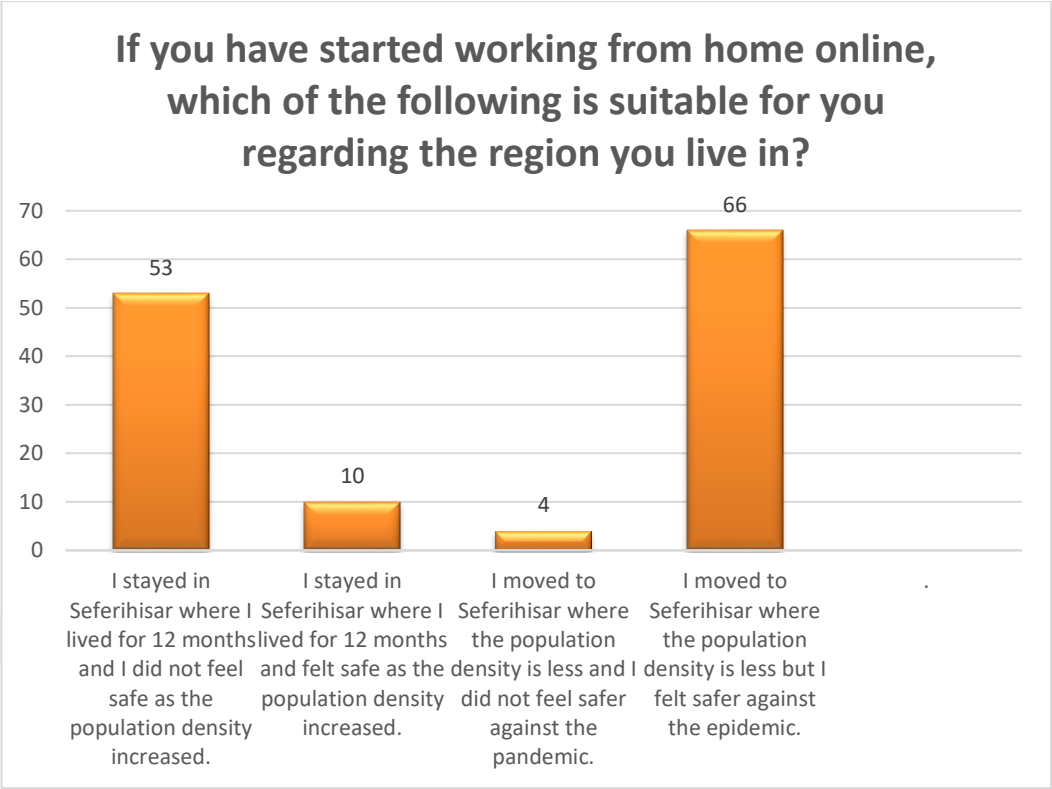

Figure 33.Question 8 Result in the second part of the survey

The eight question of the survey is “If you have started working from home online, which of the following is suitable for you regarding the region you live in?” 133 participants answered this question, and 106 participants did not answer this question. Among the people who answered this question, 66 (49.6 %) people who moved to Seferihisar from big cities feel safe due to the low population density. However, this situation was exactly the opposite for the local people living in the region. 53 (39.8 %) people stayed in Seferihisar where they lived for 12 months, they did not feel safe due to the increase in population density. (See Figure 33) So, people are in a serious fear of the disease during the Covid-19 process. Small towns are seen as safe zones by people because they are not as crowded as big cities. Even if they live in small town during the Covid-19 process, they do not feel safe. Also, this is exactly the opposite for people who live permanently in small towns. They feel less safe for the population increases in the region where they live with the pandemic.

Figure 34.Question 9 Result in the second part of the survey

The ninth question of the survey is “Which of the following best describes the impact of the Covid-19 process on your shopping habits?” 210 participants answered this question, and 6 participants did not answer this question. This question is important to understand the change in shopping habits during the pandemic. Among the people who answered this question, 20 (9.6%) of the respondents do not find online shopping safe, but they do not go to shops during the pandemic period. 47 (22.4%) people do not find online shopping safe, so they continue to shop in stores. 35 (16.6%) people find online shopping safe, but they prefer not to go to the shops during the pandemic. Therefore, they started to shop online with the pandemic although they did not shop online before the pandemic. 108 (51.4%) people were doing online shopping before the pandemic and did not change their shopping habits during the pandemic. More than half of the participants see online shopping as safe shopping choice before and after the pandemic. This situation shows that people's shopping habits are turning to online shopping day by day.

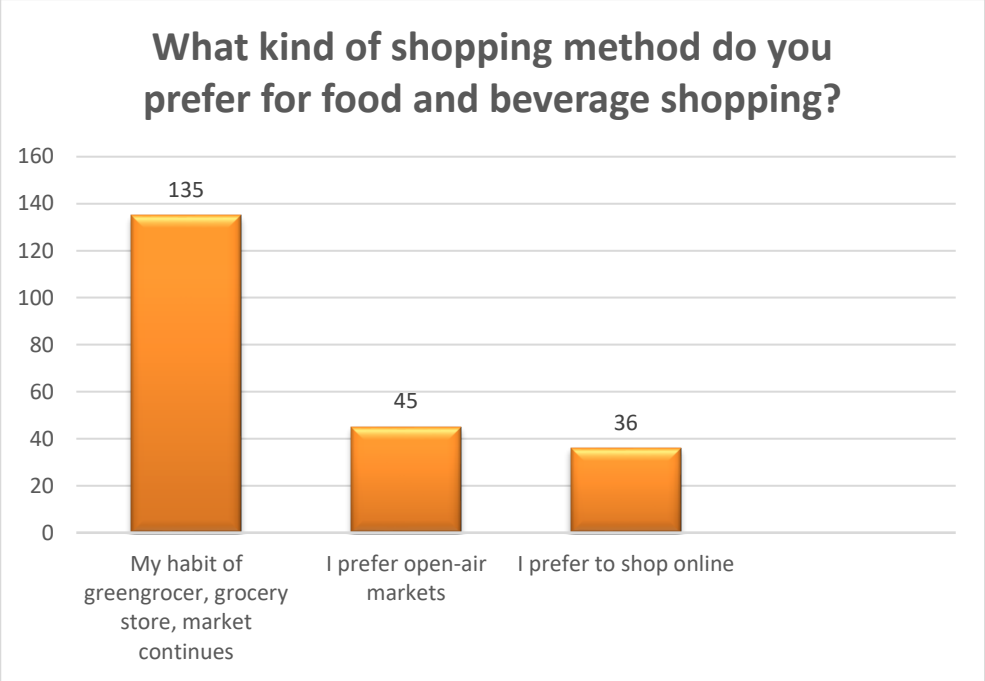

Figure 35.Question 10 Result in the second part of the survey

The tenth question of the survey is “What kind of shopping method do you prefer for food and beverage shopping?” All the participants who participated in the survey answered this question and none of the participants ticked the other option. Among the people who answered this question, 135 (62.1%) people still prefer greengrocer, grocery store, or market. 45 (20.9%) people prefer open-air markets. 36 (17%) people prefer online shopping. (See Figure 35) This shows that the online shopping method which is widely used in the Covid-19 process, is not mostly used for food and beverage shopping. Most of the people continue to use traditional methods such as greengrocer and market in food and beverage shopping. However, the open-air market shopping, which is the most traditional method, is generally not preferred. People more prefer markets and grocers because markets are places where people come into contact a lot.

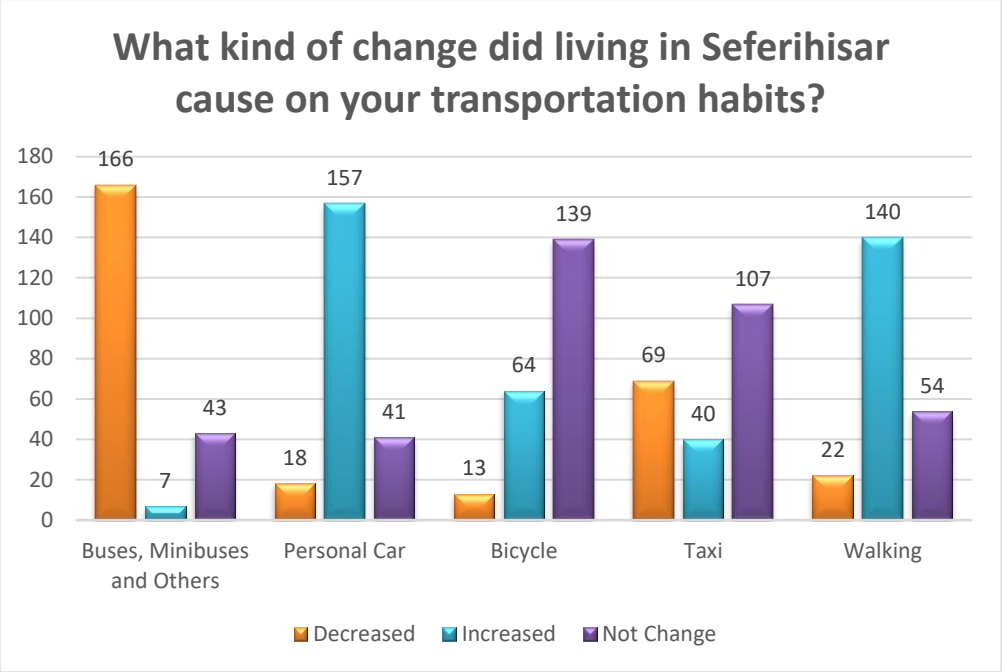

Figure 36.Question 11 Result in the second part of the survey

The eleventh question of the survey is “What kind of change did living in Seferihisar cause on your transportation habits?” Considering the results, first of all, the change in public transportation habits is striking. The change in the use of public transportation vehicles indicated that 166 (76.8%) people decreased, 7 (3.2%) people increased, and 43 (20%) stated that there was no change in people's preferences. 18 (8.3%) people stated that the change in personal vehicle use decreased, 157 (72.7%) increased, and 41 (19%) people stated that there was no change. 13 (6%) people stated that the change in bicycle use decreased, 64 (30%) increased, and 139 (64%) people stated that there was no change. 69 (32%) people stated that the change in taxi usage decreased, 40 (18.5) people increased, and 107 (49.5%) people stated that there was no change. 22 (10.1%) people stated that the change in providing transportation on foot decreased, 140 (64.9%) increased, and 52 (25%) people stated that there was no change. (See Figure 36) The desire to minimize contact with people during the pandemic process has also caused a difference in transportation habits. As seen in the result, there has been an increase in personal vehicle use while the use of public transportation habits is decreasing. The increase in the use of personal vehicles has created many problems in terms of infrastructure in small cities. Especially in Seferihisar, an increase in traffic density was observed and parking problems emerged. In addition, walking has become

one of the most popular vehicles of transportation that people use. Participants also stated that walking activity increased. Also, walking has been a critical element for settlement in small towns due to the fact that it is possible to reach everywhere by walking in small towns. At this point, the availability and number of pedestrian crossings and sidewalks is a critical issue. Furthermore, according to the survey results, no change was observed in the use of bicycles. In line with the Cittaslow criteria, it has been observed that the use of bicycles has become widespread in the region thanks to the bicycle paths built before the pandemic. Therefore, cycling has already increased in the region and no change has been observed during the pandemic period.

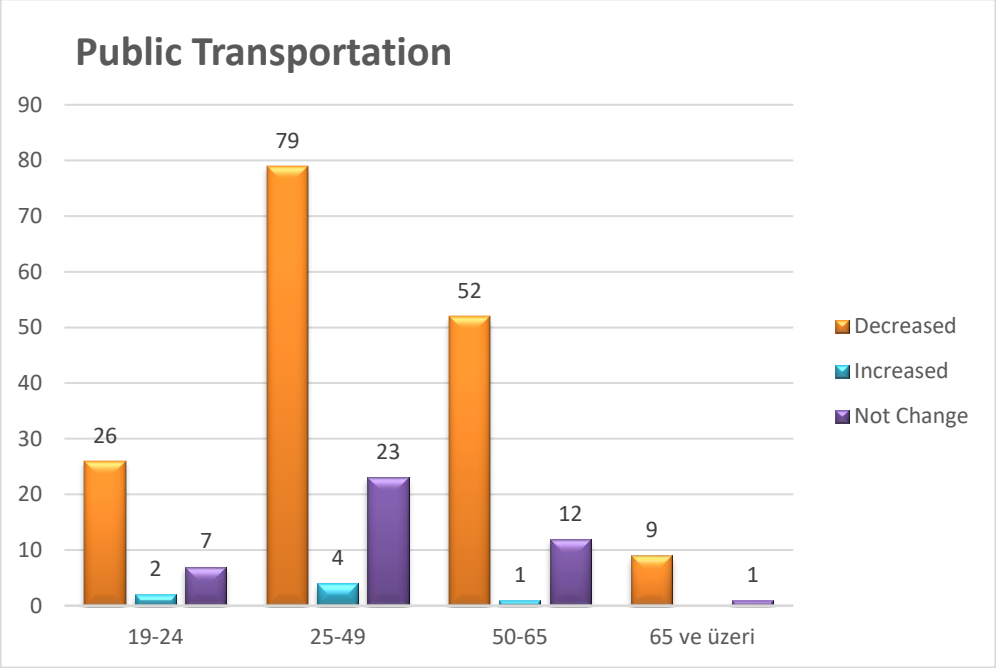

Figure 37.Results of the public transport section in question 11 by age in the second part of the survey

