EXPLORING DETERMINANTS OF MICRO-MOBILITY ADOPTION FOR ENVIRONMENTAL SUSTAINABILITY

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by
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ABSTRACT

EXPLORING DETERMINANTS OF MICRO-MOBILITY ADOPTION FOR ENVIRONMENTAL SUSTAINABILITY

The current reality of the climate crisis necessitates urgent actions to mitigate carbon emissions. Transportation, a major contributor to greenhouse gas emissions, accounts for approximately 11% of total emissions. The choices individuals make regarding transportation directly impact carbon emissions. This study focuses on the adoption of transportation and micro mobility as sustainable transportation methods, both in daily life and business settings, with an emphasis on environmental sustainability. The research comprises an in-depth semi-structured interview and two quantitative studies.

The collected data was analyzed using various statistical techniques, including Cluster Analysis, Correlation Analysis, Descriptive Statistics, Reliability Analysis, and Regression Analysis. The results highlight the importance of nine factors in relation to individuals' transportation and micro mobility adaptation for environmental sustainability. These factors are Attitude, Social Norms, Involvement, Perceived Usefulness, Transparency, Concern, Regulation, External Influence, and Use.

This study provides insights into the factors that influence individuals' choices regarding transportation and micro mobility for environmental sustainability. The findings contribute to our understanding of the key factors that shape individuals' attitudes and behaviors towards sustainable transportation options. The results can inform policymakers, urban planners, and transportation authorities in developing strategies and interventions to promote environmentally sustainable transportation practices.

ÖZET

ÇEVRESEL SÜRDÜRÜLEBİLİRLİK İÇİN MİKRO-MOBİLİTENİN BENİMSENMESİNDE BELİRLEYİCİLERİN ARAŞTIRILMASI

Günümüzde iklim krizi gerçeği kaçınılmaz bir hal almıştır. Karbon emisyonlarına katkıda bulunan sektörler arasında ulaşım, toplam emisyonun yaklaşık %11'ine denk gelen büyük bir paya sahiptir. Toplu taşıma, bisiklet, yürüme veya özel araçlara yönelik tercihlerimiz, doğrudan karbon emisyonlarını etkilemektedir. Bu çalışmada, günlük hayat ve iş ortamlarında çevresel sürdürülebilirlik odaklı olarak taşıma ve mikro hareketlilik yöntemlerinin benimsenmesi incelenmektedir. Araştırma, derinlemesine yarı yapılandırılmış görüşmeler ve iki adet nicel çalışmadan oluşmaktadır.

Toplanan veriler, Küme Analizi, Korelasyon Analizi, Tanımlayıcı İstatistikler, Güvenirlik Analizi ve Regresyon Analizi gibi çeşitli istatistiksel teknikler kullanılarak analiz edilmiştir. Sonuçlar, ulaşım ve mikro hareketlilik adaptasyonunda çevresel sürdürülebilirlik bakımından etkili olan dokuz faktörün önemini vurgulamaktadır. Bu faktörler Tutum, Sosyal Normlar, Katılım, Algılanan Fayda, Şeffaflık, Endişe, Düzenleme, Dış Etki ve Kullanım olarak belirlenmiştir.

Bu çalışma, çevresel sürdürülebilirlik açısından ulaşım ve mikro hareketlilik konusunda bireylerin tercihlerini etkileyen faktörleri keşfetmektedir. Elde edilen bulgular, sürdürülebilir ulaşım seçeneklerine yönelik tutum ve davranışları şekillendiren temel faktörlerin anlaşılmasına katkı sağlamaktadır. Sonuçlar, politika yapıcılar, kentsel planlamacılar ve ulaşım otoriteleri için çevresel olarak sürdürülebilir ulaşım uygulamalarını teşvik etmek için stratejiler ve müdahaleler geliştirme konusunda yol gösterici olabilir.

To everyone who has touched my life and to everyone whose life I have touched...

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CHAPTER 1

INTRODUCTION

The observed increases in carbon dioxide concentration have led to many serious environmental problems such as climate change, sea level rise and species extinction. Climate change is one of the most serious problems of our time and this is an undeniable fact. Climate change creates sustainability problems that are getting more complex day by day (Kates et al. 2001) (Sol and Wals 2015). Furthermore "Environmental sustainability is a real, colossal, and present problem that must be solved with some haste, in case there is a tipping point beyond which global warming, rising oceans, and ocean acidification cannot be reversed for hundreds of thousands of years, if ever." (Malhotra, Melville, and Watson 2013).

As we observe social-global media in general, it is evident that there is a prevailing sense of concern regarding the climate crisis. The climate crisis is increasing and people, states and organizations are taking action, both with the established NGOs, with climate journalism and with organizations such as the EU and the COP. With the development of social media, people began to be more aware and learning. We see that people are generally aware of the climate crisis. However, we see that if they did not receive training on this issue, they did not have an idea about what to do for a solution and did not think much about this issue before (Kaplan, Çorbacıoğlu, and Başoğlu 2022).

Considering the unsustainable production and consumption patterns, the negative effects of industrialization on the environment become more evident (Tseng et al. 2018). In the 20th and 21st centuries, with the acceleration of economic, technological and industrial developments and with the excessive consumption of natural resources, the rate of deterioration of the environment, the rate of formation of solid wastes and the rate and amount of greenhouse gas emissions have increased. These environmental problems not only disrupt the ecological balance, but also lead to social and economic consequences for the society. For example, in the report of insurance broker Aon in 2020, it is seen that there is a loss of 50 billion dollars in the world due to weather

disasters (See figure 1). Besides the direct effects of climate change on ecological, economic, human health and social structure (Stott, Stone, and Allen 2004) (Rosenzweig et al. 2008) (Parry et al. 2007), it is estimated that these effects will deepen in the future. And it threatens human health with an increase in diseases, injuries and deaths from heat, floods, droughts, storms and fires (Confalonieri et al. 2007). This resulting stress can have a negative impact on the mental and physical health of individuals (Doherty and Clayton 2011), and relationships can be strained (Clayton et al. 2015).

Figure 2. Cost of Global Warming

It is assumed that climate change will always happen in the future. Yet, right there and right now, it is found that we are living and being intertwined with the effects of climate change every day. Climate change manifests itself in daily life with fires, droughts, floods, temperature changes, rising sea waters, etc. way it shows. In other words, climate change is increasingly becoming the daily context and problem of the world's social, economic and political order. Although it is an important factor for environmental awareness, it is not sufficient (Whitmarsh, 2008) (Vulturius, 2018) to experience the changes that occur due to climate change individually (exposure) (Spence, 2011) (Vulturius, 2018) or to know that this risk will occur in the very near future (possibility of exposure) (Brügger 2015) (Vulturius, 2018). However, this factor

becomes more meaningful with belief in climate change (Akerlof 2013), social norms (Porter, 2014) , and long-term financial rewards (Porter 2014).

Adopting to climate change will require diverse and transformative adoptive responses, and such responses will require knowledge and action across systems (Fedele et al. 2019) (Owen 2020).

Environmental sustainability has been studied in many subjects-themes-areas and at various levels so far (Table 1, Table 2, Table 4). You can see the references of the themes mentioned in Table 1. These themes are green power, everyday life, green information system (IS), information technology (IT), mobility, agriculture, income equality divided, electronic devices, energy efficient household appliances/organic clothing, consumer, green product, green food, sustainable apparel product, green chemicals, composting, glass and electronic products, mindfulness, forest ownerty, social capital, farm, and hotels.

When we say level, we refer to countries, cities, sectors, organizations, households, and individuals adoptions in environmental sustainability. And these levels and themes have been studied together with different adoption theories. You can see table 2 for references.

Among these theories, the most used ones in this field are the theory of reasoned action (TRA), the theory of planned behavior (TPB), the technology acceptance model (TAM), the unified theory of acceptance and use of technology (UTAUT), extending the unified theory of acceptance and use of technology (UTAUT 2), diffusion of innovation theory (DOI), norm activation model (NAM), belief-action-outcome, value-attitude-behavior (VAB) can be listed as. You can see table 4 for references.

Table 1. Environmental Sustainability Themes and Related Studies

Environmental Sustainability Themes	Studies
Green Power	Arkesteijn and Oerlemans 2005, Zainudin et al. 2019, Kapoor and Dwivedi 2020, Claudy, Peterson, and O'Driscoll 2013

(cont. on next page)

Table 1. (cont.)

Environmental Sustainability Themes	Studies
Mobility	Eccarius and Lu 2020, Tanwir and Hamzah 2020, Valenzuela-Levi and Abreu 2021, Huang and Qian 2021
Green IS/IT	Shevchuk and Oinas-Kukkonen 2019, Dalvi-Esfahani and Rahman 2016
Agriculture	Bucea-Manea-Țoniș et al. 2021, Adnan et al. 2019
Income Equality Dividend	Valenzuela-Levi and Abreu 2021
Electronic Devices	Bekaroo et al. 2018
Energy Efficient Household Appliances / Organic Clothing	Zhang et al. 2019
Consumer	Roman et al. 2015
Green Product	Biswas and Roy 2015, Nath et al. 2013
Green Food	Zhu et al. 2013
Sustainable Apparel Product	Jung, Choi, and Oh 2020
Green Chemicals	Patak, Branska, and Pecinova 2021
Composting	Al Mamun et al. 2020
Glass and Electronic Products	Wan and Ha 202
Everyday Life	Castro and Sen 2022
Mindfulness	Wamsler and Brink 2018
Forest Owner	Vulturius et al. 2018
Social Capital	Wolf et al. 2010
Farm	Lioutas and Charatsari 2017
Hotels	Madanaguli et al. 2021

Table 2. Environmental Sustainability Levels and Related Studies

Levels	Studies
Countries	Valenzuela-Levi and Abreu 2021
Cities	Everett and Lamond 2014, Martinez-Juarez et al. 2019, Bucea-Manea-Țoniș et al. 2021
Sectors	Chen et al. 2020
Organizations	Xia et al. 2022, Wolf et al. 2010, Lin and Ho 2010
Households	Hayles et al. 2013, Hung and Wang 2022, Porter, Dessai, and Tompkins 2014, Carman and Zint 2020, Arkesteijn and Oerlemans 2005, Scott, Oates, and Young 2015
Individuals	Vulturius et al. 2018, Akman and Mishra 2014, Wamsler and Brink 2018, Perera, Kalantari, and Johnson 2022, Castro and Sen 2022, Akerlof et al. 2013

1.1.   Definition of Problems

Today, there is an undeniable reality: the climate crisis. While studies on environmental sustainability adoption have mostly focused on countries, cities, sectors, and organizations, the importance of individual contributions and studies on daily life have been overlooked until recently. However, it is the changes individuals make in their daily lives that can have a significant impact when combined.

By making changes in our behaviors, habits, and attitudes on an individual level, the power to create more sustainable and environmentally-friendly lives is possessed by us. These small changes can accumulate and make a substantial difference in preventing the climate crisis. Among the sectors contributing to carbon emissions, transportation stands out as one of the largest culprits, responsible for approximately 11% of total emissions (IPCC 2014).

The choices people make regarding transportation, such as opting for public transportation, bicycles, walking, or private vehicles, directly affect carbon emissions. In this study, we examine the adoption of transportation and micro mobility as sustainable transportation methods in both daily life and business settings, with a focus on environmental sustainability. In this study, "transportation" represents the modes of transportation we choose in our daily lives and for commuting to work. Examples of these modes include private car, public transportation, bicycle, electric bicycle, motorcycle, electric motorcycle, scooter, electric scooter, shared vehicle, etc.

By shedding light on the importance of individual choices in transportation, the widespread adoption of more sustainable alternatives is aimed to be encouraged by us. Through collective efforts, a significant impact can be made on mitigating the climate crisis and creating a greener future.

1.2.   Aim of the Study

In this study, our aim is to explore the factors that influence individuals' adaptation to transportation and micro mobility for environmental sustainability and to understand the overall awareness related to climate change.

We took a look at what has been done in the literature on climate change adoption, which topics have been covered in general, which domains and at what levels. What do they prefer as a means of transportation (public transport, private vehicle, bicycle, etc.) in their daily and business life? Then, how much do individuals use micro mobility methods in their daily and business life? What are the adoption factors in this regard? We searched for questions like these.

1.3. Research Questions

R1- How significantly do individuals' concerns about the climate crisis impact their decisions regarding daily transportation and their attitudes towards micro mobility?

R2- What are the primary drivers that motivate individuals to take action and adopt climate crisis-sensitive behaviors in the realm of transportation?

CHAPTER 2

LITERATURE REVIEW

Sustainable climate adoption is related to many areas and variables. In addition to the variables of adoption theories, different social practices such as mindfulness also affect sustainable climate adoption. For example; in their study, Christine Wamsler and Ebba Brink (2018) revealed that individuals with high individual mindfulness have high motivation for climate adoption.

When climate change adoption is talked about, people's knowledge/awareness and beliefs on this subject should be basically considered. Although research shows that people are gaining awareness about climate change (Roman et al. 2015) (Biswas and Roy 2015) (Kapoor and Dwivedi 2020) (Zainudin et al. 2019) still many people may not realize, consciously, or even believe in climate change. Beliefs about the timing, human cause, severity, and threat of climate change are defined as climate change beliefs (Perera, Kalantari, and Johnson 2022). The conscious adoption of an unaware or unbelieving person cannot be spoken of. In fact, cognitive factors such as climate change beliefs have also been shown to be an important factor for understanding individual adoption (Wolf and Moser 2011) (Frank, Eakin, and López-Carr 2011)(O'Brien 2009) (Patt and Schröter 2008). Finds strong positive relationships between climate change beliefs, personal environmental norms and environmentally sensitive behavior (Perera, Kalantari, and Johnson 2022). Additionally it has shown that climate change awareness and action is much better than personal belief in climate change than income, gender and education demographics (Vulturius et al. 2018).