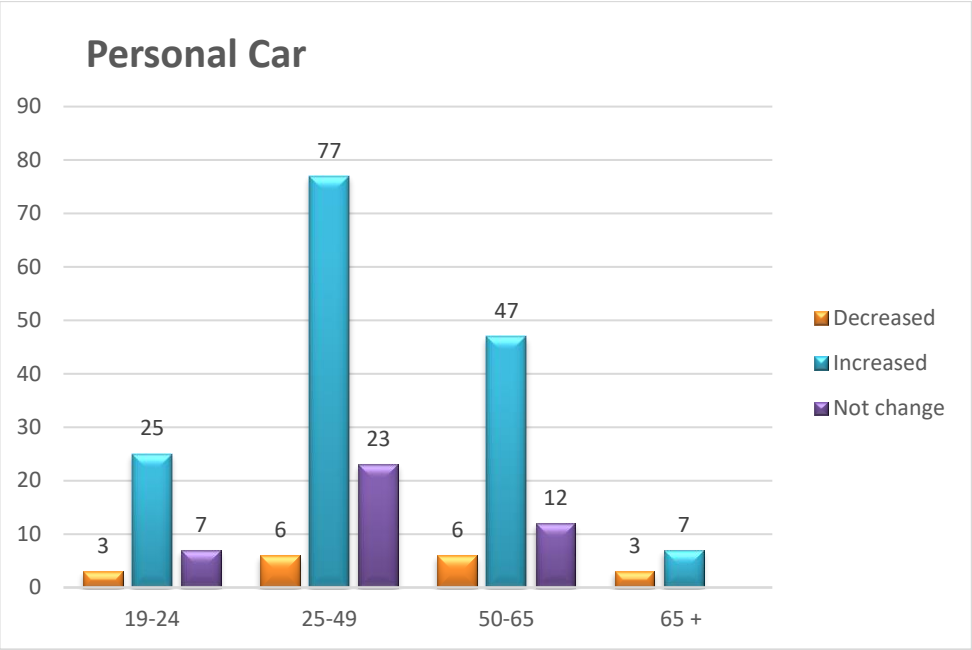

Figure 38.Results of the personal car section in question 11 by age in the second part of the survey

Firstly, personal car use has increased while public transport use has decreased for all age groups. Considering the change in public transportation habits by age, it is seen that the biggest decrease is between the ages of 25-49. Also, 26 people who among the 35 respondents ages 19-24 say their use of public transport has decreased. In this age group, 26 people say that the use of personal car has increased as is the case with people between ages of 25-49. (See Figure 37) But the situation is opposite in the case of personal car use. When we look at the 25-49 age group, it is seen that the use of personal vehicles by 77 people has increased. (See Figure 38) A similar situation exists in the 50-65 age group. In this age group, 52 people stated that their use of public transportation decreased while 47 people stated that the use of personal vehicles as car increased. (See Figure 37&38)

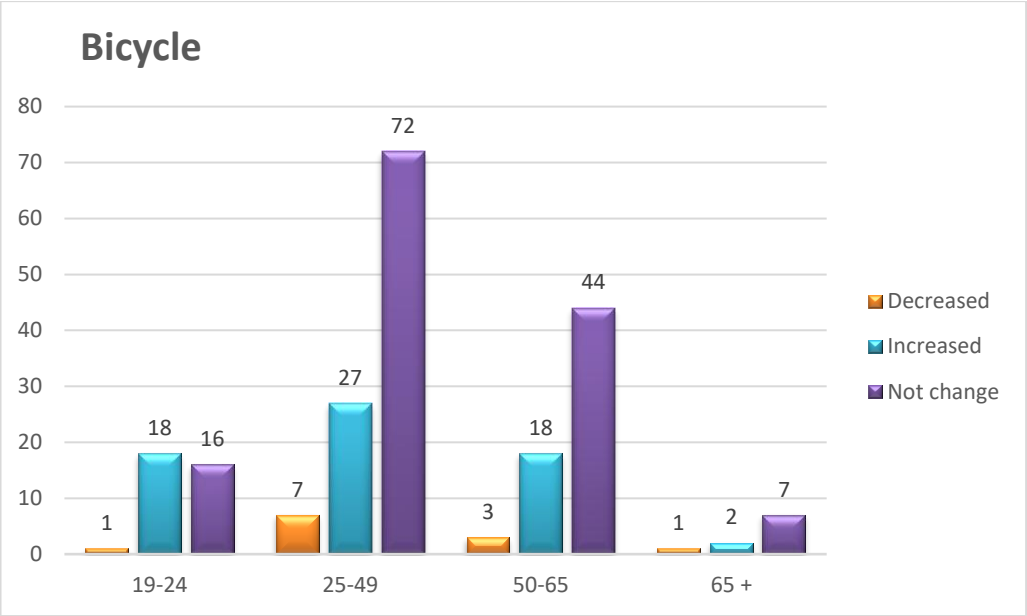

Figure 39.Results of the bicycle section in question 11 by age in the second part of the survey

When looking at the use of bicycle, all age groups indicate that there is no change in general. However, the number of people who stated that there is an increase and not change is almost the same in the 19-24 age group. Other age group are more likely to own a personal car than this age group. Therefore, these people may have increased their use of bicycles to avoid using public transportation. (See Figure 39)

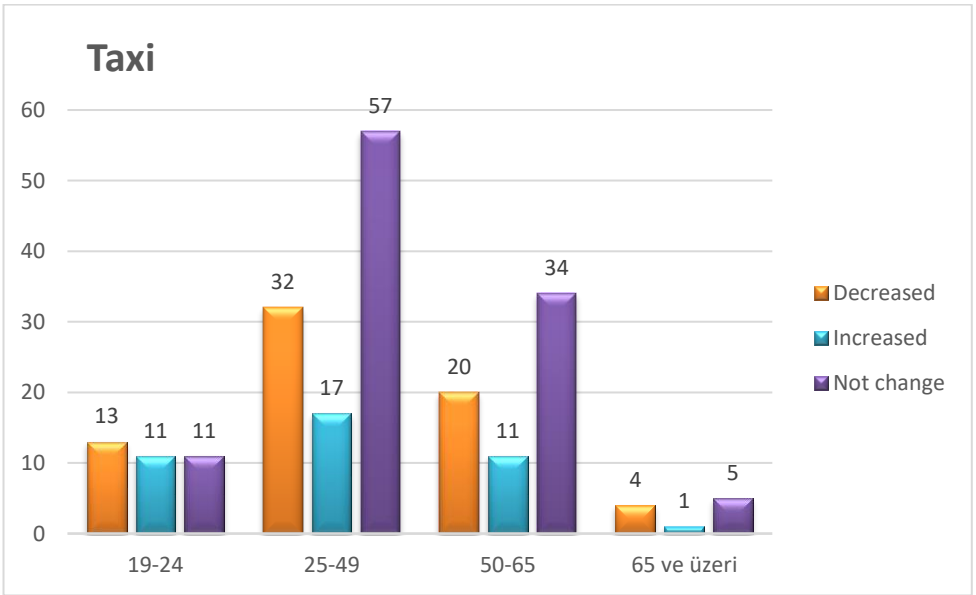

Figure 40. Results of the taxi section in question 11 by age in the second part of the survey

There is no significant change in taxi usage. The age groups of 25-49 and 50-65 mostly stated that there was no change in taxi usage. The number of people who stated that there was an increase, and no change is equal in the 19-24 age group. The number of people who stated that taxi usage decreased in this group is 2 more than those who stated that it increased and not change. (See Figure 40)

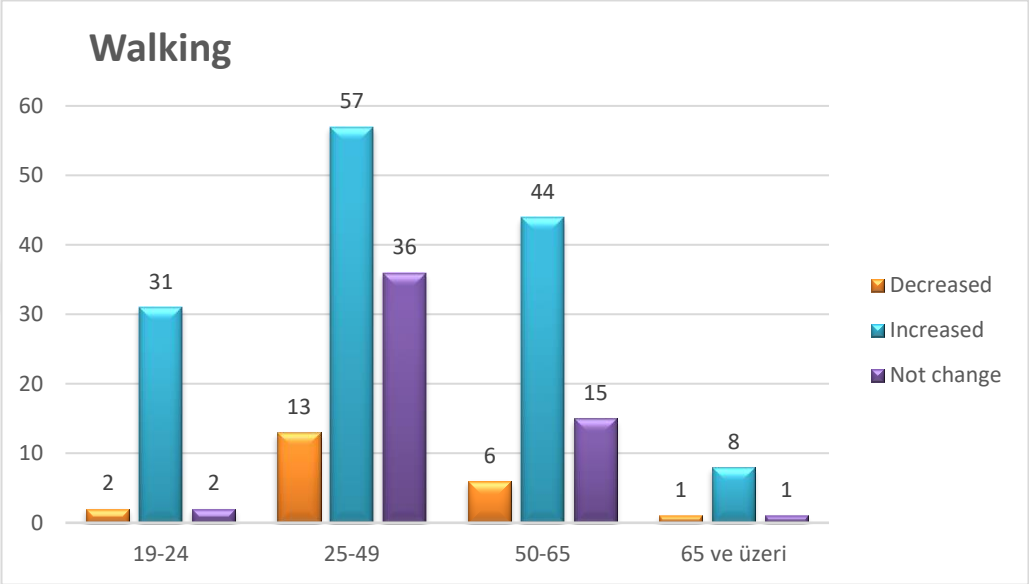

Figure 41.Results of the walking section in question 11 by age in the second part of the survey

All age groups stated that walking activity increased. Looking at all analyses, people over the age of 65 state that the use of public transportation decrease while their use of walking and own car increases in their transportation habits. Walking has become a preferred transportation habit for the elderly during the quarantine period. Because people over the age of 65 could not leave the house due to the rules set by the state and walking activity is good for them. Also, the same situation is true for young people. According to the analysis, young people mostly prefer to take a walk.

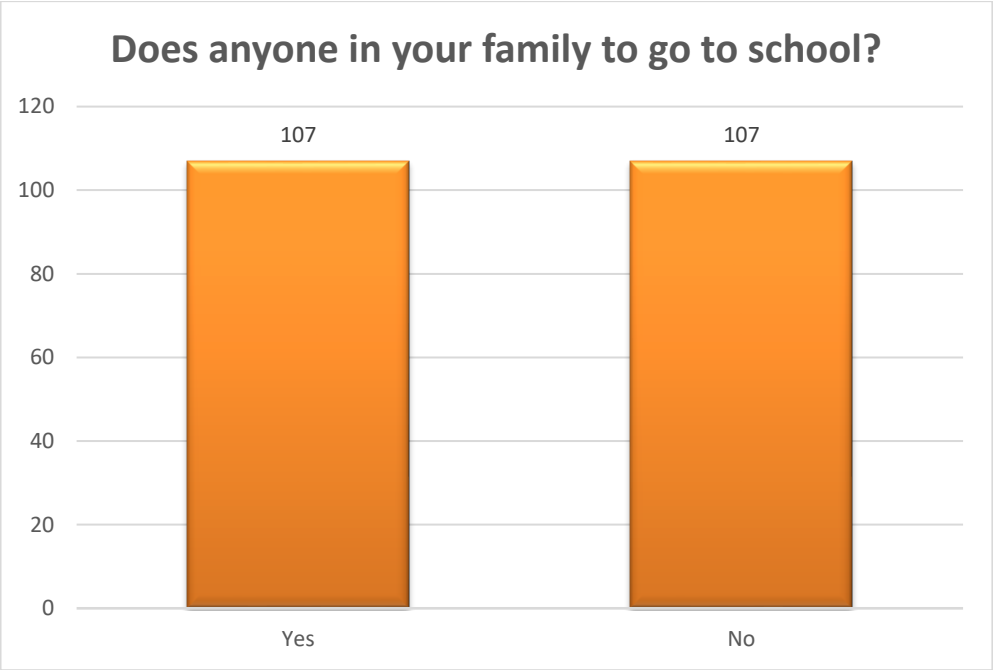

Figure 42.Question 12 Result in the second part of the survey

The twelfth question of the survey is “Does anyone in your family to go to school?” 214 participants answered this question, and 2 participants did not answer this question. Among the people who answered this question, 107 (50%) people have family members who go to school and 107 (50%) people do not have family members who go to school. The number of participants with and without a student in their family is equal.

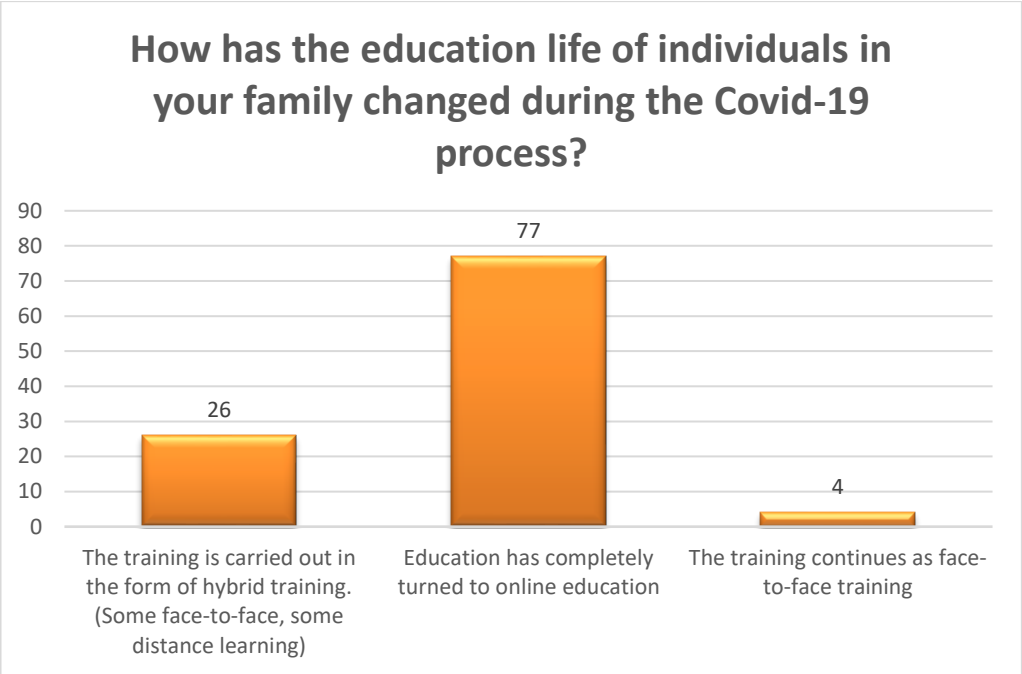

Figure 43.Question 13 Result in the second part of the survey

The thirteenth question of the survey is “How has the education life of individuals in your family changed during the Covid-19 process?” 107 participants answered this question, and 109 participants did not answer this question. This question was answered only by the participants who has students in their family. Among the individuals who went to school in the families of the participants participating in the survey, 26 (24.3%) people receive education as hybrid education during the Covid-19 process. 77 (72%) people receive training entirely online. 4 (3.7%) people continue face-to-face education. (See Figure 42) So, most of the participants state that the education has completely turned to online education.

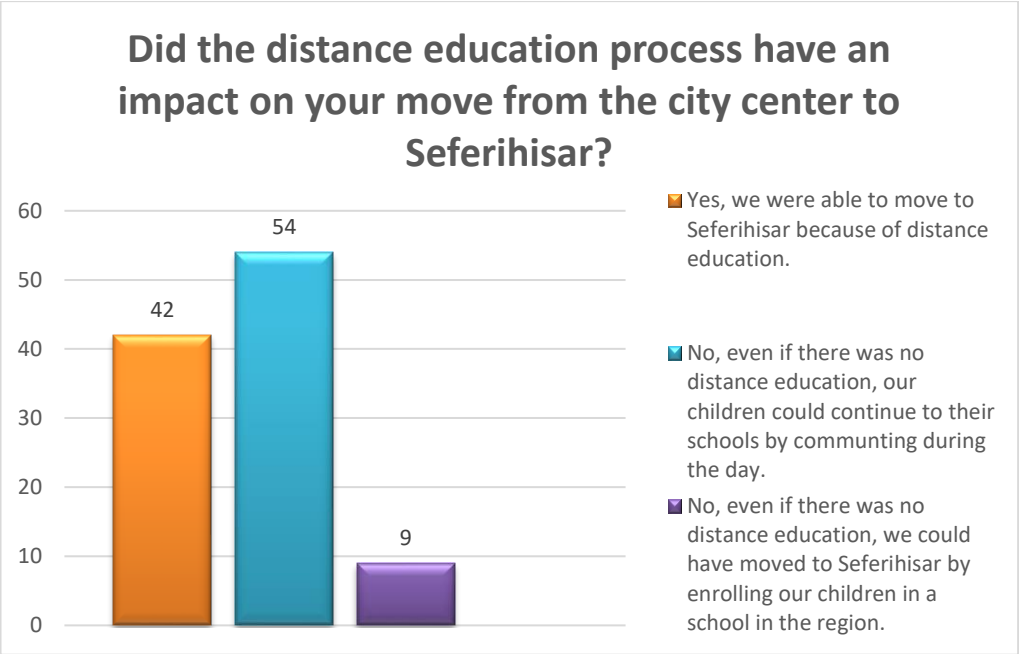

Figure 44.Question 14 Result in the second part of the survey

The fourteenth question of the survey is “Did the distance education process have an impact on your move from the city center to Seferihisar?” 105 participants answered this question, and 111 participants did not answer this question. Among the people who answered this question, distance education had an effect on the relocation of 42 (40%) people from the city center to Seferihisar, 54 (51.4%) people reported that distance education had no effect, and their children could go to school from Seferihisar. 9 (8.6%) people stated that they could move to Seferihisar even if there is no distance education. (See Figure 44) According to the analysis, most participants state that their children can attend their school in the city center due to the proximity of Seferihisar to the city. So, the close location of Seferihisar to the city has been an important factor for the region to be preferred. Also, distance education is another important reason.

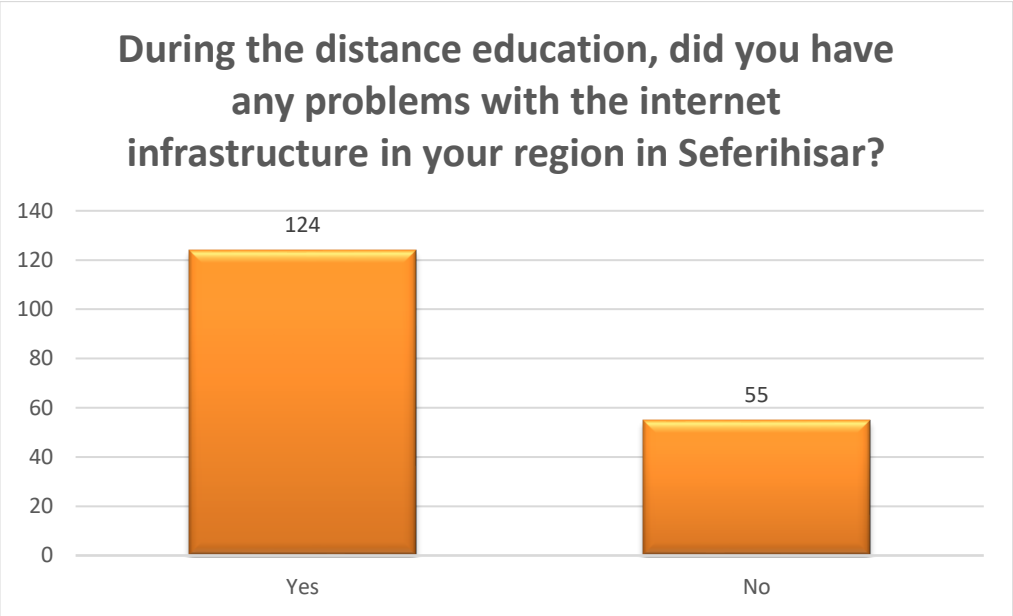

Figure 45.Question 15 Result in the second part of the survey

The fifteenth question of the survey is “During the distance education, did you have any problems with the internet infrastructure in your region in Seferihisar?” 179 participants answered this question, and 37 participants did not answer this question. Among the people who answered this question, 124 (69.2%) people had problems with the Internet infrastructure during the Covid-19 period, 55 (30.8%) had no problems. (See Figure 45)

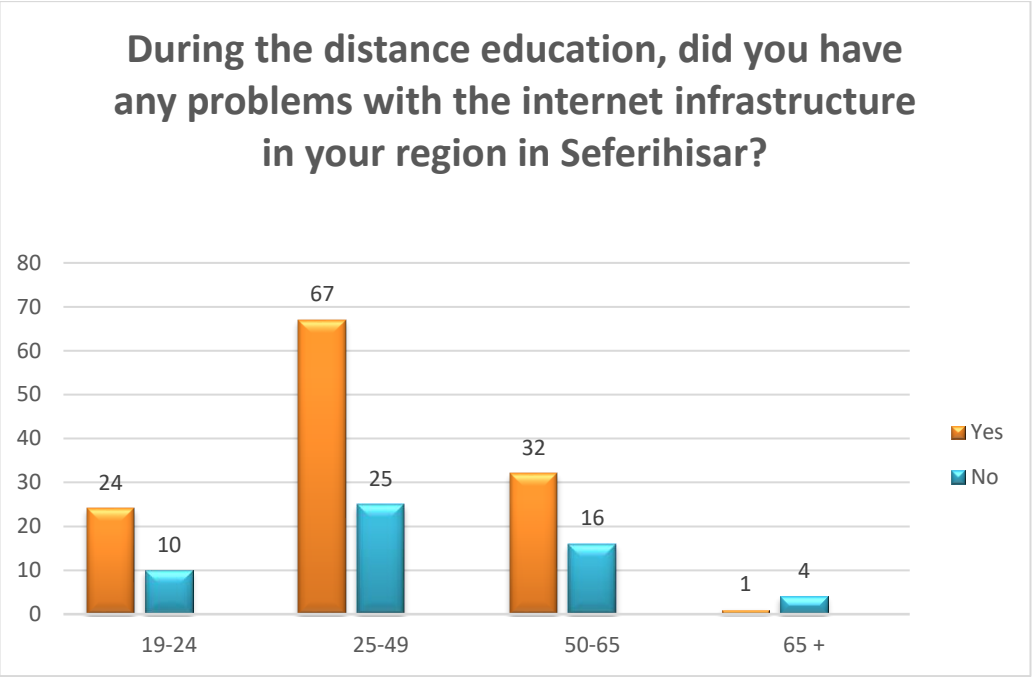

Figure 46.Question 15 Result by age in the second part of the survey

Also, all age groups except 65 years old state that they have internet infrastructure problems in the distance education process. 24 out of 34 people between the ages of 19-24 have been involved with the internet infrastructure problem. (See Figure 46) Internet infrastructure problem creates a problem in their education because of there are university students in this age group. There are both students and families between the ages of 25-49 and 50-65. In addition, there are people who work with online working system from home in these age groups. For this reason, the problem of internet infrastructure is very important for these age groups.

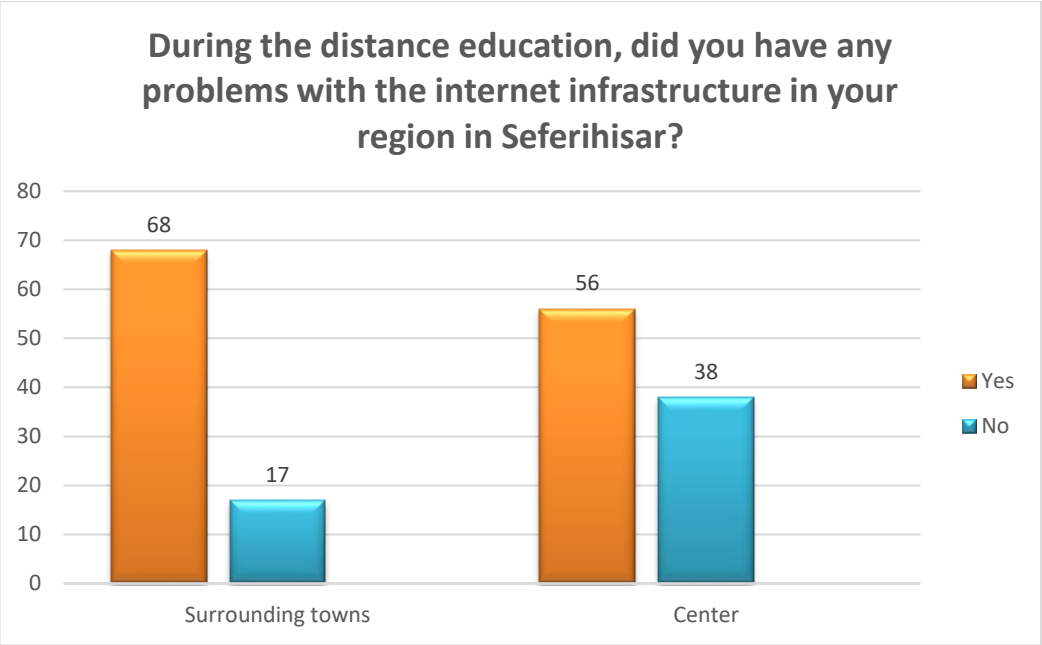

Figure 47.Question 15 Result by area in the second part of the survey

The internet infrastructure problem was not seen equally in the central and surrounding area in Seferihisar. According to the results of the survey, 68 people living in the surrounding area in Seferihisar and 56 people living in the center of Seferihisar stated that they had internet infrastructure problems. But 17 people living in the surrounding area in Seferihisar and 38 people living in the center of Seferihisar stated that they had not internet infrastructure problems. (See Figure 47) So, people living in the center have better internet use than people living in the surrounding areas in Seferihisar.