Although people personally experience global warming, there are studies showing that people do not realize it (Akerlof et al. 2013). This also affects the belief in climate change. According to psychology, these encounters should result in greater recognition of danger if we are personally aware of it (Weber 2006). In addition, there are studies showing that risk perception will increase if these encounters are combined with indirect experiences and social construction as well as direct experience (Akerlof et al.

2013). Recognition of danger, that is, risk, also creates a driving force against these adoptions.

When the world is looked at in general, it is seen that the economy is based on consumption. And a consumption behavior that increases waste day by day continues. The fact that consumption is so waste-oriented also negatively affects the environment. "The main paradigm is between higher consumption and preserving the environment." can be said (Bucea-Manea-Țoniș et al. 2021). It is obvious that for a long-term transformation to be achieved, our consumption behaviors need to be changed. Recovery, reduction, recycling, and reuse are necessary components for proper consumption without waste and therefore environmental sustainability (David, Thangavel, and Sankriti 2019).

With the climate change in the world, daily, economic and social life began to be reshaped (Castro and Sen 2022). In developed and developing countries, the transition to low-emission development has been accepted as an international obligation to reduce climate change (Omer 2008). Adoption to climate change has also become a necessity for individuals (Adger, Arnell, and Tompkins 2005).

2.1. Individual Adoption Perspective to Environmental Sustainability

Many developed countries and those working on adoption in environmental sustainability have focused their research on the actions of public and private institutions (Arnell and Delaney 2006) (Berkhout, Hertin, and Gann 2006) (Tompkins et al. 2010). However, ensuring the participation of the public, namely individuals, in environmental actions such as recycling, energy conservation measures, and green consumerism is necessary for sustainable consumption and environmental sustainability (Scott, Oates, and Young 2015). Whether it is from the point of view of organizations, production, municipalities or states, taking action in the name of environmental sustainability requires the adoption of individuals. If individuals do not adopt to the changes made, continuity cannot be ensured and reverts to old behaviors begin. In order for even companies to be green, the adoption of employees, that is, individuals, is

mandatory. Because these policies will be adopted by the employees. Moreover with the adoption of individuals, individuals as consumers and citizens can express their demands from public institutions, private sectors and industrial organizations to act responsively to the environment. It should be noted that "organizations do not make decisions but individuals do" (cited by Lei and Ngai 2013). Therefore, individual adoption is an important point of change. Because of this situation, addressing the issue of adoption of individuals will create a solution to the main problems. Examining the adoption of individuals will be our first step.

Individuals can contribute directly or indirectly to the low carbon target. They are found in roles such as low-carbon consumers (Liu 2019), low-carbon workers (Liu 2019), low-carbon citizens (Bai and Liu 2013), environmental citizenship (Sarid and Goldman 2021). Furthermore, according to Stern, these behaviors can affect the social environment and indirectly influence government decisions, causing more people to become low-carbon (Xia et al. 2022). Environmental citizenship encompasses all of these roles. Environmental citizenship is defined as "the responsible pro-environmental behavior of citizens who act and participate in society as agents of change in the private and public sphere, on a local, national and global scale, through individual and collective actions, in the direction of solving contemporary environmental problems, preventing the creation of new environmental problems, achieving sustainability as well as developing a healthy relationship with nature" (European Network for Environmental Citizenship – ENEC 2018). Environmental citizenship functions as catalysts for social change (Sarid and Goldman 2021).

It is known that about 40% of environmental degradation is caused by unreasonable consumption habits and patterns. (cited by Shen and Wang 2022). It is seen that it is imperative for these habits and patterns to change for environmental sustainability, and it is known that consumer habits are also part of the adoption of individuals. As can be understood from here, the share and importance of individual adoption is of great significance.

Let's take the recycling of waste in the name of preventing climate change. Many materials that are thrown away without thinking in daily life can be recovered through recycling. Although municipalities or private companies carry out the waste recycling, this waste transformation can be achieved with the change in the daily behavior of

individuals for the separation of these wastes. Individuals primarily in their homes, workplaces, etc. must make this distinction (Abbott, Nandeibam, and O'Shea 2011) so that the process for transformation can begin. As in many other examples, this leads us to the adoption of the individual in the fight against the climate crisis. We see that adoption of the individual is necessary for transformation. It is seen that the adoption of the individual is necessary for transformation. If the aim is to make sectors, countries, or cities "green," the way is through individuals.

Although individuals as consumers are aware of climate change, there are many people who have not yet adapted to environmentally friendly behaviors (Zainudin et al. 2019).

2.2. Individual Adoption in Our Daily Life in Terms of Environmental Sustainability

Climate change has increasingly become a daily issue of the social, economic and political order (Castro and Sen 2022). Many researchers, from philosophers to social movement scientists, have expressed the importance of daily life (Fang, Hassan, and LePage 2022) and daily resistance in this regard (Johansson and Vinthagen 2014) (Raffles 2008) (Scott, Oates, and Young 2015) (Scott 2008).

Climate change is increasingly affecting human life (IPCC 2018). It has become seriously visible in the daily life of individuals. The climate crisis may have been aware of by us, but in recent years, floods, fires, air temperatures, and their effects have become visible in our daily lives, and their effects have been felt by us. These effects, which are visible at the same time, cause both physical and moral losses for individuals (Grothmann and Patt 2005). And as this visibility increases, the number and variety of studies in this field are increasing day by day.

It is known that the activities of daily living, namely, the activities carried out individually, are considered an important part of climate change. Approximately two-thirds of the greenhouse gas emissions that occur are directly or indirectly related to the

daily activities of people (Wang et al. 2021). These ratios prove to us how important the changes we make in our daily lives are.

2.3. The Importance of Household Perspective and Childhood Period

As in other areas, the adoption of individuals plays a key role in household adoption. For example, we see that even buildings designed for low carbon purposes do not fully reach their purpose due to the habits and consumption patterns of individuals (Janda 2011). Factors such as the cultural norms and behavioral habits of the end user are decisive (Hayles et al. 2013). In this context, if the reduction of carbon emissions in homes is to be achieved, behavioral change and the adoption of individuals are essential.

With the awareness of environmental degradation, consumers have started to change their attitudes, behaviors and approaches (Biswas and Roy 2015). It is important for households to participate in actions such as recycling, energy conservation and green consumerism. A UK household study by Porter et al. shows that households are already using low-cost, low-skill coping methods (quick diets, clothes, fast-acting actions like opening/closing windows) but more financial and government support is needed (Porter, Dessai, and Tompkins 2014).

When the adoption at the household level is looked at, the family dynamics and harmony within the family should not be ignored. Hung et al. (2022) listed seven main household factors as: (1) gender-based division of labor, (2) conflicts, (3) conflicts and conflict resolution strategies, (4) stages of decision making, and (5) types of decision making, (6) interpersonal influence, and (7) processes of the household life cycle (Hung and Wang 2022). These factors should not be ignored when examining the household level. When considered, these factors depend on many variables such as cultural values.

At the same time, it is thought that the environmental concerns of the children in the household and their knowledge on this subject act as a catalyst to move the

household (Easterling, Miller, and Weinberger 1995). According to Burgess, many different types of social practices and behaviors are learned in childhood and then enacted without any conscious thought or reasoning (Burgess and Akers 1966). Similar results were reached in our previous study (Kaplan, Çorbacıoğlu, and Başoğlu 2022). Our semi-structured interview clearly shows that "it is seen that people adopt the activities that they learned in childhood, such as not wasting water and turning off the lights, reducing consumption, and realizing these activities as a habit. These behaviors learned in childhood as habits for the rest of their lives, and these habits were transformed and added " (Kaplan, Çorbacıoğlu, and Başoğlu 2022).

2.4.   The Place of Information System (IS) and Information Technology (IT) in Environmental Sustainability

Molla (2011) defines green IT as "both IT hardware manufacturers and firms using IT need to apply principles of environmental sustainability, which include pollution prevention, product stewardship and sustainable development in managing IT. Green IT refers to such practices" (Molla and Abareshi 2011). Green IS, "refers to the design and implementation of information systems that contribute to sustainable business processes." (Watson, 2008). IS/IT has an important place in environmental sustainability. In 2007, the IT sector alone produced 1.3% of global greenhouse gas emissions. It also used 3.9 % electrical power (Malmodin et al. 2010) (Akman and Mishra 2014). Although it occupies such a large place in the production of CO_2 emissions, this issue did not receive enough attention until the "corporate sustainability and information system" issue of MIS Quarterly in 2010. With this study, MIS Quarterly attracted the attention of the academy to this field (Asadi, Hussin, and Saedi 2016) (Malhotra, Melville, and Watson 2011). After this call, we can say that green IT studies gained momentum. When the Scopus database is searched with the keyword "green IT,", it is seen that while there were 6,805 publications in 2010, this number increased to 18,975 in 2022 and these values show the number of studies per year, not cumulative. As technology causes an increase in CO_2 emissions, it can also be an effective player to reduce this increase (Erek et al. 2009)(Watson 2008) (Watson,

Boudreau, and Chen 2010). We know that IS also provides useful and facilitating information in environmentally sensitive behaviors (Dahlinger and Wortmann 2016), for example, the study of Dahlinger (2016) et al.. Green IT adoption is one of the most used methods by corporations for environmental problems (Asadi et al. 2015). Green IT is not only beneficial to the environment, but also provides some advantages to companies. "For the number of reasons and benefits includes cost reduction, reduce power consumption, decrease carbon emissions and environmental influence, enhance system performance and use, space saving, increasing interaction and collaboration, and agile workforce by applying Green IT organizations are actively pursuing Green IT solutions" (Asadi, Hussin, and Saedi 2016) (Molla and Abareshi 2011). These advantages (relative advantages) increase the interest in green IT.

2.5. The Status of Individual adoption in Environmental Sustainability in Terms of Micro Mobility and Transportations

Micro Mobility can be a solution to carbon emission and air quality problems, which are among the biggest problems in cities. International Transport Forum (ITF), proposes to define micromobility as "the use of micro-vehicles: vehicles with a mass of no more than 350 kilograms (771 pounds) and a design speed no higher than 45 km/h." (International Transport Forum (ITF) 2020). A powered micromobility vehicle, as defined by Society of Automotive Engineers (J3194™), is a wheeled vehicle that meets the following criteria: It must be fully or partially powered. Its curb weight should be equal to or less than 500 lb (227 kg). The maximum speed of the vehicle should not exceed 30 mph (48 km/h). The scope of J3194™ includes only vehicles primarily designed for human transportation and intended for use on paved roads and pathways. It excludes vehicles that are solely powered by human effort (Society of Automotive Engineers 2019). E-sharing micro mobility is one of the most important aspects of transportation. It can improve public transportation and reduce the demand for private cars for short-distance driving. It has been recognized by most city authorities as an important factor for low-carbon conversion. It can harm the environment if not configured correctly (OECD-ITF 2021). "When vehicles, fuels and infrastructure are

taken together, personal bicycles, followed by mopeds, subways and buses significantly outperform automobiles in terms of energy and greenhouse gas emission effects per kilometer" (OECD-ITF 2020).

Although there was a 70% reduction in traditional modes of transport in 2020, micro mobility achieved 112 million trips in 2021. One of the things that has changed with the Covid 19 pandemic has been the mode of transportation. In this period, people turned to micro mobility vehicles. They preferred a new way for transportation in their daily lives. For example, bike sales skyrocketed in 2020 and 2021, with people spending $15 billion on personal bikes and accessories. Shared e-bike trips, on the other hand, increased the amount from 9.5 million in 2018 to 17 million in 2021 (NACTO 2020-2021).

With the shared micro mobility, the option for short trips is increasing. Short trips with private vehicles are also very important. These journeys can turn into micro mobility journeys. And 35% of the trips made in America are the trips that we call short trips, which are less than 2 miles. The contribution of this ratio to climate change is too great to be ignored (NACTO 2019). Table 3 shows users of selected segments of the worldwide mobility services market. It is estimated that the varying shares of these modes between 2017-2022 are affected by the COVID-19 pandemic (Statista 2023).

Table 3. Users of Selected Segments of the Mobility Services Market Worldwide From 2017 to 2025 (in millions)

Mobility Service Type	2017	2022	2026*
Public Transportation	4,065.7	3,885	4,504.3
Ride-hailing & Taxi	1,368.7	1,252.9	1,665.3
Flights	942.8	440.7	1,146.2
Trains	790.5	945.7	1,044.4
Bike-sharing	513.1	771.2	930.9
Car rentals	412.7	428.3	604.2
Buses	471.3	502.2	536.9

(Source:https://www.statista.com/markets/419/topic/2576/public-transportation-mobility-services/#statistic1)

The proportional effect of transport on the annual anthropogenic GHG emissions increase between 2000 and 2010 is in the top 3 with 11% (IPCC 2014). When Turkey is looked at, it is seen that the GHG emissions effect of transport is around 15-16% of the total as of 2019. (TÜİK 2021). When these rates are examined, the importance of transport in this regard is too high to be underestimated. A study conducted in Switzerland showed that by switching from car to bicycle, carbon emissions decreased by an average of 8.2 kg per week (Hiselius and Svensson 2017). "Micromobility (e.g., shared bikes) represents a significant opportunity to replace short private vehicle trips (0–3 miles) and reduce transportation sector emissions" (Fan and Harper 2022). Micro mobility can be thought of in two ways. The first is using it as the only means of transportation, the second is the use of door-to-door by integrating public transportation. In micro mobility, it not only reduces carbon emissions, but also contributes to other Sustainable Development Goals topics: Good Health and Well-being, Decent Work and Economic Growth, Sustainable Cities and Communities, Responsible Consumption and Production and Climate Action (Olabi et al. 2023).