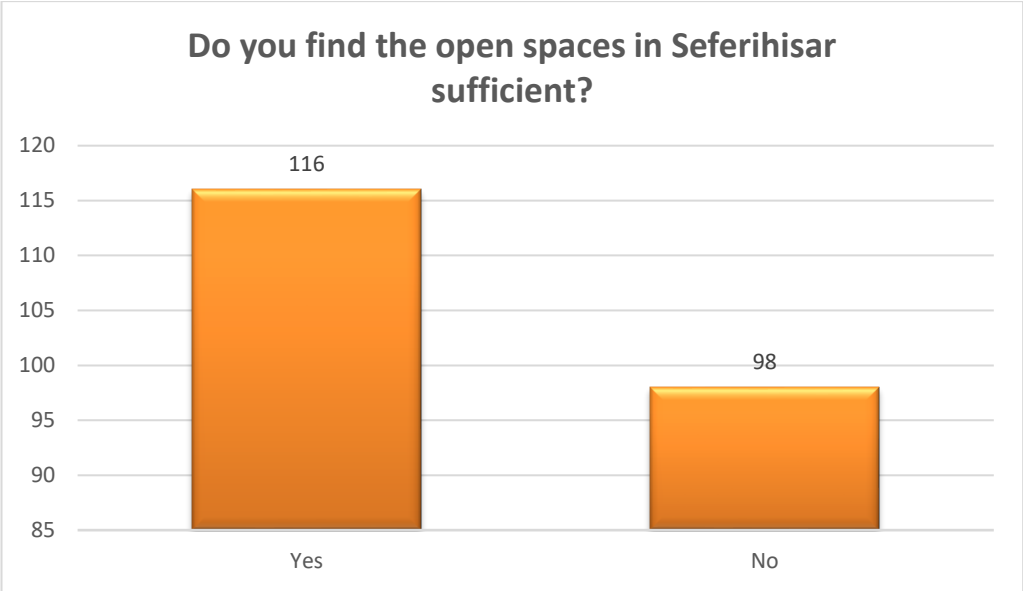

Figure 48.Question 16 Result in the second part of the survey

The sixteenth question of the survey is “Do you find the open spaces in Seferihisar sufficient?” 214 participants answered this question, and 2 participants did not answer this question. Among the people who answered this question, 116 (54%) find the open spaces in Seferihisar sufficient, while 98 (46%) people do not find the open spaces sufficient.

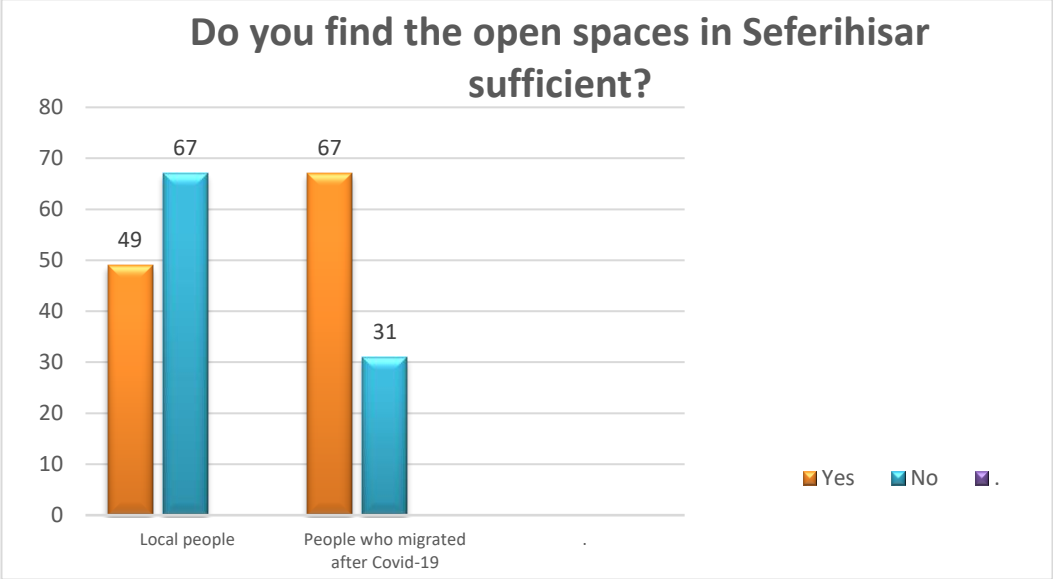

Figure 49.Question 16 Result by local and migrated people in the second part of the survey

In the question "Do you find the open spaces in Seferihisar sufficient", different results were seen between locals and those who migrated later. According to the results, the number of people who are satisfied with the people who migrated after Covid-19 although the number of people who are dissatisfied with open spaces in local people is high. This may be an indication that people who settled in the region after Covid-19 are satisfied with open spaces because they live in their summer houses.

Participants who answered no to question 16 were asked **"What are your expectations from open spaces in Seferihisar?**" in question 17 and 92 participants answered this question. More than half of the participants stated the lack of green space in Seferihisar. Therefore, increasing parks and green spaces is the most popular answer to this question. Participants stated that open and green areas where they can socialize and spend quality time should be increased, and arrangements should be made for squares, parks, and gardens. Also, parking problem is also seen as the second most common answer. For this reason, it is necessary to produce open or closed parking solutions. In addition, it is stated that the number of open sports areas should be increased, and sports and activity areas should be created especially for women. Lastly, a few participants also stated that bicycle and walking paths should be increased.

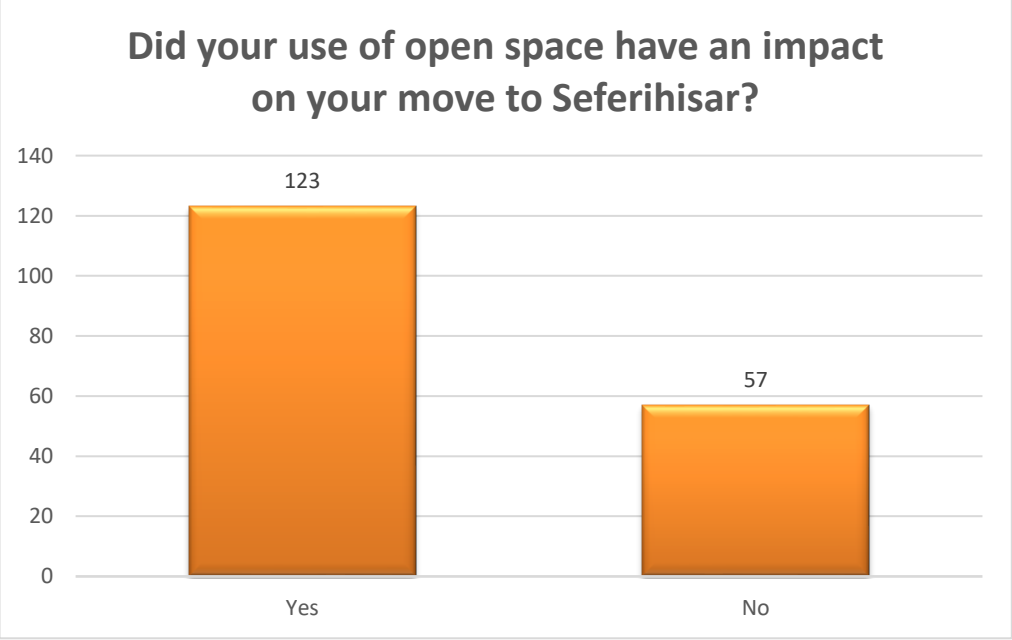

Figure 50.Question 18 Result in the second part of the survey

The eighteenth question of the survey is “Did your use of open space have an impact on your move to Seferihisar?” 180 participants answered this question, and 36 participants did not answer this question. Among the people who answered this question, 123 (68%) people told open spaces have an effect on the relocation, while 57 (32%) people told open spaces doesn’t impact their movement decision. (See Figure 50) As a requirement of the pandemic, people have fled the city and headed to small areas where less population lives. Because the open spaces in small towns can be used more easily than cities causing people to relax during the pandemic process.

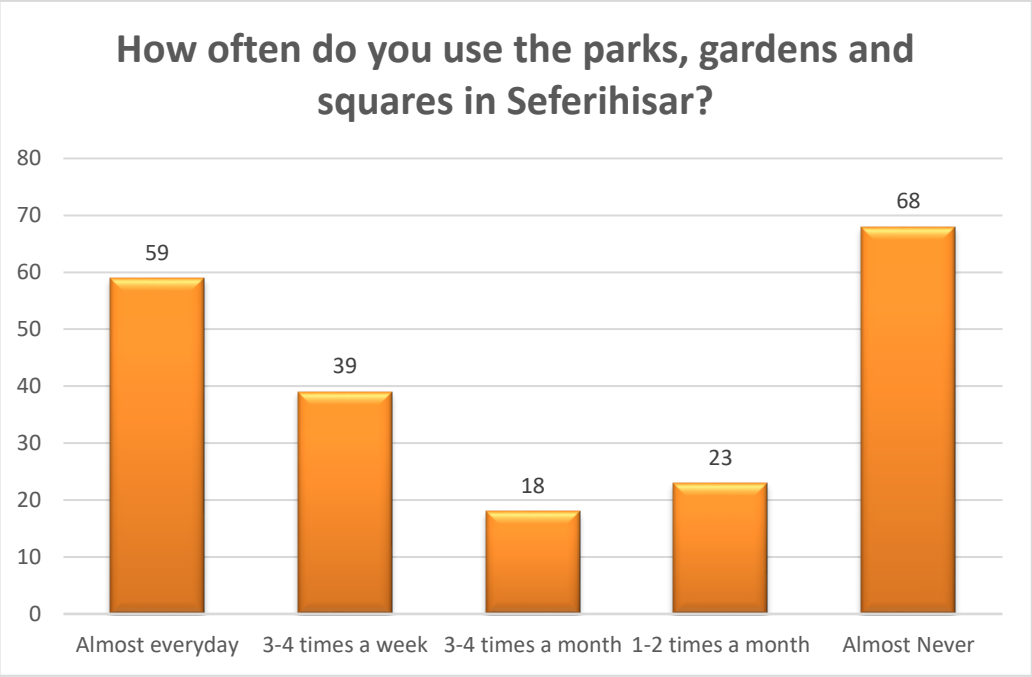

Figure 51.Question 19 Result in the second part of the survey

The nineteenth question of the survey is “How often do you use the parks, gardens and squares in Seferihisar?” 207 participants answered this question, and 9 participants did not answer this question. Among the people who answered this question, 59 (28.5%) people every day, 39 (18.9%) people a few days a week, 23 (11.1%) people once a month, 18 (8.37%) people several times a month, and 68 (32.9%) people never use the parks, gardens and squares located in Seferihisar. (See Figure 51) The answers to this question are divided. 68 people do not use parks, gardens and squares probably s they are concerned about the effect of the virus. By using urban furniture and design elements that enable people to maintain their social distance, the frequency of use of areas such as parks, gardens and squares can be increased.

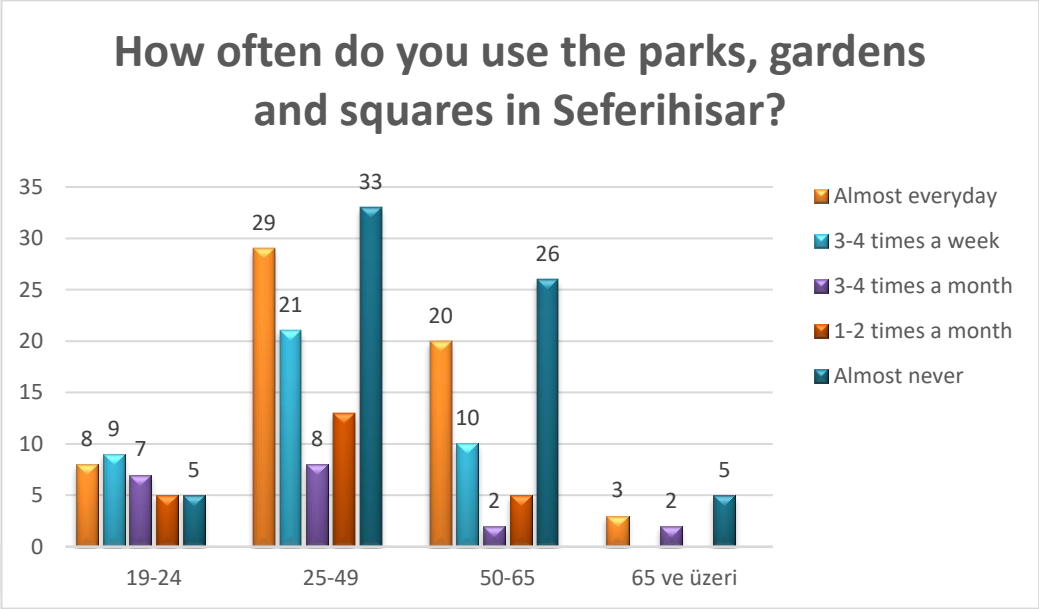

Figure 52.Question 19 Result by age in the second part of the survey

When the results are analyzed by age, it is seen that people over the age of 65 almost never use it. But, in the 25-49 and 50-65 age group, the number of people who almost never use is higher than those who use it occasionally. (See Figure 52) This situation shows that individuals of all ages do not spend a lot of time outside because they are concerned about the virus.

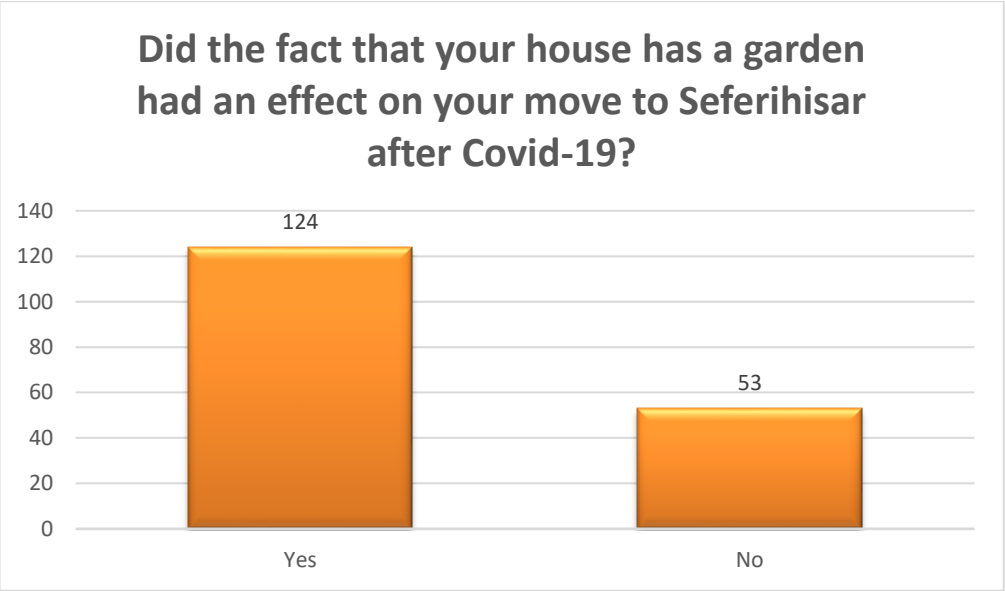

Figure 53.Question 20 Result in the second part of the survey

The twentieth question of the survey is “Did the fact that your house has a garden had an effect on your move to Seferihisar after Covid-19?” 177 participants answered this question, and 39 participants did not answer this question. Among the people who answered this question, 124 (70%) people moved to Seferihisar because one of the reasons was that their house had a garden. The reason why 53 (30%) people moved to Seferihisar was not because their house had a garden. (See Figure 53) During the pandemic process, people living in the city were stuck in the apartment because they could not go out. Lots of people began to live in summer houses in small towns. Thus, people find a way to live more comfortably in pandemic condition.

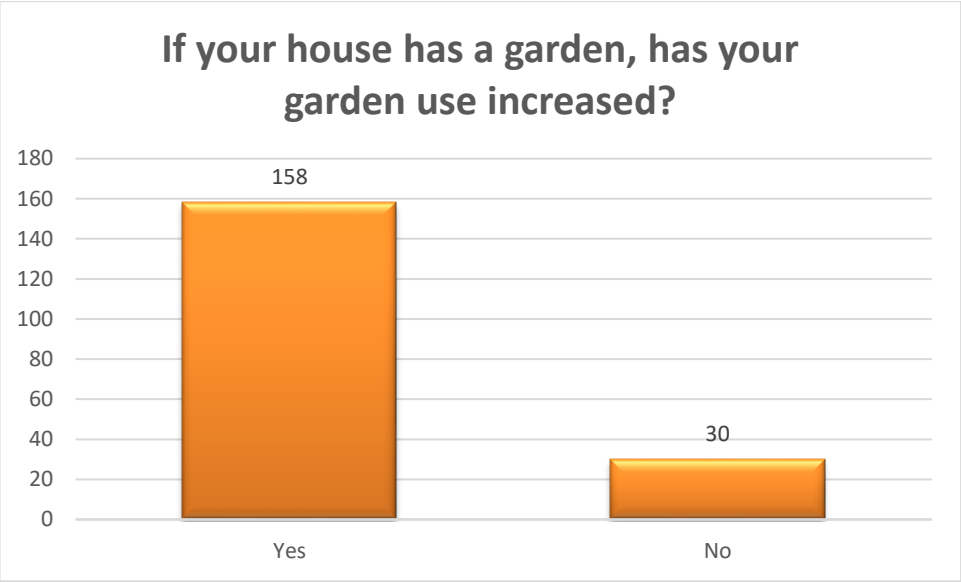

Figure 54.Question 21 Result in the second part of the survey

The twenty first question of the survey is “If your house has a garden, has your garden use increased?” 188 participants answered this question, and 28 participants did not answer this question. Among the people who answered this question, 158 (84%) people increased the use of gardens in their houses with gardens. But 30 (%16) people did not increase the use of gardens in their houses with gardens. (See Figure 54) These 30 people may have been using their gardens continuously before Covid-19.

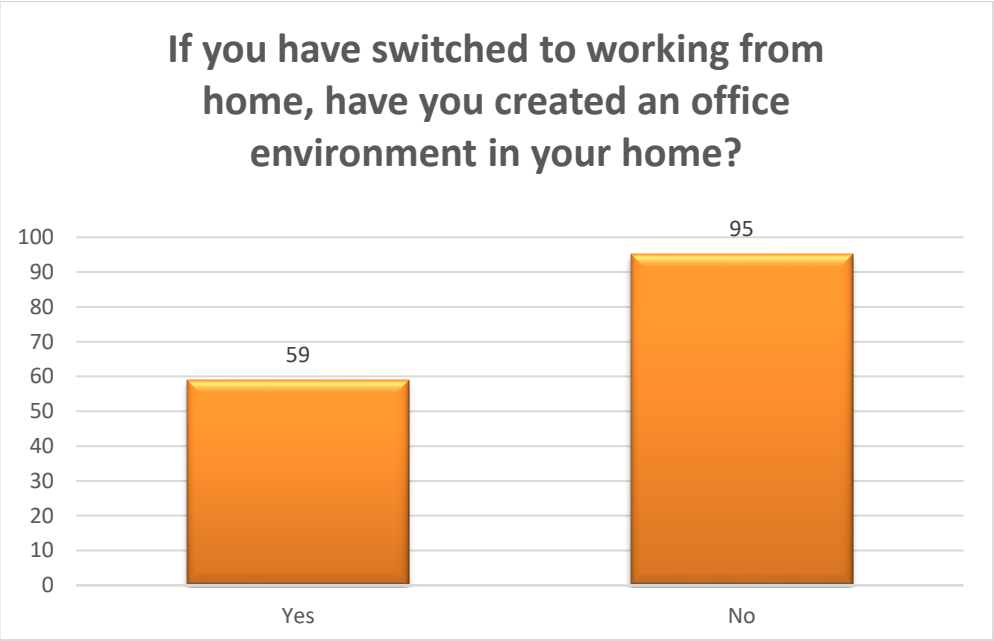

Figure 55.Question 22 Result in the second part of the survey

The twenty second question of the survey is “If you have switched to working from home, have you created an office environment in your home?” 153 participants answered this question, and 63 participants did not answer this question. Among the people who answered this question, 59 (39%) people switched to working from home model and created an office environment at home, 95 (61%) people did not create an office environment at home. (See Figure 55) The majority of the participants did not make their home areas suitable for office use. The current layout of these participants' homes may provide a suitable environment for work, or they may not have the appropriate space to create an office environment.

The twenty third question of the survey is an open-ended question, "***Did you need any renovation in your house in Seferihisar after Covid-19***? If you needed a renovation, what kind of renovation did you do? (Heating installation, kitchen renovation, terrace-garden arrangement etc.)" Participants were asked to write down their thoughts on the question. In general, the answers of the participants are roof renovation, heating renovation, winter garden construction, garden arrangement, balcony renovation, exterior insulation, kitchen renovation and bathroom renovation. Most of the arrangements made by the participants in their homes are aimed at making their summer homes suitable for winter use. Also, in order to meet their outdoor needs, they had terrace-roof renovations and balcony renovations done. They have made winter

garden and garden arrangements in order to create hobby areas in the house. They have decided in their gardens to make garden and open space use more convenient. Thanks to all this, people aim to create more resilient built environment in their living areas. Furthermore, according to the architects in the region, an increase is observed in both renovation and project works. Especially people who want to settle in the region from big cities want to build a new house for themselves. This situation causes an increase in project and application works. In addition, there is an increase in renovation works due to the fact that people who already have a summer house have their renovations done. All of these have led to an increase in construction activities in the region, an increase in interest in construction markets and a serious increase in real estate prices and rents.

The third part of the survey contains items that include the changes in the urban scale according to the structural environment of Seferihisar. The participants graded the items from 1 to 5.

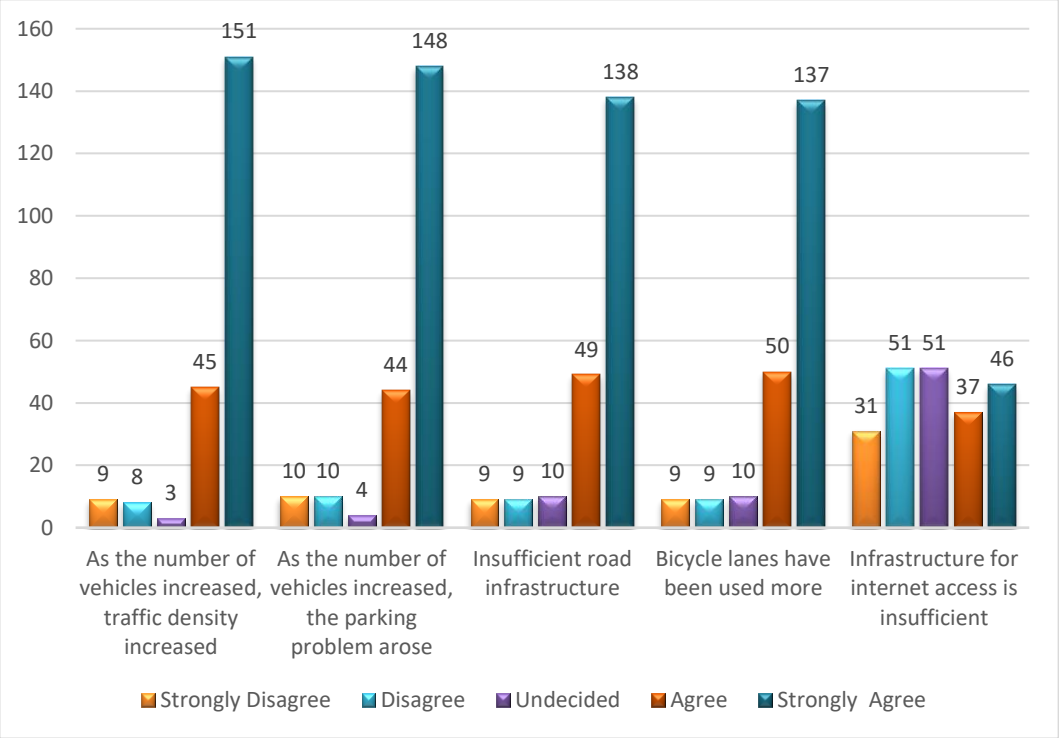

Figure 56.Questions 1-2-3-4-5 Results in the third part of the survey

To the question “The traffic density has increased due to the increase in the number of vehicles”, 9 people gave the answer of disagreement, 8 of them disagree, 3 of them undecided, 45 of them agree, and 151 of them strongly agree. To the question "Parking problem has arisen because the number of vehicles has increased", 10 people gave the answer that I strongly disagree, 10 people disagree, 4 people undecided, 44 people agree, 148 people strongly agree. To the question "The road infrastructure is insufficient", 9 people gave the answer that I do not agree at all, 9 people do not agree, 10 people are undecided, 49 people agree, and 138 people strongly agree. To the question “Bicycle lanes have started to be used more”, 9 people gave the answer that I do not agree at all, 9 people do not agree, 10 people are undecided, 50 people agree, and 137 people strongly agree. To the question "Infrastructure for internet access is insufficient", 31 people strongly disagree, 51 people disagree, 51 people undecided, 37 people agree, 46 people strongly agree. All of these show that there are problems especially with traffic, due to the increase in the number of people living in the region. Parking problems arose as the number of vehicles increased. On the other hand, internet users also increased due to the increase in the number of people who living in the region. However, no major problems were encountered with the internet infrastructure.

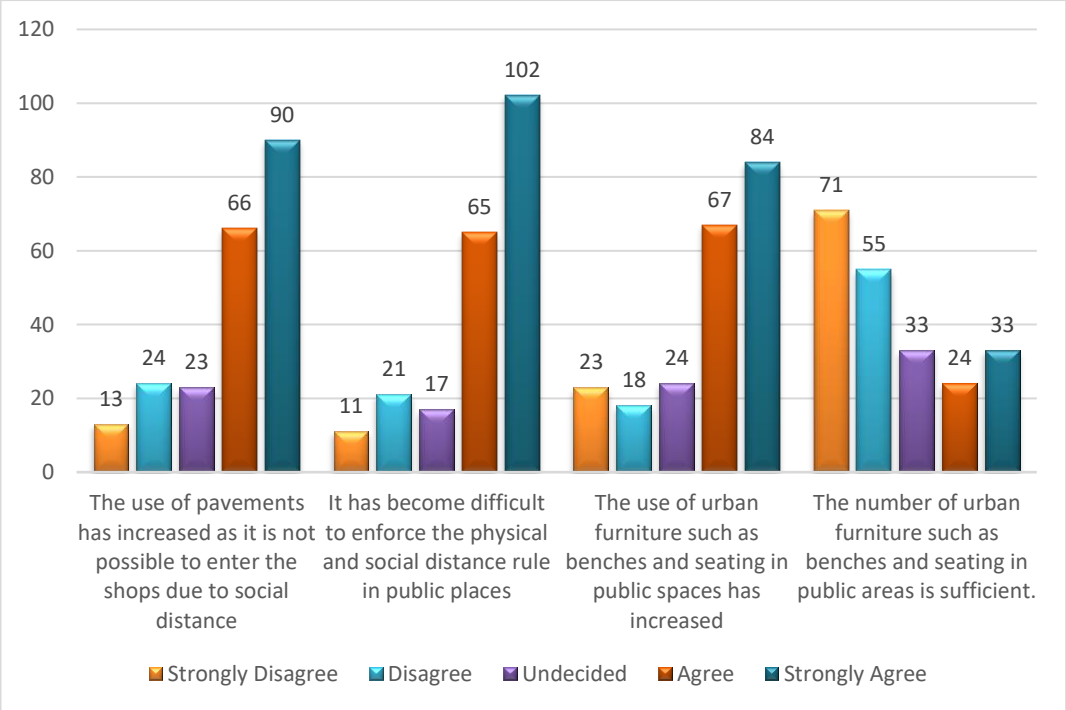

Figure 57.Questions 6-7-8-9 Results in the third part of the survey

To the question “The use of pavements has increased because it is not possible to enter the shops due to social distancing”, 13 people gave the answer that they did not agree at all, 24 people did not agree, 23 people were undecided, 66 people agreed, and 90 people strongly agreed. To the question "It has become difficult to implement the physical and social distance rule in public places", 11 people gave the answer that I strongly disagree, 21 people disagree, 17 people are undecided, 65 people agree, and 102 people strongly agree. To the question “Use of urban furniture such as benches and seats in public areas has increased”, 23 people gave the answer that I strongly disagree, 18 people disagree, 24 people undecided, 67 people agree, and 84 people strongly agree. To the question "The number of urban furniture such as benches and seating in public areas is sufficient", 25 people gave the answer that they did not agree at all, 31 of them did not agree, 36 of them undecided, 56 of them agree, and 68 of them strongly agree. During the time of Covid-19, people avoided relationships that were in contact with each other. Therefore, the demand for open and public spaces has increased. However, it has become difficult to implement the social distance rule in public spaces due to the increase in the number of people living in the region.