2.6. Theories of Adoption in Terms of Environmental Sustainability

Many studies on adoption and behavior theory have been carried out in different fields to date. There are many different theories of adoption and behavior that are used in many different fields. One of these areas is environmental sustainability. The most studied theories in this field are as follows; the theory of reasoned action (TRA), the theory of planned behavior (TPB), the technology acceptance model (TAM), the unified theory of acceptance and use of technology (UTAUT), diffusion of innovation theory (DOI), norm activation model (NAM), value-attitude-behavior (VAB). In table 4, these theories, their variables, and reference publications are seen.

Table 4. Adoption Theories, Variables and Reference Studies of Theories

Adoptions Theories	Variables	References
The Theory of Reasoned Action (TRA)	Attitude Toward Act or Behavior, Subjective Norm, Behavioral Intention, Behavior	(Fishbein and Ajzen 1975)
The Theory of Planned Behavior (TPB)	Attitude, Subjective Norm, Perceived Behavioral Control, Intention, Behavior	(Ajzen 1991)
The Technology Acceptance Model (TAM)	Perceived Usefulness, Perceived Ease of Use, Attitude Toward Use, Intention to Use, Actual System Use	(Davis 1989)
The Unified Theory of Acceptance and Use of Technology (UTAUT)	Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Gender, Age, Experience, Voluntariness of Use, Behavioral Intention, Use Behavior	(Venkatesh et al. 2003)
Extending The Unified Theory of Acceptance and Use of Technology (UTAUT2)	Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Gender, Age, Experience, Hedonic Motivation, Price Value, Habit, Behavioral Intention, Use Behavior	(Venkatesh, Thong, and Xu 2012)
Diffusion of Innovation Theory (DOI)	Relative Advantage, Trialability, Observability, Compatibility, Complexity,	(Rogers 1962)
Norm Activation Model (NAM)	Awareness, Responsibility, Personal norm, Behaviour	(Schwartz 1977)
Value-Attitude-Behavior (VAB)	Hedonic Value, Egoistic Value, Altruistic Value, Biospheric Value, Awareness of Consequences, Ascription of Responsibility, Personal Norm, Pro-environmental Behaviour	(Stern et al. 1999)

CHAPTER 3

FRAMEWORK

Before creating models and hypotheses, a taxonomy of individual adoption in environmental sustainability was created with the constructs we obtained from the literature and interview. Table 5 shows the construct and related publications. See the appendix for a more detailed construct table. Below are the definitions of constructs:

Actual Use: "Actual use" refers to the real and practical usage of a product or service.

Attitude: Defined by Ajzen (1991) as the degree to which a person evaluates or evaluates the behavior in question positively or negatively (Ajzen 1991).

Awareness: To be aware of the change in the environment, environmental degradation.

Compatibility: "The degree to which an innovation is perceived to be consistent with current values, past experiences, and the needs of potential adopters." (Rogers, 1983).

Concern: "The degree to which people are aware of problems regarding the environment and support efforts to solve them and or indicate the willingness to contribute personally to their solution" (Dunlap and Jones 2002).

Cost: Refers to the amount of expenses associated with the production or procurement process, purchase, or usage of a product or service.

Ease of Use: "The degree to which a person believes that using a particular system would be free of effort." (Davis 1989).

External influencing factors: Being influenced by people they know because of a place where they do not have a one-to-one connection.

External PLOC: External perceived locus of causality

Information and Social Influence: "Social Influence refers to the feeling of enough social pressure or observing many others adopting."

Intention: Expresses an individual's inclination towards performing or not performing a specific behavior.

Internal influencing factors: As the person's one-to-one connection and being influenced by the people around him/her.

Internal PLOC: Internal perceived locus of causality

Incentive: Rogers (1983) defines the incentive as; "direct or indirect cash or in-kind payments made to an individual or system for the purpose of encouraging some overt behavioral change."(Rogers,1983)

Knowledge: "Knowledge and awareness about environmental problems and possible solutions to those problems" (Zsóka, 2013).

Norms: An accepted standard or a way of being or doing things.

Obligation: Something that a person feels morally or legally forced to do.

Perception of price: The general image of prices the customer has in their mind when they think about that product.

Responsibility or Ascriptions of responsibility (AR): Refer to "an individual's belief that he or she would bear significant responsibility for consequences." (Stern, et al. 1999, Steg ve Groot 2010, Steg, Dreijerink ve Abrahamse 2005).

Regulation: A rule or order issued by an executive authority or regulatory agency of a government and having the force of law.

Social Support: Applications to act together with people in the social environment. Individuals are inclined to adopt these practices and behaviors in order to be accepted by the social environment. Motivating individuals through social influence. (Shevchuk and Oinas-Kukkonen 2019)

Tax credits: An amount of money that is taken off the amount of tax you must pay.

Usefulness: "The degree to which a person believes that using a particular system would be free of effort." (Davis 1989).

Table 5. Related Constructs and Related Publications

Variables	References
Actual Use	Akman and Mishra 2014
Attitude	Asadi et al. 2015, Nath et al. 2013, Asadi, Hussin, and Saedi 2016, Adnan et al. 2019, Arkesteijn and Oerlemans 2005, Dahlinger and Wortmann 2016, Al Mamun et al. 2020, Dalvi-Esfahani and Rahman 2016, Zainudin et al. 2019, Scott, Oates, and Young 2015, Shevchuk and Oinas-Kukkonen 2019, Adnan, Nordin, and Rasli 2019, Wan and Ha 2021, Eccarius and Lu 2020, Jung, Choi, and Oh 2020, Bamberg and Möser 2007, Harland, Staats, and Wilke 2007, Ajzen 1991, Zhang et al. 2019, Tanwir and Hamzah 2020, Huang and Ge 2019, Paul, Modi, and Patel 2016, Hines, Hungerford, and Tomera 1987, Jaiswal and Kant 2018, Xu, Wang, and Yu 2020, Claudy, Peterson, and O'Driscoll 2013, Ajzen 2006, Rhodes and Courneya 2003, Loo, Yeow, and Eze 2014, Lynne and Rola 1988, Chan 1996, Haron, Paim, and Yahaya 2005, Mohiuddin et al. 2018, Taufique et al. 2016, Chin et al. 2019, Chou, Chen, and Wang 2012, Kabel, Elg, and Sundin 2021, Chen, Chen, and Tung 2018, Bamberg, Hunecke, and Blöbaum 2007, Hansla et al. 2008, Klöckner 2013, Thøgersen and Ölander 2003, Zsóka et al. 2013.
Awareness	Chen, Chen, and Tung 2018, Jansson and Dorrepaal 2015, Asadi et al. 2015, Asadi, Hussin, and Saedi 2016, Adnan, Nordin, and Rasli 2019, Dalvi-Esfahani and Rahman 2016, Zainudin et al. 2019, Eccarius and Lu 2020, Stern et al. 1999, Steg and de Groot 2010, Bamberg and Möser 2007, Bamberg, Hunecke, and Blöbaum 2007, Nordlund and Garvill 2003, Steg, Dreijerink, and Abrahamse 2005, Thøgersen 1999, Harland, Staats, and Wilke 2007, Thøgersen 2003, Grob 1995, Xu, Wang, and Yu 2020, Loo, Yeow, and Eze 2014, Hansla et al. 2008, Zsóka et al. 2013, Mohiuddin et al. 2018, Wan and Ha 2021, Darko et al. 2018, Klöckner 2013, Nath et al. 2013, Panda et al. 2020.
Compatibility	Rogers 1983, Rogers 2003, Tapaninen, Seppänen, and Makinen 2009, Ozaki 2011, Claudy, Peterson, and O'Driscoll 2013, Kapoor and Dwivedi 2020, Adnan et al. 2019, Adnan, Nordin, and Rasli 2019, Eccarius and Lu 2020, Faiers, Neame, and Cook 2007, Völlink, Meertens, and Midden 2002, Müller and Rode 2013.
Concern	Paul, Modi, and Patel 2016, Dunlap and Jones 2002, Fransson and Gärling 1999, Roberts 1996, Jaiswal and Kant 2018, Patak, Branska, and Pecinova 2021, Hansla et al. 2008, D'Amico, Di Vita, and Monaco 2016, Vulturius et al. 2018, Lin and Huang 2012, Kabel, Elg, and Sundin 2021, Zhang et al. 2019, Adnan, Nordin, and Rasli 2019.

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Table 5. (cont.)

Variables	References
Cost	Thøgersen 1999, Claudy, Peterson, and O'Driscoll 2013, Arkesteijn and Oerlemans 2005, Asadi, Hussin, and Saedi 2016, Chen, Chen, and Tung 2018.
Credibility Support	Shevchuk and Oinas-Kukkonen 2019.
Ease of Use	Bekaroo et al. 2018, Wang et al. 2019, Arkesteijn and Oerlemans 2005, Dahlinger and Wortmann 2016, Zhu et al. 2013, Davis 1989, Venkatesh 1999, Venkatesh and Davis 2000.
External influencing factors	Zhu et al. 2013.
External PLOC	Shevchuk and Oinas-Kukkonen 2019.
Government	Wang et al. 2019, Zhu et al. 2013, Wan and Ha 2021, Darko et al. 2018, Chen, Chen, and Tung 2018.
Income	Roman et al. 2015, Hines, Hungerford, and Tomera 1987, Vulturius et al. 2018, Valenzuela-Levi and Abreu 2021, Arkesteijn and Oerlemans 2005.
Information and Social Influence	Ozaki 2011.
Innovativeness	Huang and Qian 2021, Wang et al. 2019, Al-Rejal et al. 2020, Małecka et al. 2022, Chou, Chen, and Wang 2012, Kapoor and Dwivedi 2020.
Intention	Steg and de Groot 2010, Klöckner 2013, Harland, Staats, and Wilke 2007, Thøgersen 2003, Ajzen 1991, Huang and Ge 2019, Paul, Modi, and Patel 2016, Panda et al. 2020, Jaiswal and Kant 2018, Xu, Wang, and Yu 2020, Zhu et al. 2013, Ajzen 2006, Loo, Yeow, and Eze 2014, Kapoor and Dwivedi 2020, Eccarius and Lu 2020, Chin et al. 2019, Li and Hu 2018, Asadi, Hussin, and Saedi 2016, Chou, Chen, and Wang 2012, Dahlinger and Wortmann 2016, Venkatesh 1999, Bamberg, Hunecke, and Blöbaum 2007, Małecka et al. 2022, Heijden 2004, Ozaki 2011, Claudy, Peterson, and O'Driscoll 2013, Adnan et al. 2019, Akman and Mishra 2014, Al Mamun et al. 2020, Zainudin et al. 2019, Huang and Qian 2021, Zhang et al. 2019, Shevchuk and Oinas-Kukkonen 2019, Bekaroo et al. 2018, Patak, Branska, and Pecinova 2021, Jung, Choi, and Oh 2020, Bamberg and Möser 2007.

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Table 5. (cont.)

Variables	References
Intention (cont.).	Tanwir and Hamzah 2020, (Claudy, Peterson, and O'Driscoll 2013, Rhodes and Courneya 2003, Mohiuddin et al. 2018, Chen, Chen, and Tung 2018, Völlink, Meertens, and Midden 2002.
Internal influencing factors	Zhu et al. 2013
Internal PLOC	Shevchuk and Oinas-Kukkonen 2019.
Incentive	Gallagher and Muehlegger 2011, Drozdenko, Jensen, and Coelho 2011, Wan and Ha 2021, Darko et al. 2018, Huang and Ge 2019, Al-Rejal et al. 2020, Nath et al. 2013.
Knowledge	Tanwir and Hamzah 2020, Huang and Ge 2019, Simsekoglu and Nayum 2019, Hines, Hungerford, and Tomera 1987, Jaiswal and Kant 2018, Patak, Branska, and Pecinova 2021, Haron, Paim, and Yahaya 2005, Zsóka et al. 2013, Mohiuddin et al. 2018, Arkesteijn and Oerlemans 2005, Taufique et al. 2016, Chin et al. 2019, D'Amico, Di Vita, and Monaco 2016, Li and Hu 2018, Vulturius et al. 2018, Wan and Ha 2021, Kabel, Elg, and Sundin 2021, Chen, Chen, and Tung 2018, Biswas and Roy 2015, Darko et al. 2018.
Legal Enforcement	Nath et al. 2013.
Lifestyle	Patak, Branska, and Pecinova 2021.
Norms	Stern et al. 1999, Jansson and Dorrepaal 2015, Steg and de Groot 2010, Bamberg and Möser 2007, Harland, Staats, and Wilke 2007, Thøgersen and Ölander 2003, Klöckner 2013, Thøgersen 2006, Bamberg, Hunecke, and Blöbaum 2007, Nordlund and Garvill 2003, Steg, Dreijerink, and Abrahamse 2005, Thøgersen 1999, Thøgersen 2003, Ajzen 1991, Zainudin et al. 2019, Zhang et al. 2019, Tanwir and Hamzah 2020, Huang and Ge 2019, Simsekoglu and Nayum 2019, Paul, Modi, and Patel 2016, Nath et al. 2013, Xu, Wang, and Yu 2020, Ajzen 2006, Ajzen 2006, Rhodes and Courneya 2003, Loo, Yeow, and Eze 2014, Wiidegren 1998, Eccarius and Lu 2020, Mohiuddin et al. 2018, Asadi, Hussin, and Saedi 2016, Chou, Chen, and Wang 2012, Wan and Ha 2021, Kabel, Elg, and Sundin 2021, Zou and Chan 2019, Chen, Chen, and Tung 2018, Venkatesh and Davis 2000, Dahlinger and Wortmann 2016, Rivis, Sheeran, and Armitage 2009, Thøgersen 2006, Schwartz 1977, Ozaki 2011, Asadi et al. 2015, Asadi, Hussin, and Saedi 2016, Dalvi-Esfahani and Rahman 2016, Scott, Oates, and Young 2015, Jung, Choi, and Oh 2020, Adnan et al. 2019, Akman and Mishra 2014, Al Mamun et al. 2020, Zainudin et al. 2019, Zhang et al. 2019, Adnan, Nordin, and Rasli 2019, Małecka et al. 2022, Groot, Abrahamse, and Jones 2013, Garcia-Valiñas, Macintyre, and Torgler 2012, Fornara et al. 2011, Andersson and Borgstede2010, Allcott 2011.