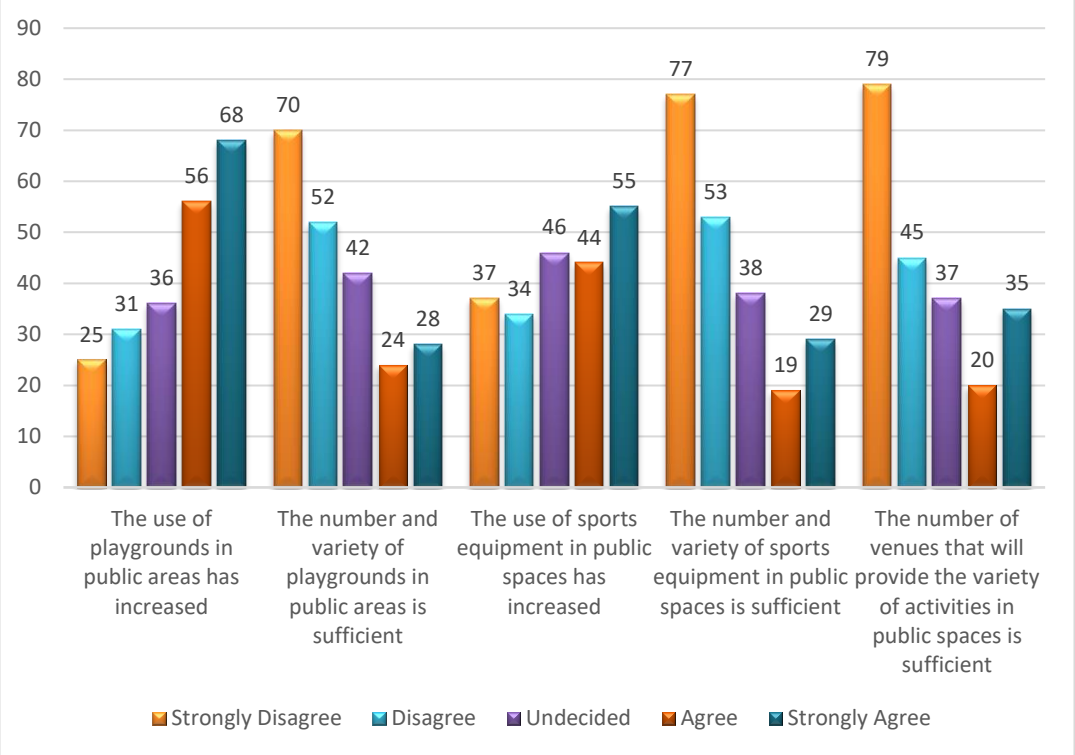

Figure 58.Questions 10-11-12-13-14 Results in the third part of the survey

To the question "The use of playgrounds in public areas has increased", 70 people gave the answer that they do not agree at all, 52 people disagree, 42 people are undecided, 24 people agree, and 28 people strongly agree. To the question “Number and variety of playgrounds in public areas is sufficient”, 37 people gave the answer that I do not agree at all, 34 people disagree, 46 people are undecided, 44 people agree, and 55 people strongly agree. To the question “The use of sports equipment in public places has increased”, 77 people gave the answer that I strongly disagree, 53 people disagree, 38 people are undecided, 19 people agree, 29 people strongly agree. To the question "Number and variety of sports equipment in public areas is sufficient", 79 people gave the answer that I do not agree at all, 45 people do not agree, 37 people are undecided, 20 people agree, and 35 people strongly agree. Hygiene has become the most important point in people's lives with Covid-19. According to analysis, there is a decrease in the use of social tools in public spaces such as sports equipment and children's playgrounds. Because people take care not to touch the tools that each other touches in order to prevents the spread of the disease. In addition, they do not find the number and variety of these tools sufficient.

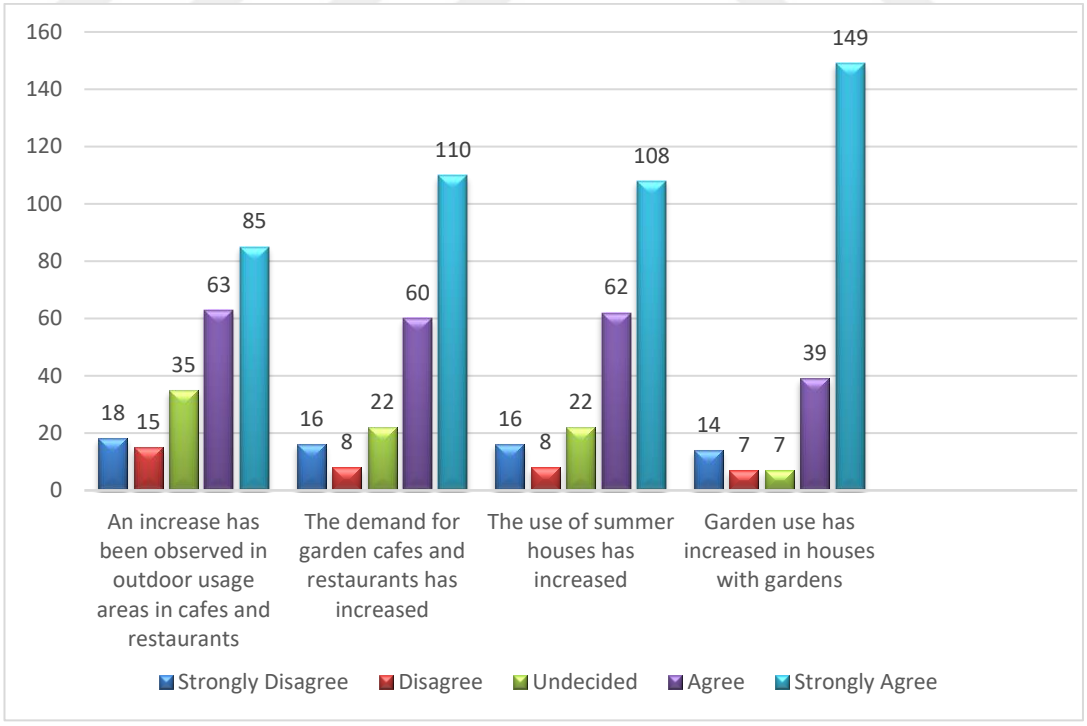

Figure 59.Questions 15-16-17-18-19 Results in the third part of the survey

To the question "The number of venues that will provide the diversity of activities in public spaces is sufficient", 18 participants gave the answer that I do not agree at all, 15 people do not agree, 35 people are undecided, 63 people agree, and 85 people strongly agree. To the question "There has been an increase in outdoor usage areas in cafes and restaurants", 16 people gave the answer that I strongly disagree, 8 people disagree, 22 people undecided, 60 agree and 110 strongly agree. To the question “The demand for cafes and restaurants with gardens has increased”, 16 people gave the answer that they do not agree at all, 8 people disagree, 22 people are undecided, 62 people agree, and 108 people strongly agree. To the question “The use of summer houses has increased”, 14 people gave the answer that I strongly disagree, 7 people disagree, 7 people undecided, 39 people agree, and 149 people strongly agree. To the question “The use of gardens in houses with gardens has increased”, 14 people gave the answer that they do not agree at all, 8 people disagree, 9 people are undecided, 42 people agree, and 143 people strongly agree. According to analysis, there is an increase in people’s use of open spaces considering the built environment with Covid-19 process. Not only the use of the garden in the houses has increased but also an increase is observed in the use of open spaces / gardens in café and restaurants.

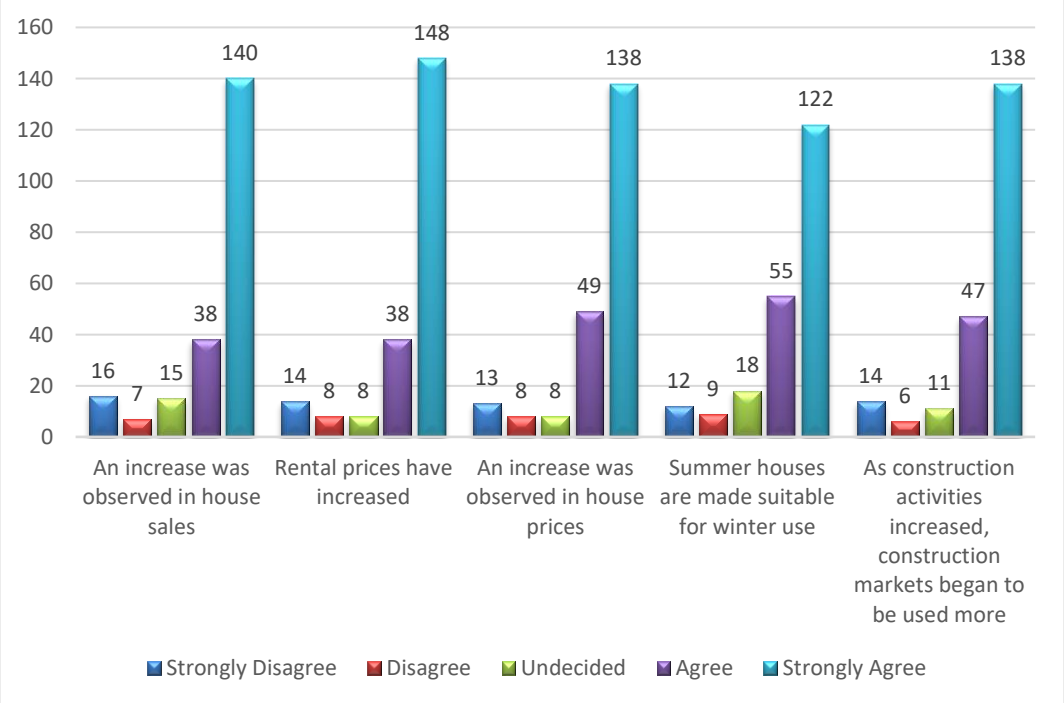

Figure 60.Questions 19- 20-21-22-23 Results in the third part of the survey

To the question “There has been an increase in house sales”, 16 people gave the answer that I strongly disagree, 7 people disagree, 15 people undecided, 38 people agree, and 140 people strongly agree. To the question "There has been an increase in rental prices", 14 people gave the answer that they do not agree at all, 8 people disagree, 8 people are undecided, 38 people agree, and 148 people strongly agree. To the question “There has been an increase in house prices”, 13 people gave the answer that I strongly disagree, 8 people disagree, 8 people are undecided, 49 people agree, and 138 people strongly agree. To the question "Summer houses have been made suitable for winter use", 12 people gave the answer that I strongly disagree, 9 people disagree, 18 people are undecided, 55 people agree, and 122 people strongly agree. To the question “As construction activities increased, construction markets started to be used more”, 14 (6.5%) people gave the answer that I strongly disagree, 6 (3.5%) people disagree, 11 (5%) people undecided, 47 people agree and 138 people strongly agree. There is an increase in house sales and rents as the demand for houses with gardens increases. This increase was also reflected in the prices and caused them to increase. Also, people continued to use their summer houses throughout the winter. Therefore, they have made some changes in order to make their houses suitable for winter.

The last question of survey is an open-ended question. “Have you observed other changes or have any expectations regarding the built environment?” was asked. If so, please specify. The answers are shown in Figure 58.

CHANGES	EXPECTATION
There was a return to detached and village houses.	The architecture needs to be corrected.
Population growth occurs due to migration.	Excessive migration should be prevented.
Population growth has led to an increase in housing.	Housing and population growth should be prevented.
Interest in green and open spaces has increased.	The number of open, green and social areas should be increased.
Demand for detached houses has increased.	Roads need to be fixed.
There has been an increase in municipal cleaning services.	Walking areas for pedestrians should be increased.
The use of public spaces in houses without a garden has increased, but the number of spaces has decreased due to social distance and population growth.	Due to the risk of waiting in closed areas during the pandemic process, more open spaces should be created in public institutions.
Due to the increase in vehicles, traffic and parking problems have occurred.	A solution to the parking and traffic problem needs to be found.
There has been a lack of urban furniture in places where queues are expected and the number of people is limited, such as in front of the bank.	Daily shopping areas such as markets and greengrocers should be increased for people who living in the surrounding areas of Seferihisar.
	It is necessary to build a bicycle path.