Table 5. (cont.)

Variables	References
Obligation	Thøgersen 2006.
Policy	Stern et al. 1999.
Perception of price	Arkesteijn and Oerlemans 2005
Responsibility	Steg and de Groot 2010, Klöckner 2013, Steg, Dreijerink, and Abrahamse 2005, Harland, Staats, and Wilke 2007, Hines, Hungerford, and Tomera 1987, Loo, Yeow, and Eze 2014, Asadi, Hussin, and Saedi 2016, Asadi et al. 2015, Asadi, Hussin, and Saedi Dalvi-Esfahani and Rahman 2016.
Regulation	Adnan, Nordin, and Rasli 2019.
Social Support	Shevchuk and Oinas-Kukkonen 2019.
Tax credits	Nath et al. 2013.
Use	Bamberg, Hunecke, and Blöbaum 2007, Venkatesh 1999.
Usefulness	Adnan et al. 2019, Dahlinger and Wortmann 2016, Bekaroo et al. 2018, Davis 1989; Venkatesh and Davis 2000, Heijden 2004, Venkatesh 1999,Wang et al. 2019, Małecka et al. 2022.

In the interview, new factors that were not encountered in the literature were discovered. Table 6 displays the constructs encountered in the literature and interviews, as well as the constructs found in both the literature and interviews. For a detailed list of the literature, please refer to the appendix.

Table 6. Constructs from Literature and Interviews: A Comparison

Literature and Interview	Interview	Literature
Ascription of responsibility	Helplessness	Innovativeness
Attittude	Legal regulation	Intention
Value	Access to limited product	Ability
Goverment incentives	Feeling good	Acceptability
Tax credits	Fear	Activism
Health concerns	Trust	Advantage
Risk	Decision-making dependency	Advertisement
Social Norm	Limited-time	Aesthetic Consumption
Benefit	Unemployment	Altruism
Ease of use	Access to a limited product	Barriers
Awareness	Infrastructure	Behaviour
Incentive	Comfort	Belief
Controllability	Transparency	Brand

Table 6. (cont.).

Literature and Interview	Interview	Literature
Usefulness	Negative Social Norm	Care
Consern	Social Pressure	Citizenship
Cost (Long term)		Collectivism
Motivate		Commitment
Knowledge		Communication
Habit		Complexity
Adoption		NEP New Ecological Paradigm
Compatibility		Observability
Life Style		Relative adventige
Cultural value		Self-efficacy
Behavioral beliefs		Trialability
Responsibility		Need
Regulation		Label
		Willingness

Table 7 displays the taxonomy of adaptation in environmental sustainability. The (L) indicates constructs obtained from the literature review, (I) indicates constructs obtained from interviews, and (L)-(I) indicates constructs that were identified in both the literature and interviews.

Environmental Sustainability Adaptation was divided into 9 groups. The relevant constructs were organized into these groups based on the meaning they express. These groups are knowledge, norms, regulations, cost, benefit, usability/accordance, value,   use/act,   and   facilitates.

Table 7. Taxonomy of Environmental Sustainability Adotion

KNOWLEDGE	NORMS	REGULATIONS	COST	BENEFIT	USEBILITY/ ACCORDANCE	VALUE	USE/ACT	FACILITATES
Advertisement (L)	Citizenship (L)	Authority (L)	Cost (L)-(I)	Advantage (L)	Ability (L)	Attitude (L)-(I)	Actual displayed environmental behavior (L)	Decision-making dependency (I)
Awareness (L)-(I)	Collectivism (L)	Barriers (L)	Credibility Support (L)	Aesthetic Consumption (L)	Acceptability (L)	Belief (L)-(I)	Actual Use (L)	Limited-time (I)
Brand (L)	Community(L)	Control (L)	Income (L)	Benefit (L)-(I)	Altruism (L)	Care(L)	Behaviour (L)	Unemployment (I)
Communication (L)	Dialogue Support (L)	Controllability (L)-(I)	Incentive (L)-(I)	Competitive Advantage (L)	Compatibility (L)-(I)	Commitment (L)	Behavior Control (L)	Access to a limited product (I)
Context factors (L)	External influencing factors (L)	Credibility Support (L)	Economic orientation (L)	Effectiveness (L)	Complexity (L)	Concern (L)-(I)	Consumption (L)	Infrastructure (I)
Eco-labeling (L)	External PLOC (L)	Enforcement (L)	Perception of price (L)	Efficacy (L)	Condition (L)	Emotion (L)	Consumer (L)	
Eco-Literacy (L)	Group effect (L)	Government (L)	Tax credits (L)-(I)	Enjoyment (L)	Convenience (L)	Equity (L)	Green practices (L)	
Exposure (L)	Group norm (L)	Incentive (L)-(I)		Image (L)	Ease of Use (L)-(I)	Ethic (L)	Intention (L)	
Information and Social Influence (L)	Information and Social Influence (L)	Legal Enforcement (L)		Incentive (L)	Habit (L)-(I)	Fairness (L)	Learning capability (L)	
Knowledge (L)-(I)	Internal influencing factors (L)	Obligation (L)		Need (L)	Incompatibility (L)	Guilt (L)	Use (L)	

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Table 7. (cont.)

KNOWLEDGE	NORMS	REGULATIONS	COST	BENEFIT	USEBILITY/ ACCORFANCE	VALUE	USE/ACT	FACILITATES
Mass media (L)	Mimetic Pressures (L)	Regulation (L)-(I)	-----	Opportunity (L)	Lifestyle (L)-(I)	Idealism (L)	----	----
Quality (L)	Norms (L)-(I)	Tax credits (L)		Promotion (L)	Self-efficacy (L)	Ideology (L)		
Risk (L)-(I)	Organizational performance (L)	Legal regulation (I)		Relative advantage (L)	Trialability (L)	Loyalty (L)		
Trust (L)	Outcome-Based Pressure (L)			Sociability (L)	Usefulness (L)-(I)	NEP New Ecological Paradigm (L)		
Uncertainty (L)	Peer group (L)			Status (L)	Access to limited product (I)	Primary Task Support (L)		
Transparency (I)	Pressure (L)			Feeling good (I)	Comfort (I)	Perception of probability (L)		
	Psychosocial (L)					Responsibility (L)-(I)		
	Social Support (L)					Sanctity (L)		
	Helplessness (I)					Value (L)-(I)		
	Social Pressure (I)					Willingness (L)		
	Negative Social Norm (I)					Fear (I)		
						Trust (I)		
						Comfort (I)		

3.1.   Research Framework and Hypothesis

Figure 2 presents the transportation-micro mobility adoption framework in environmental sustainability. According to the framework, determinants of use are attitude, social norm, involve, useful, external influence, regulation, concern, transparent, ease of use, security, and infrastructure.
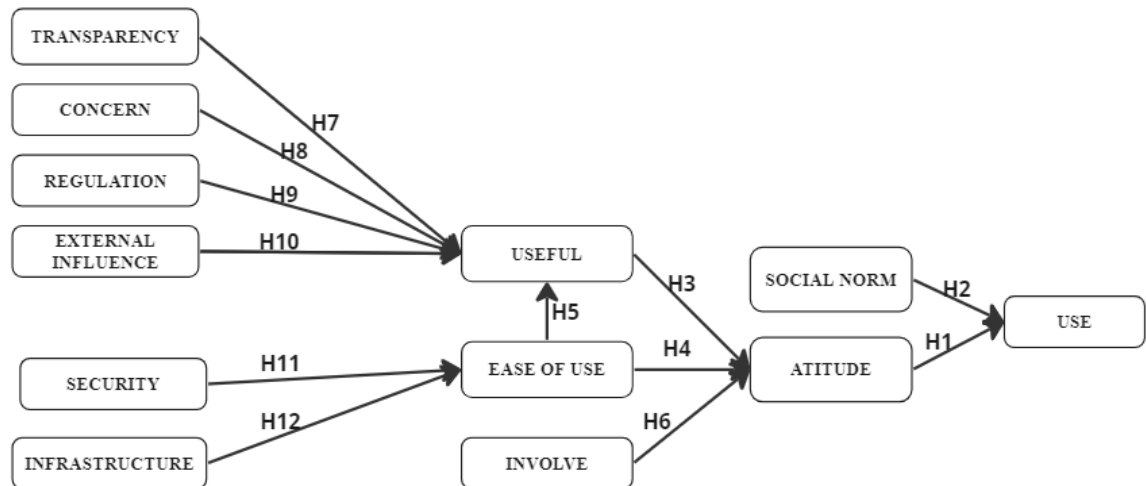
Figure 3. Determinants of Public Transportation-Micro Mobility Adoption Framework in Environmental Sustainability

Actual use. Thinking that people will do something and actually doing it are two different things. In the study of Bamberg et al., it was seen that the survey participants with higher awareness living in Frankfurt actually had higher public transportation preferences. Furthermore those who used their own cars felt a greater guilt. Thus, it is seen that awareness and actual use have a direct and high interaction. (Bamberg, Hunecke, and Blöbaum 2007).

Attitude is defined by Ajzen (1991) as the degree to which a person evaluates or evaluates the behavior in question positively or negatively (Ajzen 1991). However, Ajzen adds that "The relative importance of attitude, subjective norm, and perceived behavioral control in predicting intention is expected to vary between behaviors and situations" (Ajzen 1991). Attitude has two subcomponents. These are: (1) the affective subcomponent, "conceptualized based on individuals' evaluations, particularly their

disposition or desire for a particular behavior", (2) the instrumental subcomponent, "individuals' assessments of whether a particular behavior is considered beneficial or harmful." (Tanwir and Hamzah 2020) (Ajzen 2006) (Rhodes and Courneya 2003). Attitude in environmental intention is a powerful influencing factor. For example, in renewable energy adoption (Hansla et al. 2008) (Steg, Dreijerink, and Abrahamse 2005) (Claudy, Peterson, and O'Driscoll 2013)(Zainudin et al. 2019), the intention to purchase utilitarian green products and hedonic green products (Zhang et al. 2019), environmental behavior (Lynne and Rola 1988) (Nath et al. 2013), it has been confirmed that attitude is a highly influential factor in the adoption of different styles of green products (Nath et al. 2013). In other words, the more positively you think about something, the higher the likelihood of engaging in that particular thing. Naturally, this situation applies within the relationship between attitude and use. Therefore, we propose the following hypothesis.

H1: Attitude significantly and positively affects individual use.

The 'social' in the social norm refers to community expectations. It tells that the reward and punishment that supports this norm come from outside this social group. Therefore, this expression used for behavior regulation describes a non-internalized form of regulation from outside (Ajzen 1988). If the working mechanism of the social norm, such as reward and punishment, is looked at, individuals may prefer to behave in accordance with social norms in order to be a part of that social group. In other words, it can be stated that they adhere to these norms due to social pressure (Ajzen 1988). At the same time, individuals refer to social norms in order to understand social situations correctly and to act appropriately (especially to obtain information in uncertain times) (Cialdini and Goldstein 2004). According to Cialdini's (1998) definition, "Social norms are rules and standards that are understood by members of a group, and that guide and/or constrain social behavior without the force of laws." (Cialdini and Trost 1998).

Research in different sub-branches of pro-environmental behavior confirms the effect of social norms on this issue. For example: water conservation (Lapinski et al. 2007), using free plastic bags (Groot, Abrahamse, and Jones 2013), volunteering in environmental organizations (Garcia-Valiñas, Macintyre, and Torgler 2012), household waste recycling (Fornara et al. 2011), low-cost and high-cost recycling (Andersson and Borgstede 2010), energy conservation (Allcott 2011), sustainable consumption (Biswas

and Roy 2015). It has been seen that social norms affect these behavior patterns. So, an individual can behave by adopting the social norms of a group in order to become part of that group. Thus:

H2: Social norm significantly and positively affects individual use.

Perceived usefulness is defined here as "the degree to which a person believes that using a particular system would enhance his or her job performance." (Davis 1989). Studies show that usefulness is the strongest determinant of usage intentions in TAM theory (Venkatesh and Davis 2000). And perceived ease of use also directly affects usefulness. All else being equal, the easier the system is, the more useful it is (Venkatesh ve Davis 2000). It is a powerful estimator of usefulness usage intention. There are studies supporting this (Bekaroo et al. 2018) (Venkatesh 1999) (Małecka et al. 2022). If a situation fulfills one's needs, their attitude towards that situation tends to be more positive. In other words, the more useful a situation or preference is in meeting our needs, the more favorably it is viewed by us. Therefore, the following hypothesis is proposed by us.

H3: Usefulness significantly and positively affects attitude.

Perceived ease of use refers to "the degree to which a person believes that using a particular system would be free of effort." (Davis 1989). If all else is equal, we assume that users will prefer the one that is easier to use (Davis 1989), and choosing this easy-to-use one can also improve the user's performance (Venkatesh and Davis 2000). When viewed in this way, ease of use can be considered within the scope of performance improvement (Heijden 2004). Perceived ease of use offers a value in the form of enjoyment in case of performance improvement, and since this enjoyment value has a significant effect on the basic motivation to use, it actually contributes to intention and behavior change (Dahlinger and Wortmann 2016). In the study of Arkesteijn, (2005) et al. on green electricity adoption, it is seen that the perception of ease of use increases the probability of adoption. It can be assumed that the more practical and easy to use something is, the more positive the attitude towards it will be compared to something that is not easy to use. They would be less willing to adopt if they thought it was difficult to obtain and integrate into daily life (Arkesteijn and Oerlemans 2005). Perceived ease of use and perceived usefulness are related to each other, and perceived

ease of use directly affects perceived usefulness and is secondary to intention (Davis 1989) (Dahlinger and Wortmann 2016) (Venkatesh 1999).

H4: Ease of Use significantly and positively affects attitude.

H5: Ease of Use significantly and positively affects usefulness.

If people become a part of communities, they embrace both the problem and the solution more, and naturally it will be much easier to adopt. Having a voice in the face of a situation is a motivating factor and brings ownership. Adoption of individuals in environmental sustainability can also occur in this way. If participation in the activities of organizations such as municipalities and NGOs doing business in this field is ensured, we expect adoption to be high.

H6: Involve significantly and positively affects attitude.

In our research, it has been seen that, as far as we know, the concept of transparency is not used in the field of individual adoption in environmental sustainability. As humans, we want to know if the things we do are working. Knowing that what is done works gives us motivation. Therefore, sharing the practices and results of the authorized institutions as a transparency can move us more in these areas and help us strengthen individual adoption. The visibility of our actions is important both for the perpetrator and for the formation of people who will see it and take it as an example. Increasing transparency increases trust and makes the system more useful.

H7: Transparency significantly and positively affects useful.

Environmental concern, "the degree to which people are aware of problems regarding the environment and support efforts to solve them and or indicate the willingness to contribute personally to their solution" (Dunlap and Jones 2002). Fransson (1999), on the other hand, "states that environmental concern is considered as an assessment or an attitude towards facts, one's own behavior, or the behavior of others with consequences for the environment" (Fransson and Gärling 1999).

Studies have shown that environmentally sensitive individuals are more likely to take steps to protect the environment and are more proactive (Grob 1995) (Hines, Hungerford, and Tomera 1987) (Nath et al. 2013) (Roberts 1996). And it is seen that individuals who engage in "green consumption" have high

environmental awareness (Nath et al., 2013) and environmental concerns. In the research, it is seen that the environmental concern level of culture is a very important variable in sustainable consumption, among other factors. (Zhu et al. 2013) (Thøgersen 2010). Environmental concern is one of the strongest precursors of the attitude towards green products and the purchasing intention, along with the subjective norm and perceived behavioral control (Panda et al. 2020) (Jaiswal and Kant 2018) (Patak, Branska, and Pecinova 2021) (Xu, Wang, and Yu 2020). In the study of Zhang et al., they find that environmental concern is highly influential in the purchase of utilitarian green products (ie, energy efficient household appliances) and hedonic green products (i.e., organic clothing) (Zhang et al. 2019). Increasing demand for ecological products shows us that environmental concerns are also increasing (Prothero, McDonagh, and Dobscha 2010) (Claudy, Peterson, and O'Driscoll 2013). Do people have concerns about nature? To what extent are these concerns reflected in their behavior? If we consider that being useful is related to the extent to which one's needs are met, we can see that for someone who is concerned about the environment, using a bicycle can be seen as a useful situation. Because their need is to address their environmental concerns by taking action.

H8: Concern significantly and positively affects useful.

Many studies in the field of regulating climate change adoption are encountered, which are considered as a concept that combines concepts such as legal support, legal enforcement, tax-credit, law, and governmental effort. Many studies have shown the importance of regulations (Nath et al. 2013), it has been said that individuals contribute significantly to behavior change. For example; environmental attributes for tax-credit and financial incentives glass products are significantly added. Legal information and financial incentives are important for the adoption of electrical products (Wan and Ha 2021). It has been found to be significantly important for the Government role in environmental attitudes (Chen, Chen, and Tung 2018). At the same time, the semi-structured interview we have done in this field has shown that people want to know that it is legal, that is, everyone follows these rules and acts accordingly. As an example, the participants give the decrease in the use of plastic bags with the transition to the sale of plastic bags used in markets in Turkey with money. They emphasize that such legal practices are more reassuring and serious steps.

H9: Regulation significantly and positively affects useful.

External influence has been addressed in different ways in many areas. For example, in the green food consumption study by Zhu et al., external influencing factors are defined as "those related to social, environmental or governmental management." (Zhu et al. 2013). In the study by Xue et al., external factors refer to "some objective conditions, living environment or policy environment beyond the control of individuals such as climate change-related information, the perception of external climate change (as measured by perceived extreme climate frequencies), and climate adaptation policies." (Xue et al. 2021). In this study, we define external influence as being influenced by people they know because of a place where they do not have a one-to-one connection. If this concept is thought about, social media is considered as the key component to communicate with people. Social media is a formation that the majority of people participate in and use today. With social media, communication and getting information has accelerated so much that we can now learn where, what, and when. Social media is faster than normal media and people from all over the world are connected, free and uncensored. Furthermore. public opinion can be created. People are heavily exposed to social media. A profession called social media content creator has emerged. There is even a psychological disorder that we call social media addiction, which is at the center of our lives so much. However, the influence of social media has become an inevitable reality. In the field of social media, especially recently, a lot of scientific research has been carried out on different subjects. One of these areas is those related to climate change. In the study of Adekunle Anthony Ogunjimi et al., it was found that the effect of social media affects climate change knowledge and anxiety (Ogunjinmi et al. 2016). In the study of Alexandrina V. Mavrodieva et al., it is seen that there is a visible connection between social media and changing public perceptions. (Mavrodieva et al. 2019). Some studies have found that social media causes negative feelings, such as anxiety about climate change, but a moderate concern about it is likely to encourage people to live a more environmentally friendly life (Maran and Begotti 2021). There are very few studies in this area and we have not seen a study that includes social media on individual adaptation to climate change. The importance of social media is aware of by us. To what extent are we influenced by content from people on social media about climate change adaptation? To what extent are we influenced by external factors about climate change adaptation? Thus:

H10: External influence significantly and positively affects useful.

Security represents that an item – from this point the bike – is secured and unharmed. There is a possibility that people's concern about their bikes getting damaged may prevent them from owning a bike. Because we think that people will not want to spend time and money again and again, which is already limited. How much people are affected in terms of cycling by bicycle security will be investigated by us. For example, the concern that the bike will be damaged after parking it will affect the ease of cycling. We think that the possibility of damage to the bicycle will make it difficult to use the bicycle. As the safety of the bicycle increases, the ease of use will also improve. Therefore, we propose the following hypothesis:

H11: Security significantly and positively affects ease of use.

Due to the lack of infrastructure, individuals may not be able to realize the changes they want to make. For example, in a region where the public transportation network is not sufficient, it cannot be expected in principle that people prefer public transportation. The same applies to bicycle preferences as a means of transportation. Without the necessary infrastructure, people cannot be expected to adopt to something. For example, someone who does not prefer a bicycle because she/he is afraid of going into fast-flowing traffic may prefer a bicycle when appropriate road arrangements and a separate bicycle path infrastructure are provided. Naturally, we believe that infrastructure is a determining factor in ease of use. Because of this:

H12: Infrastructure significantly and positively affects ease of use.

The hypotheses defined are summarized in Table 8.

Table 8. Determinants of Transportation-Micro Mobility Adoption Framework in Environmental Sustainability

Hypothesis	Dependent Variable	Independent Variable	Relationship
H1	Use	Attitude	Positive
H2	Use	Social Norm	Positive
H3	Attitude	Usefulness	Positive

(cont. on next page)

Table 8. (cont.)

Hypothesis	Dependent Variable	Independent Variable	Relationship
H4	Attitude	Ease of Use	Positive
H5	Usefulness	Ease of Use	Positive
H6	Attitude	Involve	Positive
H7	Usefulness	Transparency	Positive
H8	Usefulness	Concern	Positive
H9	Usefulness	Regulation	Positive
H10	Usefulness	External influence	Positive
H11	Ease of Use	Security	Positive
H12	Ease of Use	Infrastructure	Positive

CHAPTER 4

METHODOLOGY

Article searches were made from the Scopus database using keywords such as "environmental sustainability", "individual", "adoption", "micro mobility", "climate change", "adoption theories". The articles in the list formed as a result of the searches were reviewed by making abstract and title readings, and the articles to be read were selected. A total of 460 articles were reviewed, and 146 articles were read in detail, by adding articles obtained from different sources and researches to this list. A construct-taxonomy was created from 136 articles. Table 9 is a summary of the methodology of our study.

Table 9. Summary of Methodology

Study	Date	Description
Literature Review and Folder/files	May, 2020	Keywords were searched from the Scopus database. 460 articles were reviewed, 146 articles were read in detail. A construct taxonomy was created from 136 articles.
Communicate with Experts & Stakeholders	July, 2021	Online interviews were conducted with different experts.
Interviews	Dec, 2021	The interview was conducted by asking 7 participants who are of different demographics 8 questions.
Quantitative Study 1	Jan, 2022	The questionnaire was prepared with 68 actions. 72 people answered the questionnaire.
Prepare The Survey Questions	Sept, 2022	The questionnaire questions on Transportation-Micro Mobility in Environmental Sustainability began to be prepared.
Pilot 1	Jan, 2023	The first survey pilot study of 100 questions was implemented and analyzed. With the data obtained as a result of these analyzes, a new survey study pilot 2 questionnaire was created
Pilot 2	Feb, 2023	Pilot 2 study of 100 questions, which was organized with the feedback of Pilot 1, was applied to 12 people. Reliability analysis was performed.

Table 9 (cont.)

Study	Date	Description
Quantitaive Study 2	Apr, 2023	A main questionnaire consisting of 80 questions was prepared with the data of the pilot 2 study. And applied to 296 people.
Analysis	Apr, May 2023	With the data collected after the survey, Descriptive Statistics, Correlation Analysis, Reliability Analysis, Regression Analysis, Cluster Analysis were made.

The study was composed of a semi-structured interview and two different questionnaires. For this study, a semi-structured interview was planned first. Interview questions are included in table 10. Individual adoption in environmental sustainability covers a very wide area. After doing an in-depth research on what we can do about this subject, what our themes might be, we created this list (table 12) and interviewed 7 people from our sample. Apart from demographic questions, 8 questions were asked to the people. The Profile of the Interviewers is as in table 11. This interview took an average of 30 minutes.

Table 10. Indepth Semi-structure Questions

1a) What do you think about "Environment/Climate change"?

1b) Is climate change important to you? Why is it important?

2) Which tangible aspect of climate change might affect you most negatively?

3) Have you heard of the concept of green lifestyle before? What do you think?

4a) Do you think climate change is preventable?

4b) (you and your friends) Do you think you can contribute to the prevention of climate change by making a few small changes in your daily life?

5) Are there any actions you take individually to prevent climate change?

DEMO – Infographic

6) Are you willing to make changes in your standard of living in order to do something about it?

7) LIST is displayed. On what topic would you like to contribute (mark if there are contributors)?

8) What are the factors that encourage you to take measures/support about climate change and what are the factors that prevent you?

Table 11. The Profile of the Interviewers

Age	Gender	Education	Profession	Work	Income
56	Male	Primary school	Retired	No	2,000 ₺
51	Female	Primary school	Housewife	No	5,000 ₺
31	Female	Undergraduate	Physiotherapist	Yes	1,.500 ₺
26	Male	High school	Student	Student	2,400 ₺
27	Male	Postgraduate	Engineer	Yes	4,500 ₺
26	Male	Undergraduate	Chemical engineer	Yes	6,500 ₺
27	Female	Postgraduate	Master architect	Yes	6,500 ₺

It is worth noting that the data under the "income" category in the demographic information of the participants in the in-depth semi-structured interviews is from December 2021 (table 11).

Table 12. Survey and Interview Action List

ACTIONS
1-Use of electric vehicles (EVs)
EVs in public transport
EVs when selecting private vehicles
Replace private vehicles with EVs
Shared vehicles with EVs
2- Types of vehicles used in transportation
Public transport
Walking for suitable distances
Electric motor
Bike
Electric scooter
EVs for personal vehicles
EVs in shared vehicles
Shared vehicles
Drive less often
3-Transportation: minimizing transportation activities
Use domestic products instead of imported (vegetables, fruit, furniture...)
Cargo companies with carbon emission-free vehicles
Select regions with urban agriculture
4- Electronic appliances: It covers devices such as kitchen appliances and telephones that we use at home or in our daily life.
Energy-efficient products
Companies with environmentally friendly production processes and energy-saving features
Use electronic products until the end of their life cycle

Table 12. (cont.)

ACTIONS
Integration with IoT (Internet of Things)

Repaire minor issues instead of buying new ones

5- House-city-neighborhood preference: When buying or renting a house, choosing houses to cause less global warming

Thermal insulation in housing

Oriente houses based on sun angles during construction.