Figure 61.Changes and expectations in the built environment according to the survey results

4.5. Discussion and Assessment of Survey Results

Cities are the centers of economic growth and innovation, home to the majority of the world's population and have been developing and changing day by day since they were founded. With urbanization process, cities are faced with unexpected changes and uncertainties and this situation leads to the complex and uncontrolled growth of cities. Cities become vulnerable to urban density, urbanization speed and many risks arising from human and nature. At this point, it is important to determine how urban planning and design approaches will be associated with the social dimension. Urban planning and urban design have an important role in the management of risks that may occur in social, economic, or environmental terms, and it makes cities more resistant to various risks thanks to this role. It is seen that pandemics, one of these risks, have caused significant changes in cities and urban planning approaches throughout human history (Yıldırım and Özmertyurt, 2021). In this point, when the relationship between pandemics and cities is examined the concept of urban resilience comes to the fore in the literature. Urban resilience is considered as a multidimensional approach that enables cities to successfully manage the changes to which they are exposed. Also, urban resilience aims to create disaster resilient societies by providing less damage and faster recovery in the event of a disaster as stated in the literature. Urban resilience has four different dimensions as metabolic flows, governance networks, social dynamics, and the built environment. Built environment refers to different ecological and urban landscapes and living spaces and ideologies, building designs, transportation activities also support the development of the built environment (Galantini and Tezer, 2011). Also, according to Altun (2021) urban resilience can be grouped under three main topics as social, disaster and ecological resilience. When the resilience to disasters is examined, Godschalk (2003) stated that urban resilience and the built environment must be resilient and flexible to unexpected changes and disasters. In short, cities must prevent the negative effects of the risks posed by disasters.

Considering the Covid-19 pandemic which is occurring and spreading rapidly all over the world today, it is seen that the impact of cities on health behaviors and the contagion of the disease necessitates a change in architectural and urban planning understandings. Many changes have occurred in daily life practices towards protection from the virus with the Covid-19 pandemic. As a result of these changes, it is an

important question what kind of changes cities will undergo while trying to cope with the pandemic and how much they can cope with these changes.

In this study, the concept of urban resilience of small towns is examined in terms of the built environment and open spaces in Covid-19 pandemic process. Many changes have occurred in people's lives and urban areas with Covid-19 pandemic which has become the biggest global problem of today (Tekeli, 2020). According to Oflaz, she emphasized 6 important points about what should be done in cities after Covid-19. These points are population density and access to basic humanitarian services, the reflection of the changing working conditions on the space, reflection of changing housing structures to the space, green and open space, transportation planning and upper-scale planning (Oflaz, 2020). In this study, the urban resilience of small cities is investigated by evaluating the changes in urban areas through Oflaz's framework.

As stated in the literature review, crowded areas have become places to be avoided due to the spread of the virus through contact and thus metropolitans with high population density have lost their attractiveness. Small towns have many advantages due to their low population so there has been a large migration from the city to the small towns in the Covid-19 process. On the other hand, many important differences such as remote working system, online education have occurred in the people's life in pandemic process. Because of these situations, people turned to their homes completely, and the home became an area that serves both business and education functions (Emekli and Zoğal, 2020). Thus, more livable houses gained importance and people preferred to live in their summer houses or second houses where they could be intertwined with nature. Especially summer houses are the most suitable houses to provide social isolation and live in prosperity (Yalçın, 2021). Therefore, small towns have become popular during the pandemic process due to reasons such as comfortable use of open spaces, easier stay at home, low population density. At this point, the urban resilience of small cities as a result of population growth has been a remarkable issue. Because this escape from big cities to small towns has brought an extra load to the region and how small towns are resilient to this load has been the subject of research. Seferihisar named Turkey's first Cittaslow was chosen while selecting the sample area within the scope of researching the urban resilience of small cities. It is seen that Seferihisar's heavy immigration during the Covid-19 process provides some advantages and disadvantages to the region. Due to the fact that the region is Cittaslow,

it is seen that many policies were implemented in order to increase the quality of life before the Covid-19 pandemic. It is observed that many innovations have been carried out in the region according to the slow city criteria since the pre-pandemic period. Studies carried out in Seferihisar within the scope of the slow city, such as the natural life policy, the design of bicycle and walking paths, the increase of green and open spaces, the producer's markets, the population balanced, and the strengthening of infrastructures are compatible with the measures to combat the pandemic. Therefore, the city has faced the Covid-19 pandemic process more flexibly and easily. In other words, these pioneering policies prepared the city for a kind of pandemic process and made the city stronger and more resilient against the pandemic compared to other small towns.

First of all, when the use of open space is taken into consideration, many measures as social distance circles or lines, social distancing furniture have been taken to increase the use of open space all over the world during the pandemic process as indicated in the literature (Koca and Tutal, 2021). In addition, it is noteworthy that regular disinfection processes are carried out in open areas due to hygiene measures. When we look at the Seferihisar region, it is seen that disinfection is carried out regularly in areas such as parks, gardens, playgrounds and sports fields in the city periphery and the benches are repositioned at intervals to ensure social distance. However, innovations such as specifying social distance rules or designing new urban furniture that can enable people to use open spaces comfortably have not taken place. According to the results of the survey, it is stated that the number of open space and urban furniture is not sufficient and should be increased.

Figure 62.Example of open space in center of Seferihisar

Figure 63.Example of park and sport areas in Seferihisar

Figure 64. Park İkizler in Akarca

Although some people use these open spaces, others take care not to use public open spaces because they are afraid of the virus. As Yalçın (2021) stated in the literature, this situation confirms the desire of people to use individual open spaces during the fight against the pandemic. The desire to use individual open space has also directed people to houses with gardens (Candan, 2020). Survey results also show that secondary houses and the use of gardens in these houses have increased with the pandemic period. Furthermore, the residences defined as summer should be made suitable for both summer and winter use with the migration to secondary residences (Günel, 2020). In this point, many renovations have been made to make the summer houses suitable for winter use in Seferihisar. According to the results of the survey, while renovations were made on basic issues such as the heating system, bathroom, and kitchen to make it suitable for winter use and also made renovations such as terrace, roof, balcony, winter garden in order to increase the outdoor use and create a hobby area at home.

On the other hand, the pandemic process has also brought about some changes in people's shopping habits. In particular, shopping malls in open areas have become more preferred due to the fear of indoor spaces (Gökkoyun, 2020). Also, since traditional marketplaces are considered risky, new design criteria such as social distance and hygiene measures between stalls have been determined for marketplaces (Aynal, 2020). Considering the summer areas in the Seferihisar region, similar changes have been made in their shopping habits, since those living in these regions stayed for 12 months after Covid-19. For example, a farmer market, which was not established before the pandemic, started to be established in the Akarca region. Also, farmer market which started with the Cittaslow movement in Sığacık and Ulamış regions continued their activities with Covid-19 measures.

Figure 65. Farmer market in Akarca

In addition, due to the increase in the number of residents living in these regions for 12 months, places such as butchers, greengrocers, and markets where they can shop within walking distance have remained opened. In this point, there is a similarity with the 15-minute city model, which is shown as a new urban design concept in the literature. This approach aims to reach the daily basic needs as soon as possible by walking or cycling (Öztaş, 2020). The approach to meeting the needs within walking distance, which took place in Seferihisar, is similar to this approach. On the other hand, with the majority of staying at home, the online shopping habit has increased for many people (Demirdöğmez et al., 2020). The results of the survey also confirm that the tendency to online shopping is high. Also, studies have been carried out to increase online shopping in the Seferihisar. Especially, online market and greengrocer movement have started for people who want to shop for markets and greengrocers without leaving the house. All food and health needs were met by the municipality with the "*social market*" project for citizens over 65 and unable to go out.

Figure 66. A supermarket opened after the pandemic in Akarca

Figure 67. A butcher opened after the pandemic in Akarca

Figure 68. A greengrocer opened after the pandemic in Sığacık

Figure 69. A market and greengrocer opened after the pandemic in Sığacık

There are also changes in the use of transportation vehicles due to the desire to maintain social distance with Covid-19. Walking and bicycle has become the most convenient means of transportations for people (Genç and Akkoç, 2020). Also, in the pandemic process, the preference for individual vehicles has increased and the use of public transportation has decreased in order to ensure social distance and prevent the spread of the virus (Yemişçioğlu and Çivici, 2020) The widespread use of private vehicles has also created traffic problems (Rosés et al., 2020) According to the survey results, all these situations also occurred in the Seferihisar region. Due to the small size of the region, walking has become the most important activity. It is also seen that the use of public transportation has increased and turned to private vehicles. On the other hand, the bicycle paths built within the Cittaslow movement before the pandemic help people to easily access bicycle use during the pandemic process. The increase in the use of private vehicles has led to an increase in traffic density and the lack of parking in the city center of Seferihisar. At this point, it can be said that the Cittaslow framework does not work well.

Figure 70.Traffic density in center of Seferihisar

Figure 71. Parking density in center of Seferihisar

As a result, small cities with less population density than cities have come to the fore all over the world during the pandemic process. In particular, as a result of working from home and online education system, people who have the opportunity have settled in their secondary homes during the pandemic process. On the other hand, the proximity of small cities to the city center is among the factors that make it easier to move. This situation causes a serious population to increase in small cities. When

Seferihisar as a small city is examined in this context, it has been observed that its population has quadrupled with the Covid-19 process. With the increase in population, how the city satisfies this pandemic and its urban resilience against the pandemic is a remarkable issue. Also, it is seen that the public works carried out before the pandemic within the Cittaslow movement in the city of Seferihisar play a role in increasing the resilience of the city. The studies carried out in the city before the pandemic are in the nature of preparation for the pandemic process. However, for a small city accustomed to being self-sufficient, this population growth has led to difficulties in the delivery of many urban services. In addition, when examined in terms of open spaces and built environment, open spaces, urban public furniture, sports fields and children's playgrounds were found insufficient by both local people and migrant population based on the survey results. Due to the increase in the number of vehicles in the region, traffic and parking problems have occurred. In addition, there has been an increase in construction activities in the region as the demand for detached houses has increased.

CHAPTER 5: CONCLUSION

With the Covid-19 pandemic process, some traditional needs have disappeared, changed or new needs have emerged. Although it is known from the past to the present that migration from rural to urban is seen as a status and cities are attractive for people due to factors such as education, health, work and social life, this situation has happened in the opposite way during the Covid-19 process. Although it is known from the past to the present that migration from rural to urban is seen as a status and cities are attractive for people due to factors such as education, health, work and social life, this situation has happened in the opposite way during the Covid-19 process. Many people who live in the city and have the opportunity have returned to their villages or settled in their summer houses. With the beginning of the migration to small cities, the population growth in the region has put pressure on the town. At this point, the urban resilience of small cities is an issue that draws attention. In this research, the resilience of small cities was examined through open and green spaces and a case study was conducted in Seferihisar, Turkey's first slow city. In the city of Seferihisar, many practices have been implemented within the framework of Cittaslow policies within the scope of combating the pandemic. Many of these policies currently implemented have been consistent with the methods and measures proposed to combat the pandemic. These pioneering policies prepare the city of Seferihisar for the pandemic and make the city resilient against the fight against the pandemic.

Considering the changing working conditions and their reflection on the space, it is seen that a transformation has started in terms of working and education conditions all over the world with the Covid-19 process. Online work from home or the hybrid education system has become widespread and education and work functions have moved to the home. This situation has led to transformation especially in houses and has been the main factor that facilitates the displacement of people. On the other hand, the interest in detached living has increased with the changing functions of the house. People who did not want to live in apartments migrated to their secondary homes. Also, access to public services and use of public furniture is easier in small towns than in big cities. When the study area of Seferihisar is examined, similar results are seen.

Seferihisar which is a small slow city, a serious population increase has been observed during the Covid-19 process. During the pandemic process, the interest in the region has increased with both the transition to online education and the transition to the home working system. On the other hand, it has become the reason for preference due to its location close to the city center. Many measures have been taken within the scope of combating the pandemic in the region. Especially since the region is Cittaslow, policies such as bike lanes and a common mind platform made before the pandemic prepare the region for the pandemic process. According to the survey results, the region is in a safe location for people who have just come to Seferihisar or who have used their secondary homes for 12 months. However, the situation for the local people living in the region has developed in the opposite way. Due to population growth, they do not feel adequately protected against the virus. On the other hand, it is seen that there is a serious parking and traffic problem in the region due to the increasing number of vehicles. In addition, some renovations such as heating, kitchen, bathroom and roof were made due to the increase in the use of the cottages, which are considered as secondary residences, or to become usable for 12 months. Especially in order to increase the use of open space, it is seen that arrangements are made in the gardens. On the other hand, when the use of open spaces in public spaces is examined, it is seen that areas such as parks, gardens, squares, playgrounds are not considered sufficient by both local people and migrants, and public furniture in these regions is not designed in accordance with pandemic conditions during the pandemic process. Considering the shopping habits, it is seen that farmer markets have been established in many regions. There are no lanes between the stalls and there are no measures for disinfection in the marketplaces although the stalls are placed in accordance with the social distance in the farmer markets. People who do not want to shop in public areas have generally turned to online shopping.