Build with green building certifications (e.g., LEED certification)

Advocate for green neighborhoods

6- Balcony-city agriculture

Urban farming on balconies

Rainwater harvesting

7- Waste recycling

Make compost from organic waste

Separate and recycle plastic, glass, paper, etc.

Proper disposal of electronic waste

Recycle batteries

8- Reducing the use of plastic

Recyclable and reusable bags

Personal flasks, glasses, thermoses, and reusable straws

Avoid plastic forks and spoons

Package materials made from recyclable materials

Companies that make waste-free Cargo

9- Use of water at home

Avoide unnecessary water wastage (e.g., turning off the tap while brushing teeth, washing hands)

Use water-saving dishwashers and washing machines

Minimize handwashing

Limite unnecessary time spent in the shower

10- Pollution prevention: preventing waste before it occurs

Opt for textile towels instead of paper towels

Choose recyclable materials instead of plastic materials (e.g., toothbrushes, chairs)

Use washable cotton/textile products for makeup removal instead of disposable cotton pads

11- Energy used in homes

Prefer renewable energy sources (solar, wind, biomass, etc.)

Adjust cooling temperatures to be 1 degree lower in summer

Adjust heating temperatures to be 0.5 degrees lower in winter

12- Brand preference

Use package materials made from recycled materials

Prefer brands that utilize environmentally friendly raw materials

Choose brands that prioritize pollution prevention in their production processes

Reducie carbon emissions in manufacturing and transportation (in each part of the supply chain) processes

Prefer brands that prioritize pollution prevention in their production processes.

Prefer environmentally/nature-friendly/sustainable places when choosing venues such as cafes and restaurants.

13- Sustainable food -Producing with respect to nature is important in all processes from agriculture to packaging, from packaging to the end user- prefering

Opt for low greenhouse gas emission foods (e.g., vegetables, fruits) over meat

Consume food that is in season and suitable for the local climate

By prevent carbon emissions and other gasses that cause climate change in agriculture with Agriculture 4.0 – to prefer products produced on farms that promise emissions.

Open bulk method or packaging made of recyclable material instead of plastic packaged products.

14- Reuse of used items (second-hand markets -buying-selling-)

Recycle or repurpose unusable items (e.g., clothing, furniture)

Buy or sell usable second-hand items (e.g., clothing, furniture)

15- Sustainable chemicals

Prefer environmentally friendly chemical products (e.g., detergents, personal care products

Table 12. (cont.)

ACTIONS
16- Digitization
Choose electronic and online tools over paper-based alternatives
Conduct transactions online whenever possible (e.g., online bill payments).)
Request digital documents instead of paper-printed versions, when available
Store digital files in external disks or other storage solutions, in addition to cloud storage

Then, the list (table 12) created was turned into a separate survey and applied to 77 different participants to measure what people's tendencies are. Survey respondents were asked to read these 68 statements (table 12) and choose between "I do" and "I would like to". Afterwards, a list of variables was created by sifting through the constructs we created and considering the in-depth semi-structured interview we made before. Considering the model and the variables in this list, questions were prepared for the survey. The survey, which we call pilot 1, was created and applied to a total of 7 people with different demographic characterist. After the implementation, arrangements were made according to the feedback and pilot 2 study was planned. As a result, 5 actions to which we wanted to contribute the most were identified, and they were evaluated. Then, the second quantitative study was started. Afterwards, a list of variables was created by sifting through the constructs the survey was created and implemented, considering the in-depth semi-structured interview conducted before. Considering the model and the variables in this list, questions were prepared for the survey. The survey, which is called study 2/pilot 1, was created and applied to a total of 6 people with different demographic characteristics. After the implementation, arrangements were made according to the feedback and study 2/pilot 2 study was planned. Study 2/Pilot 2 study with 100 questions was applied to 12 people and the questionnaire was finalized by analyzing it. The survey was finalized as a result of the evaluation and discussion of the reliability analysis made after the study 2/pilot 2 study. At the end of this analysis, 80 questions were asked in total, including demographics. Except for demographics (Table 13), 64 questions were measured with a 5-point likert scale (1-disagree; 5-agree), 2 multiple-choice questions and 4 open-ended questions. Table 14 shows the construct and items. Survey data were collected through google forms. This survey, which was completed in an average of 10-15 minutes, was distributed through various online channels (whatsapp, e-mail, instagram...). 296 people from various demographics participated in the survey. In Table 18, we see the demographic distribution of the participants.

Table 13. Demographic Questions

Demographic variables	Question Item
Gender	What is your gender?
Age	What is your age?
Education	What is your education status?
Occupation	What is your occupation?
Income	What is your monthly net income?
Marital	What is your marital status?

(cont. on next page)

Table 13. (cont.)

Demographic variables	Question Item
HouseholdSize	How many people live in your home? (including you)
Children	How many children do you live with in high school or below?
Car	Do you have a car?
Bicycle	Do you have a bike?

Table 14. Construct and Items

Items	Constructs	Questions Items
Aware1	Awareness	I am aware that increased carbon emissions are damaging the climate balance of the world (floods, droughts, health problems, extinction of species etc.).
Aware2	Awareness	I am aware of the negative effects of driving a vehicle on the environment.
Aware3	Awareness	I am aware that preferring public transportation, cycling, walking etc. instead of individual vehicles is less harmful to the environment
Concern1	Concern	I am worried about the increasingly deteriorating balance of the environment.
Concern2	Concern	The balance of nature is disrupted as a result of human intervention, creating environmental disasters.
Compatible	Compatibility	I make a good impression when I use methods that emit less carbon emissions, such as public transport, bicycles, scooters and walking.
Influence_Ext1	External Influence	Environmentally-friendly behavior by experts on climate change encourages/stimulates me in this regard
Influence_Ext2	External Influence	The fact that politicians act environmentally sensitive encourages me in this regard.
Influence_Ext3	External Influence	Social media content encourages people to take action on climate change.
Influence_Int1	Internal Influence	The thoughts of people I know around me influence my behavior.
Influence_Int2	Internal Influence	It affects me when people I know recommend methods such as public transportation, cycling and walking instead of individual vehicles.
NormSocial1	Social Norm	The majority of society welcomes green practices.
NormSocial2	Social Norm	The majority of society expects people to buy environmentally friendly products.
NormSocial3	Social Norm	I think I will make a good impression on the majority of society by using bicycles, electric scooters etc.
NormSocial4	Social Norm	If I use/prefer public transport, the majority of the community will appreciate my behavior.
SelfEfficacy	Self efficacy	I can use a bike.
Responsible1	Responsibility	Which do you think is the leading stakeholder in the fight against climate change? Consumers-State-Industrial organizations-NGOs-Municipalities
NormSocial2	Social Norm	The majority of society expects people to buy environmentally friendly products.
NormSocial3	Social Norm	I think I will make a good impression on the majority of society by using bicycles, electric scooters etc.
NormSocial4	Social Norm	If I use/prefer public transport, the majority of the community will appreciate my behavior.

(cont. on next page)

Table 14. (cont.)

Items	Constructs	Questions Items
SelfEfficacy	Self efficacy	I can use a bike.
Responsible1	Responsibility	Which do you think is the leading stakeholder in the fight against climate change? Consumers-State-Industrial organizations-NGOs-Municipalities
Responsible2	Responsibility	I think that individuals have an important role in the fight against climate change
Responsible3	Responsibility	I think that local governments have an important place in sustainable transportation.
Transparent1	Transparency	Competent authorities should share the practices and results they have done to protect the environment.
Transparent2	Transparency	It is important for me that the results of the practices made to protect the environment are announced by the relevant management
Infrastructure1	Infrastructure	Since there is no suitable route for me, I cannot choose public transportation
Infrastructure2	Infrastructure	I cannot choose a bicycle because there is not enough infrastructure
Infrastructure3	Infrastructure	I cannot choose to walk because there is not enough infrastructure.
Incentive1	Incentive	The discounted bike prices encourage me to use a bike
Incentive2	Incentive	Planting a sapling for the bike I bought encourages me morally.
Incentive3	Incentive	As someone who rides a bicycle, getting discounts on water, coffee, and other goods at cafes encourages me.
Involve1	Involvement	I want to actively participate in the activities of municipalities, non-governmental organizations, etc. related to the climate crisis.
Involve2	Involvement	I would like to have a say in the decisions to be taken by municipalities and non-governmental organizations regarding the environment
Regulation1	Regulation	More government regulation is needed to force people to do something to protect the environment.
Regulation2	Regulation	The state does not have enough control over its environmental regulations.
Safety1	Safety	I think it is safe to use a bicycle in traffic.
Safety2	Safety	I hesitate to use a bicycle in traffic.
Security	Security	The possibility of my bike being stolen worries me.
Cost1	Cost	The purchase cost of the bike is a barrier to using the bike.
Cost2	Cost	The maintenance cost of the bike prevents me from using the bike.
Cost3	Cost	The financial gain while using a bicycle encourages me to use a bicycle (saving gas, saving tickets, etc.).
EoU1	Ease of Use	I do not want to give up my current comfort by exhibiting environmentalist behavior.
EoU2	Ease of Use	It is difficult to use a bicycle on the way to work due to weather conditions (rain, heat, etc.).
EoU3	Ease of Use	I don't want to use a bike on the way to work because it is tiring.
EoU4	Ease of Use	The difficulty of carrying a computer, cell phone, etc. on the bike prevents me from using a bicycle on the way to work.
EoU5	Ease of Use	The difficulty of cycling in fast flowing traffic prevents me from cycling.
EoU6	Ease of Use	The bike is difficult to maintain.
EoU7	Ease of Use	I think that when I park my bike somewhere, it might get damaged.

(cont. on next page)

Table 14. (cont.)

Items	Constructs	Questions Items
Useful1	Usefulness	It is wise to act sensitively to the environment so that the negative effects of the climate crisis do not occur in 15 years.
Useful2	Usefulness	It is wise to act environmentally sensitive so that the next generation (my children, my grandchildren ..) does not experience the negative effects of the climate crisis.
Useful3	Usefulness	Using a bicycle, electric scooter, etc., during heavy traffic, saves time.
Useful4	Usefulness	I think walking is slower than other modes of transportation.
Useful5	Usefulness	It is comfortable to drive a private (individual) vehicle.
Useful6	Usefulness	Cycling and walking instead of using a motor vehicle are beneficial for health.
Useful7	Usefulness	I think walking relaxes me.
Useful8	Usefulness	Walking is beneficial to my health.
Attitude1	Attitude	I am inclined to do something individually to prevent the climate crisis.
Attitude2	Attitude	I am in favor of using personal motorized vehicles less frequently.
Attitude3	Attitude	I am open to using public transportation.
Attitude4	Attitude	I'm in favor of walking to suitable places.
Use1	Use	I am personally doing something to prevent the climate crisis.
Use2	Use	I use individual motor vehicles less frequently.
Use3	Use	I use public transport.
Use4	Use	I walk to the appropriate places.
Use5	Use	I use a bicycle, electric scooter etc. as a means of transportation.
Innovate1	Innovate	Innovations should be made in micromobility in terms of usability and safety.
Innovate2	Innovate	Initiatives on micromobility should be encouraged in terms of usability and safety.
Reaction1	Reaction	I will boycott companies that generate carbon emissions.
Reaction2	Reaction	I will participate in climate change protests and marches.
SPattern	Solution Pattern	Choose the 3 most important issues for you in terms of preventing the climate crisis 1- Use of electric cars (vehicles) 2- Preferring vehicles such as bicycles and scooters for transportation 3- Minimizing transportation activities, doing local shopping, too much logistics 4- Choosing energy-efficient electrical appliances that we use at home or in our daily life
SPattern (cont.).	Solution Pattern	5- Choosing houses to cause less global warming when buying or renting a house 6- Minimizing logistics mobility with balcony-urban agriculture 7- Ensuring waste recycling 8- Reducing the use of plastic 9- Avoiding waste by managing water use in homes 11- Renewable energy used in homes 12- Preferring brands that support environmental sustainability 14- Sustainable chemicals (such as detergents that do not harm the environment) 15- Digitalization: Preferring electronic and online tools such as computers, telephones, etc. instead of using paper.

Table 15 represents the current behavior of people who take the survey.

Table 15. Current Behavior of Participant

Do you have a car?
Do you have a bike?
How many days a month do you use a private car to go to work?
How many days a month do you use public transport to go to work?
How many days a month do you use your bike to go to work?
How many days a month do you walk to work?

Data cleaning was done and analysis was started. The SPSS statistical program was used as a tool for analysis. First, reliability analyzes was performed. Following these, correlation, nonparametric correlations (Kendall, Spearman), frequencies, (Independent Samples Test), compare means, linear regression and finally cluster analysis were performed and reporting was done. For the results of these analyses, you can refer to the findings section.

CHAPTER 5

FINDINGS

5.1. Findings of Interview

When the interview is looked at, it is observed that people are generally aware of the climate crisis. However, it is seen that if they did not receive training on this issue, they did not know what to do as a solution and did not envisage much about this issue before. When asked whether they want to do something individually, they say that they want to contribute individually. Still, they will do so if it is a social movement and a large part of the society participates. They believe this should be regulated at the state level. Participants think that individuals should be compelled outside of individual effort such as legal obligation, control, regulation with taxes. They want the responsibility to be shared equally. One of the most apparent results of the interviews is the economic/monetary problems that come at the forefront of the obstacles encountered when it is desired to take individual measures on climate change. Country and government policies follow this obstacle. Participants who received training on the climate crisis think that the impact of an improvement in production processes will be greater. When the demographic is looked at, it is observed that male interviewees think that they see a more pessimistic picture and that climate change is unavoidable.