Thus, to sum up and to answer the main research question “How has the Covid-19 process impacted the urban resilience in small towns about the use of the built environment?”, in general we can conclude that there has been a large migration towards the countryside due to the fact that small towns are safer than cities. Especially the transition to the online process in education and working life has facilitated this relocation process. During the pandemic, many innovations have occurred in the urban

sense in order to adapt to the changing living standards and to protect against the virus. Especially urban furniture suitable for social distance, urban design concepts that provide easy access and transportation, creation of public and green spaces that will allow social distance, and innovations in transportation are the leading ones. It is seen that all these approaches increase the welfare of the people living in the city and thus ensure the resilience of the city. In the case of Seferihisar we can confirm these general conclusions in the context of open space and built environment. First of all, many policies such as bicycle paths and economic development policies with the concept of slow city were realized in the region before Covid-19. It is a remarkable point that the policies implemented with Cittaslow are compatible with the methods developed against the pandemic process against Covid-19. On the contrary, urban resilience is expected to be better in the Seferihisar region where the Cittaslow framework contributes. According to the survey, problems such as increased traffic and parking problems, lack of urban furniture and open space, lack of walking paths, excessive increase in house rent and sales prices were encountered. As a result of all these, in the case of Seferihisar we can say that urban resilience needs further improvement.

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APPENDICES

Appendix A – Survey Questions

ARAŞTIRMA ANKETİ
Değerli Katılımcı, Aşağıda yer alan anket formundaki bilgiler yüksek lisans tezinde değerlendirilmek üzere kullanılacaktır. Bu anket Covid-19 salgınının etkisi ile kentlerden turistik bölgelere göç sonucunda, bir turistik bölge olarak görülen Seferihisar'ın kentsel dayanıklılığını ölçmek amacıyla çeşitli sorular içermektedir. Anket soruları genel olarak değerlendirileceği için isminiz istenmeyecektir. Araştırmaya 18 yaş altı kişiler katılamayacağı için sorular 18 yaş üzeri ve Seferihisar'da yaşayan kişiler tarafından cevaplanacaktır. Araştırmaya katkıda bulunduğunuz için teşekkür ederim. **Gonca TARHAN** İzmir Ekonomi Üniversitesi- Mimarlık Yüksek Lisans Programı

KİŞİSEL BİLGİLER
Cinsiyetiniz • Kadın • Erkek
Yaşınız • 19 – 24 • 25-49 • 50-65 • 65 ve üzeri

Medeni Durumunuz

- Evli
- Bekar

Mesleğiniz

- Kamu Çalışanı
- Özel Sektör Çalışanı
- Kendi İşinin Sahibi
- Diğer (Lütfen belirtiniz)

Soru No	ANKET SORULARI
1	**Covid-19'dan önce Seferihisar'da sürekli olarak 12 ay mı yaşıyordunuz?** • Evet • Hayır
2	**1. Sorudaki cevabınız hayır ise;** **Covid-19'dan önce Seferihisar'da sezonluk olarak yaşadınız mı?** • Evet, yaz döneminde Seferihisar'da yaşadım • Evet, yaz dönemi haricinde Seferihisar'da yaşadım
3	**Covid-19'dan sonra 12 ay boyunca sürekli olarak Seferihisar'da yaşamaya başladınız mı?** • Evet • Hayır
4	**Covid-19'dan sonra Seferihisar'daki evinizi yazlık veya ikinci ev olarak mı değerlendirirsiniz?**

	• Evet • Hayır
5	**Seferihisar'da oturduğunuz bölgeyi ne şekilde tanımlarsınız?** • Merkez • Çevre Beldeler
6	**Covid-19 sürecinde kaç saat çalışıyorsunuz?** • 5 saat ve daha az • 5-9 saat arası • 9 saatten fazla
7	**Covid-19 süreci ile çalışma alışkanlıklarınız nasıl değişti?** • Evden online çalışmaya başladım • Hibrit çalışma sistemi ile çalışmaya başladım (Hem evden online hem ofisten çalışma şeklinde) • Çalışma alışkanlığımda değişiklik olmadı • Diğer (Lütfen belirtiniz)
8	**Evden online çalışmaya başladıysanız yaşadığınız bölge ile ilgili aşağıdakilerden hangisi size uygundur?** • Nüfus yoğunluğunun daha az olduğu Seferihisar'a taşındım ve salgına karşı daha güvende hissettim. • Nüfus yoğunluğunun daha az olduğu Seferihisar'a taşındım ve salgına karşı daha güvende hissetmedim.

	• 12 ay yaşadığım Seferihisar'da kaldım ve nüfus yoğunluğu arttığı için kendimi güvende hissettim. • 12 ay yaşadığım Seferihisar'da kaldım ve nüfus yoğunluğu arttığı için kendimi güvende hissetmedim.
9	**Covid-19 sürecinin alışveriş alışkanlığınıza etkisini en iyi şekilde aşağıdakilerden hangisi tanımlamaktadır?** • Online alışverişi güvenli bulmuyorum ve pandemi sürecinde dükkanlara gitmiyorum. • Online alışverişi güvenli bulmuyorum ve pandemi sürecinde hala dükkanlara gidip satın almayı tercih ediyorum. • Online alışverişi güvenli buluyorum ama pandemi sürecinde dükkanlara gitmiyorum. • Online alışverişi güvenli buluyorum ve pandemi sürecinde hala online alışveriş yapmayı tercih ediyorum.
10	**Yiyecek-içecek alışverişi için ne şekilde bir alışveriş yöntemi tercih ediyorsunuz? (Lütfen size en uygun olanları seçiniz.)** • Manav, bakkal, market alışkanlığım devam ediyor. • Açık alan olan pazarları tercih ediyorum. • Online alışveriş yapmayı tercih ediyorum. • Diğer (Lütfen belirtiniz)

<table>
<tr><td>11</td><td>Seferihisar da yaşamanız ulaşım alışkanlıklarınız üzerinde ne gibi bir değişikliğe sebep olmuştur?
<table>
<tr><th>Ulaşım Alışkanlığı</th><th>Azaldı</th><th>Çoğaldı</th><th>Değişmedi</th></tr>
<tr><td>Toplu Taşıma
(Otobüs, Minibüs vs.)</td><td></td><td></td><td></td></tr>
<tr><td>Kişisel Araç</td><td></td><td></td><td></td></tr>
<tr><td>Bisiklet</td><td></td><td></td><td></td></tr>
<tr><td>Taksi</td><td></td><td></td><td></td></tr>
<tr><td>Yürüyüş</td><td></td><td></td><td></td></tr>
</table></td></tr>
<tr><td>12</td><td>Ailenizde okula giden birey var mı?
• Var
• Yok</td></tr>
<tr><td>13</td><td>Ailenizdeki okula giden bireylerin Covid-19 sürecinde eğitim hayatı nasıl değişmiştir?
• Eğitim tamamen online eğitime döndü
• Eğitim yüz yüze eğitim olarak devam etmektedir.
• Eğitim hibrit eğitim şeklinde yapılmaktadır. (Bir kısmı yüz yüze, bir kısmı uzaktan eğitim)</td></tr>
<tr><td>14</td><td>Şehir merkezinden Seferihisar’a taşınmanızda uzaktan eğitim sürecinin etkisi oldu mu?
• Evet, uzaktan eğitim olduğu için Seferihisar’a taşınabildik.
• Hayır, uzaktan eğitim olmasa da çocuklarımızı bölgede bir okula kaydederek Seferihisar’a taşınabilirdik.</td></tr>
</table>

	• Hayır, uzaktan eğitim olmasa da çocuklarımız devam ettikleri okula gün içinde gidip gelerek devam edebilirdi.
15	**Uzaktan eğitim süresince Seferihisar'da bulunduğunuz bölgede internet altyapısı ile ilgili herhangi bir sorun yaşadınız mı?** • Evet • Hayır
16	**Seferihisar'daki açık alanları yeterli buluyor musunuz?** • Evet • Hayır
17	**16.soru için cevabınız hayır ise;** **Seferihisar'daki açık alanlardan beklentileriniz nelerdir?**
18	**Seferihisar'a taşınmanızda açık alan kullanımınızın etkisi oldu mu?** • Evet • Hayır
19	**Seferihisar'da bulunan park, bahçe, meydanları ne sıklıkla kullanıyorsunuz?** • Neredeyse her gün • Haftada 3-4 kez • Ayda 1-2 kez • Ayda 3-4 kez • Neredeyse hiç

20	**Covid-19 sonrasında Seferihisar'a taşınmanızda evinizin bahçeli olmasının etkisi oldu mu?** • Evet • Hayır
21	**Eviniz bahçeli ise bahçe kullanımınız arttı mı?** • Evet • Hayır
22	**Evden çalışma düzenine geçtiyseniz eviniz de bir ofis ortamı yarattınız mı?** • Evet • Hayır
23	**Covid-19 sonrasında Seferihisar'daki evinizde herhangi bir tadilata ihtiyaç duydunuz mu? Tadilat ihtiyacı duyduysanız ne gibi bir tadilat yaptınız? (*Isınma tesisatı, mutfak tadilatı, teras-bahçe düzenlemesi vb)***

UYARI: Aşağıda yer alan Covid-19 sürecinde Seferihisar'ın yapısal çevresi ile ilgili 1. ve 23. sorular arasını cevaplarken sağ tarafta yer alan **(1) Kesinlikle katılmıyorum, (2) Katılmıyorum, (3) Ne Katılıyorum-Ne Katılmıyorum, (4) Katılıyorum, (5) Kesinlikle Katılıyorum s**eçeneklerinden size en uygununu işaretleyiniz.

Covid-19 sürecinde Seferihisar'ın yapısal çevreside;					
	(1) Kesinlikle Katılmıyorum	**(2) Katılmıyorum**	**(3) Ne Katılıyorum/ Ne Katılmıyorum**	**(4) Katılıyorum**	**(5) Kesinlikle Katılıyorum**
1. Araç sayısı arttığı için trafik yoğunluğu artmıştır.					
2. Araç sayısı arttığı için park yeri sorunu ortaya çıkmıştır.					
3. Yol altyapısı yetersiz kalmıştır.					

4.	Bisiklet yolları daha çok kullanılmaya başlanmıştır.					
5.	İnternet erişiminde altyapı yetersiz kalmıştır.					
6.	Sosyal mesafeden dolayı dükkanların içine girilemediği için kaldırım kullanımı artmıştır.					
7.	Kamusal alanlarda fiziksel ve sosyal mesafe kuralını uygulamak zorlaşmıştır.					
8.	Kamusal alanlardaki bank, oturma yeri gibi kentsel mobilyaların kullanımı artmıştır.					
9.	Kamusal alanlardaki bank, oturma yeri gibi kentsel mobilyaların sayısı yeterlidir.					
10.	Kamusal alanlardaki çocuk parkı kullanımı artmıştır.					
11.	Kamusal alanlardaki çocuk parkı sayısı ve çeşitliliği yeterlidir.					

12. Kamusal alanlardaki spor aletlerinin kullanımı artmıştır.					
13. Kamusal alanlardaki spor aletlerinin sayısı ve çeşitliliği yeterlidir.					
14. Kamusal alanlardaki aktivite çeşitliliğini sağlayacak mekanların sayısı yeterlidir.					
15. Café ve restoranlarda dış kullanım alanlarında artış gözlemlenmiştir.					
16. Bahçeli café ve restoranlara talep artmıştır.					
17. Yazlık evlerin kullanımı artmıştır.					
18. Bahçeli evlerde bahçe kullanımı artmıştır.					
19. Ev satışlarında artış gözlemlenmiştir.					
20. Kira fiyatlarında artış gözlemlenmiştir.					
21. Ev fiyatlarında artış gözlemlenmiştir.					

22. Yazlık evler kış kullanımına uygun hale getirilmiştir.					
23. İnşaat faaliyetleri arttığı için yapı marketler daha çok kullanılmaya başlanmıştır.					

24. Yapısal çevre ile ilgili sizin gözlemlediğiniz farklı değişiklikler veya beklentileriniz var mıdır? Varsa lütfen belirtiniz.

Appendix B – Ethical Board Approva

SAYI : B.30.2.İEÜ.0.05.05-**020**-*143* 28.05.2021

KONU : Etik Kurul Kararı hk.

Sayın Doç.Dr. Aslı Ceylan Öner ve Gonca Tarhan,

Covid-19 Pandemi Sürecinde Küçük Turistik Bir Kent Olarak Seferihisar'ın Kentsel Dayanıklılığının Ölçülmesi " başlıklı projenizin etik uygunluğu konusundaki başvurunuz sonuçlanmıştır.

Etik Kurulumuz 28.05.2021 tarihinde sizin başvurunuzun da içinde bulunduğu bir gündemle toplanmış ve Etik Kurul üyeleri projeleri incelemiştir.

Sonuçta 28.05.2021 tarih ve **Covid-19 Pandemi Sürecinde Küçük Turistik Bir Kent Olarak Seferihisar'ın Kentsel Dayanıklılığının Ölçülmesi"** konulu projenizin etik açıdan uygun olduğuna oy birliği ile karar verilmiştir.

Gereği için bilgilerinize sunarım.

Saygılarımla,

[redacted]

Prof. Dr. Murat Bengisu

Etik Kurul Başkanı