In the interviews, it is seen that people adopt the activities that they learned in childhood, such as not wasting water and turning off the lights, reducing consumption, and realizing these activities as a habit. These behaviors learned in childhood remained as habits for the rest of their lives, and these habits were transformed and added. This finding reveals how important the childhood period is in terms of adaptation.

In table 16, we see the most studied variables in the literature review and their frequencies in the interview. In the interview, new factors that were not encountered in the literature were discovered. These are helpless, legal regulation, legal enforcement,

feeling good, afraid, trust, dependence, limited-time, unemployment, access to a limited product, infrastructure, comfort.

Except for intermediary variables intention (Claudy, Peterson, and O'Driscoll 2013) (Kapoor and Dwivedi 2020) (Akman and Mishra 2014) (Dahlinger and Wortmann 2016) (Huang and Qian 2021) and attitude (Asadi et al. 2015) (Adnan, Nordin, and Rasli 2019) (Jung, Choi, and Oh 2020) are most studied variables. While the concepts of value (Ozaki 2011) (Nath et al. 2013) (Claudy, Peterson, and O'Driscoll 2013) (Zhu et al. 2013), social pressure (Dahlinger and Wortmann 2016) (Scott, Oates, and Young 2015), and behavior control (Asadi et al. 2015) (Akman and Mishra 2014) (Eccarius and Lu 2020) (Zhang et al. 2019) are studied a lot in the literature, we mostly encounter the concepts of value, awareness, usefulness, and environmental concern in the semi-structured interview we created. See Table 16.

Survey participants, 89% of whom have a bachelor's or associate's degree, stated that the most important and leading stakeholder in climate change is the State with 39%. 'Consumers' is 18% in this table. Other stakeholders are non-governmental organizations, industrial organizations, and municipalities. 24% of women and 4% of men think that the most critical stakeholder is consumers. From this, it can be deduced that women are more prone to take action individually.

In 2022, the rate of those who think that climate change will affect the decision-making processes in their daily life is 91%.

Table 16. Influential Factors of Green-Aware Actions

Construct	Count (LR)	Interviews
Intention	25	X
Attitude	23	XXX
Value	14	XXX
Perceived Social Pressure	14	XX
Behavior Control	11	X
Awareness	9	XXX
Personal Norm	6	X
Usefulness	6	XXX
Compatibility	6	X
EoU	4	X
Feeling of responsibility	4	XX
Relative advantage	3	XX
Environmental Concern	3	XXX

The European Investment Bank conducted a study called Climate Change a Key Factor in Decision-Making for 2020. In this study, some activities in the USA, Europe, and China on preventing climate change in 2020 were listed, and the participants were asked whether they would do it or not. With the survey we conducted, we researched these activities for the year 2022 in TR (sample size 77) and compared them with these ready data. When Figure 3 is looked at, it is seen that the sample in Turkey does not promise a big change in behavior other than buying less plastic. This result indicates that a separate study is needed.

When China, the USA, Europe, and Turkey are looked at, it is seen that participating in protests or marches for climate change and boycotting carbon negative companies are among the least planned actions, while consuming less plastic is the most deliberate action. It can be understood from the rates in the chart that China wants to take serious effort on this issue. Figure 3 includes data for Europe, China, and the US, which were obtained from the European Investment Bank. The data for Turkey, on the other hand, was derived from Study 1.
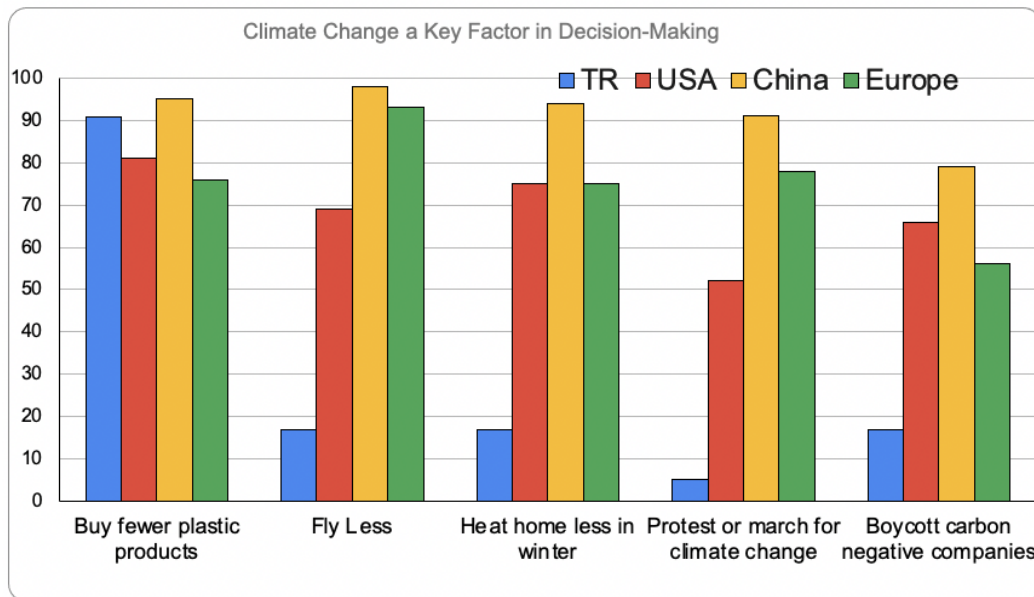
Figure 4. Climate Change a Key Factor in Decision-Making

We conducted a field survey with 64 remedy actions under 16 categories, and the participants were given 'do' and 'wish to do' options for each step in the list. Each category had found the different reactions from our sample, people have already adopted some, and some are not found to be attractive yet (figure 4)

When Figure 4 is looked at, it is seen that actions that are more expensive in terms of cost and actions that are not in their hands in terms of infrastructure are not taken by people. However, activities that depend on their preferences are generally declared to be done. This brings us to the fact that the institutions in charge of infrastructure should provide the necessary infrastructure in this area and that we make choices within the financial means.
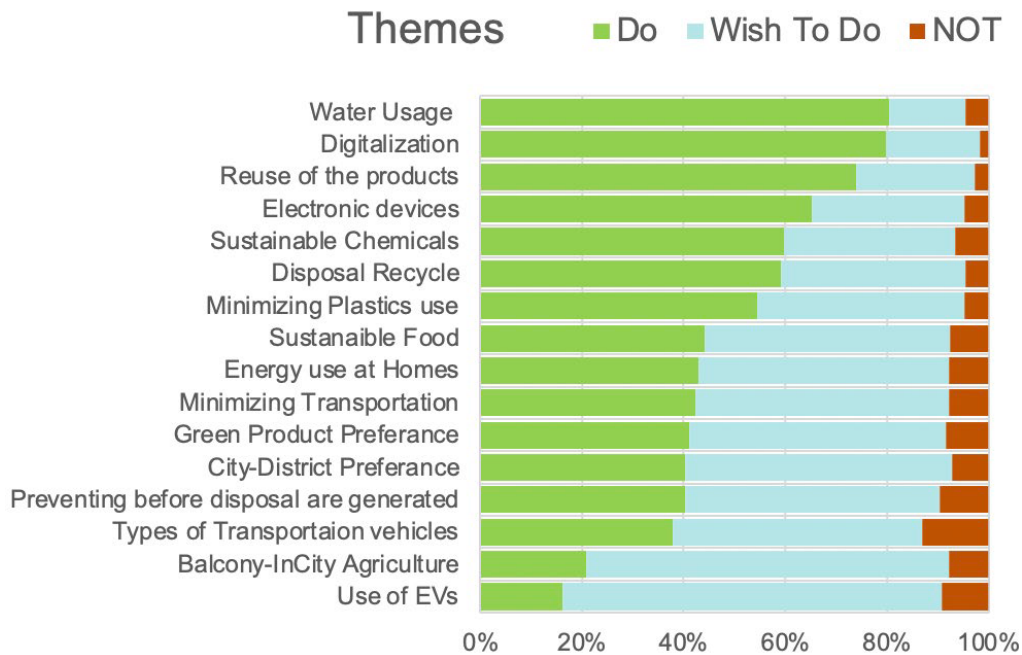
Figure 5. Attraction of Actions Categories

As a result of the analysis, the 5 most-done actions and the 5 most-desired actions are seen in table 17. According to this, even as a relative advantage in preventing climate change, the most common ones are 'Preferring to walk to suitable places', 'Not leaving water unopened', 'Doing both online and manual transactions online', 'To digitally request documents that can also be obtained digitally, such as paper invoices, credit card statements', 'Choosing energy-efficient products'. The actions they want to contribute the most are 'Harvesting rainwater', 'Preferring EVs in individual vehicles' 'Preferring washable cotton/textiles instead of disposable cotton for make-up removal', 'Preferring an electric motor', 'EVs prefer shared vehicles'. It is seen that "to prefer shared vehicles". It is a remarkable detail that 3 out of 5 of the actions they want to contribute the most are about the types of vehicles used in transportation. It is thought that the action of 'Preferring washable cotton/textile products instead of

disposable cotton for make-up removal' is in the top 5 is related to the fact that 70,1% of the survey participants are female.

Table 17. Most and Least Preferred/Realized Actions

Action	Wish To Do	Do
Prefer to walk to suitable places.	5%	94%
Not leaving the water running unnecessarily (for example, the water should not be left on while brushing teeth, washing hands.).	4%	92%
Making both online and manual transactions online (for example, paying bills from the bank application.	10%	90%
To digitally request documents that can also be obtained digitally, such as paper inbc oices, credit card statements.	14%	86%
Use an existing one with a few repairs instead of buying a new one.	13%	84%
…		
Preferring washable cotton/textiles instead of disposable cotton for make-up removal.	70%	12%
Preferring EVs in individual vehicles.	74%	10%
EVs prefer shared vehicles.	71%	9%
Preferring an electric motor.	9%	1%

5.2.   Profile of Respondents of the Experimental Study 2

Frequency analysis was performed on demographic variables. The results are presented in table 18. See appendices for more detailed table values.

Table 18. Profile of Respondents

Range	Frequency	Percent	Valid Percent	Cumulative Percent
Age				
15-25	55	18.6	18.6	18.6
26-35	106	35.8	35.8	54.4
36-45	66	22.3	22.3	76.7
46-55	52	17.6	17.6	94.3
56-65	13	4.4	4.4	98.6
66 or above	4	1.4	1.4	100
Gender				
Female	184	62.2	62.2	62.2
Male	109	36.8	36.8	99
Not specify	3	1	1	100
Education				
Primary school	11	3.7	3.7	3.7
High school	42	14.2	14.2	17.9
Associate Degree	26	8.8	8.8	26.7
Undergraduate	170	57.4	57.4	84.1
Graduate	40	13.5	13.5	97.6
PhD	7	2.4	2.4	100

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Table 18. (cont.)

Range	Frequency	Percent	Valid Percent	Cumulative Percent
Income				
8.500 or below	49	16.6	16.6	16.6
8.501-10.500	51	17.2	17.2	33.8
10.501-15.000	73	24.7	24.7	58.4
15.001-25.000	89	30.1	30.1	88.5
25.001-35.000	16	5.4	5.4	93.9
35.001 or above	18	6.1	6.1	100
HouseholdSize				
1	37	12.5	12.5	12.5
2	72	2.3	24.4	36.9
3	90	30.4	30.5	67.5
4	74	25	25.1	92.5
5	13	4.4	4.4	96.9
6 and above	9	3	3	100
Marital				
Married	136	45.9	45.9	45.9
Single	160	54.1	54.1	100
Car				
Not Have	133	44.9	44.9	44.9
Have	163	55.1	55.1	100
Bicycle				
Not Have	206	69.6	69.6	69.6
Have	90	30.4	30.4	100
Day_Car				
0	146	49.3	49.3	49.3
1-10	67	22.5	22.5	72
11-20	42	14.1	14.1	86.1
21-30	41	13.7	13.7	100
Day_PublicT				
0	126	42.6	43	43
1-10	68	23	21.3	66.2
11-20	49	17.5	16.6	84
21-30	47	15.8	15.9	100
Day_Bicycle				
0	287	97	97	97
1-10	5	1.5	1.5	98.6
11-20	2	0.6	0.6	99.3
21-30	2	0.6	0.6	100
Day_Walk				
0	176	59.5	60.5	60.5
1-10	44	14.7	15.1	75.6
11-20	25	8.5	8.7	84.2
21-30	45	15.5	14.4	99.7
31	1	0.3	0.3	100

5.3. Reliability Analysis

Reliability analysis is employed to assess the dependability and consistency of a measurement instrument. SPSS was used for this analysis. Aware, Concern, Internal influence, External influence, Social Norm, Responsible, Transparent, Infrastructure, Incentive, Involve, Regulation, Safety, Cost, EoU, Useful, Attitude, Use, Innovate, Reaction are items with more than one question. Reliability was evaluated based on the Cronbach's Alpha value, and variables with values above 0.60 were accepted. Cronbach's Alpha values, item counts and constructs are shown in table 19.

Table 19. Reliability Analysis

Construct	Number of Question Items	Cronbach's Alpha	C. Item-Total Correlation
Aware	3	0.75	0.51
Concern	2	0.81	0.69
Influence_Int	2	0.61	0.45
Influence_Ext	3	0.80	0.64
NormSocial	4	0.74	0.47
Responsible	3	0.15	-0.12
Transparent	2	0.79	0.66
Infrastructure	3	0.68	0.44
Incentive	3	0.73	0.49
Involve	2	0.80	0.67
Regulation	2	0.81	0.69
Safety	2	0.29	0.17
Cost	3	0.13	-0.30
EoU	7	0.71	0.31
Useful	7	0.68	-0.17
Attitude	4	0.76	0.53
Use	5	0.64	0.29
Innovate	2	0.89	0.81
Reaction	2	0.82	0.71

5.4. Descriptive Statistics

The descriptive statistics provide a summary of the data collected (table 20). The sample consists of 296 participants. In general, the averages of Aware and Concern are quite high, that is, the awareness of individuals is high and they are quite worried, but Use is at an average value. This can be interpreted as individuals' awareness and concerns are not yet sufficient to take action. Safety has the lowest average. In other words, it is understood that individuals do not have any reservations about the use of

bicycles in traffic. It is seen that it is very important for individuals in Transparent, Regulation, and Useful.

Table 20. Descriptive Statistics

Construct	N	Mean	Minimum	Maximum	Std. Deviation
Concern	296	4.71	1.00	5.00	0,71
Aware	296	4.68	1.00	5.00	0,67
Regulation	296	4.63	1.00	5.00	0,76
Useful	296	4.59	1.83	5.00	0,60
Transparent	296	4.56	1.00	5.00	0,75
Innovate	296	4.39	1.00	5.00	0,92
Attitude	296	4.26	1.00	5.00	0,80
Influence_Ext	296	4.09	1.00	5.00	1,01
Incentive	296	3.93	1.00	5.00	1,07
Involve	296	3.83	1.00	5.00	1,08
Influence	296	3.74	1.00	5.00	0,94
Use	296	3.66	1.20	5.00	0,83
Responsible	296	3.58	1.33	5.00	0,67
NormSocial	296	3.47	1.00	5.00	0,99
Reaction	296	3.31	1.00	5.00	1,24
EoU	296	3.30	1.00	5.00	0,80
Influence_Int	296	3.21	1.00	5.00	1,14
Infrastructure	296	3.17	1.00	5.00	1,26
Cost	296	2.91	1.00	5.00	0,80
Safety	296	1.87	1.00	5.00	1,30

5.5.   Correlation Analysis

In order to examine the relationship between constructs, a correlation analysis was performed. Table 21 displays the correlation results for the constructs.

The correlation analysis results, as shown in table 20, provide valuable insights into the relationships between different constructs. Firstly, the analysis indicates that there is a low or negligible correlation between Ease of Use (EoU) and the other constructs,

suggesting that perceived usability does not significantly affect other variables. On the other hand, a strong correlation is observed between the constructs of Useful and Attitude, highlighting that users' perception of usefulness can greatly influence their attitudes towards a product or service. Moreover, a significant correlation between Attitude and Use suggests that users' attitudes play a crucial role in determining their actual usage behavior.

The constructs of Security, Aware, and Concern also exhibit varying degrees of correlation with other constructs. For instance, Security shows positive correlations with Attitude, Use, and Useful, indicating that users' sense of security contributes to their attitudes and usage patterns. Additionally, the analysis reveals a notable correlation between Innovate and constructs such as Useful, Attitude, and Use, suggesting that innovative features can have a substantial impact on usage frequency and positive user attitudes.

In summary, the correlation analysis underscores the interconnected nature of different constructs. Factors such as usability, attitude, and usage frequency are closely linked, while user concerns, security perceptions, and awareness exert influence on these relationships. These findings can be leveraged to inform the development of effective strategies aimed at better understanding the relevant constructs and shaping user behavior in a favorable manner.

Table 21. Correlation Results

		EoU	Useful	Attitude	Use
Compatible	Pearson Correlation	-0.042	0.406	0.409	0.31
	Sig.(2-tailed)	0.467	0	0	0
Security	Pearson Correlation	0.312	0.118	0.124	0.161
	Sig.(2-tailed)	0	0.043	0.033	0.006
Aware	Pearson Correlation	0.016	0.391	0.38	0.182
	Sig.(2-tailed)	0.79	0	0	0.002
Concern	Pearson Correlation	0.11	0.437	0.332	0.224
	Sig.(2-tailed)	0.059	0	0	0
Influence_Int	Pearson Correlation	0.132	0.306	0.336	0.314
	Sig.(2-tailed)	0.023	0	0	0
Influence_Ext	Pearson Correlation	0.034	0.469	0.449	0.316
	Sig.(2-tailed)	0.563	0	0	0
NormSocial	Pearson Correlation	0.083	0.353	0.335	0.357
	Sig.(2-tailed)	0.155	0	0	0
Responsible	Pearson Correlation	-0.003	0.427	0.386	0.194
	Sig.(2-tailed)	0.953	0	0	0.001
Transparent	Pearson Correlation	0.119	0.531	0.453	0.307
	Sig.(2-tailed)	0.041	0	0	0

Table 21. (cont.)

		EoU	Useful	Attitude	Use
Infrastructure	Pearson Correlation	0.242	0.055	0.06	-0.052
	Sig.(2-tailed)	0	0.345	0.3	0.372
Incentive	Pearson Correlation	0.157	0.379	0.344	0.323
	Sig.(2-tailed)	0.007	0	0	0
Involve	Pearson Correlation	0.007	0.392	0.412	0.312
	Sig.(2-tailed)	0.906	0	0	0
Regulation	Pearson Correlation	0.149	0.467	0.404	0.211
	Sig.(2-tailed)	0.01	0	0	0
Safety	Pearson Correlation	-0.114	-0.104	-0.101	0.064
	Sig.(2-tailed)	0.049	0.074	0.082	0.273
Innovate	Pearson Correlation	0.021	0.561	0.555	0.392
	Sig.(2-tailed)	0.72	0	0	0
Reaction	Pearson Correlation	-0.028	0.321	0.379	0.378
	Sig.(2-tailed)	0.63	0	0	0
EoU	Pearson Correlation	1	-0.063	-0.008	-0.03
	Sig.(2-tailed)	0	0.282	0.885	0.61
Useful	Pearson Correlation	-0.063	1	0.694	0.447
	Sig.(2-tailed)	0.282	0	0	0
Attitude	Pearson Correlation	-0.008	0.694	1	0.6
	Sig.(2-tailed)	0.885	0	0	0

5.6. Regression Analysis Results

In order to explain the relationship between daily life transportation choices and adaptation constructs in terms of environmental sustainability, a linear regression analysis was performed. This analysis was performed with SPSS. The detailed results of the regression analysis are shown in table 22.

Table 22. Results of Regression Analysis

R Square	Adjusted R Square	Dependent	Independent	Standardized Coefficients Beta	Std. Error	Sig
0.388	0.384	Use	(Constant)		0.216	0
			Attitude	0.541	0.050	0
			NormSocial	0.176	0.041	0
0.510	0.507	Attitude	(Constant)		0.254	0.673
			Useful	0.629	0.059	0
			Involve	0.177	0.033	0
0.430	0.422	Useful	(Constant)		0.215	0
			Transparent	0.326	0.048	0
			Concern	0.168	0.044	0.001
			Regulation	0.184	0.045	0.001
			Influence_Ext	0.163	0.032	0.002

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Table 22 (cont.)

R Square	Adjusted R Square	Dependent	Independent	Standardized Coefficients Beta	Std. Error	Sig
0.155	0.149	EoU	(Constant)		0.165	0
			Security	0.31	0.031	0
			Infrastructure	0.24	0.034	0

Based on this regression analysis, the framework analysis figure 5 was created.
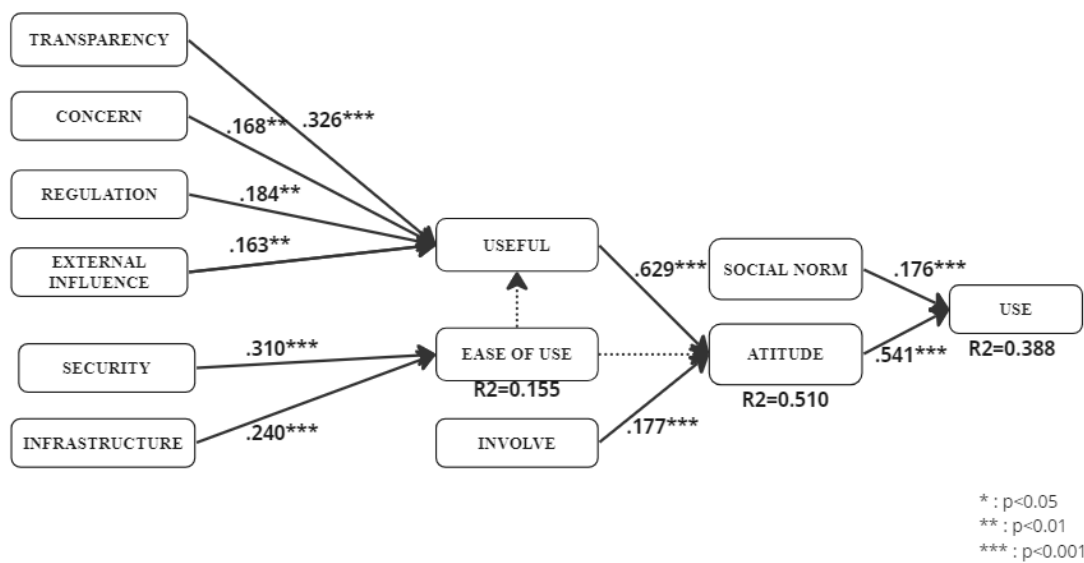
Figure 6. Results of Public Transportation-Micro Mobility Adoption Framework in Environmental Sustainability

The variables "Attitude" and "Social Norm" are direct determinants of "Use". "Attitude" and "Social Norm" variables have a statistically significant effect on the dependent variable "Use". While the effect of "Attitude" variable on "Use" is higher (0.540, p<.001), the effect of "NormSocial" variable is lower (0.176, p<.001).

"Attitude" is directly affected by "Involve" (0.177, p<.001) and "Useful"(0.629, p<.001) variables. These variables explain 0.510 of the attitude.

"Transparent"(0.326, p<.001), "Concern"(0.168, p<.01), "Regulation"(0.184, p<.01), and "External Influence"(0.163, p<.01) are direct determinants of "Useful". These variables explain 0.430 of the useful.

"Security"(0.310, $p<.001$) and "Infrastructure"(0.240, $p<.001$) are direct determinants of ease of use. These variables explain 0.155 of the ease of use.

As in other adoption models, ease of use and useful do not affect each other. There is no connection between them. This situation also exists between attitude and ease of use. Although ease of use is a direct determinant of attitude in other models, there is no such connection with our study.

According to the regression analysis, 10 hypotheses were accepted. Table 23 summarizes proposed hypotheses and results with significant values.

Table 23. Results of Hypothesis

Hypothesis	Dependent Variable	Independent Variable	Result
H1	Use	Attitude	Supported
H2	Use	Social Norm	Supported
H3	Attitude	Usefulness	Supported
H4	Attitude	Ese of Use	Not Supported
H5	Usefulness	Ease of Use	Not Supported
H6	Attitude	Involve	Supported
H7	Usefulness	Transparency	Supported
H8	Usefulness	Concern	Supported
H9	Usefulness	Regulation	Supported
H10	Usefulness	External influence	Supported
H11	Ease of Use	Security	Supported
H12	Ease of Use	Infrastructure	Supported

5.7. Cluster Analysis

Cluster analysis was conducted to assess the behavioral group segmentation of individuals. SPSS was employed as the tool for this analysis. Individuals displaying similar behavioral patterns were grouped together. At this stage, cluster analysis was performed on groups consisting of 3 and 4 clusters from 2 different construct groups.

Initially, cluster analysis was conducted using the variables compatible, security, aware, concern, internal influence, external influence, social norm, responsible, transparent, infrastructure, incentive, involve, regulation, safety. The analysis was performed on groups consisting of 3 and 4 clusters. The third and fourth cluster groups from this analysis, referred to as typology 1, are presented below along with their naming and behavioral patterns

5.7.1. Cluster Typology 1- Three Cluster

Table 24 shows how many members are in each group. According to the table, one hundred thirteen, six and one hundred seventy-seven indicate group members. The names of the groups are given as Rule-based, Unattached, Concerned, respectively.

Table 24. Cluster Typology 1 - Number of Cases for Three Clusters

Clusters No	Clusters Label	Number of Cases
1	Rule-based	113
2	Unattached	6
3	Concerned	177

Table 25. Cluster Typology 1 - Distances Between Final Cluster Centers

Cluster	Rule-based	Unattached	Concerned
Rule-based	-	6.406	3.078
Unattached	6.406	-	9.017
Concerned	3.078	9.017	-

Table 26 displays the distribution of cluster groups based on gender. The "Concerned" group is constituted by 69% females, whereas the "Unattached" group is comprised of 83% males. Please refer to the appendix for other demographic information tables.

Table 26. Gender Distribution of Typology 1 Cluster 1

Gender	Rule-based	Unattached	Concerned	Total
Female	54%	0%	69%	62%
Male	46%	83%	29%	37%
Non- specify	0%	17%	1%	1%
Total	100%	100%	100%	100%

The result of the cluster analysis is illustrated in figure 6.

The first group has been referred to as rule-based. It is a group that is less influenced by others and more affected by regulations, and for them, the transparency of these regulations is important.

The second group was labeled as unattached. This is a group that remains distant from these matters, lacking significant awareness or concerns.

The third group was named Concerned. It's a highly aware and concerned group, compatible with high regulation and transparency. They align with regulations characterized by transparent processes, and it's important for their behaviors to be compatible with their lives as well.
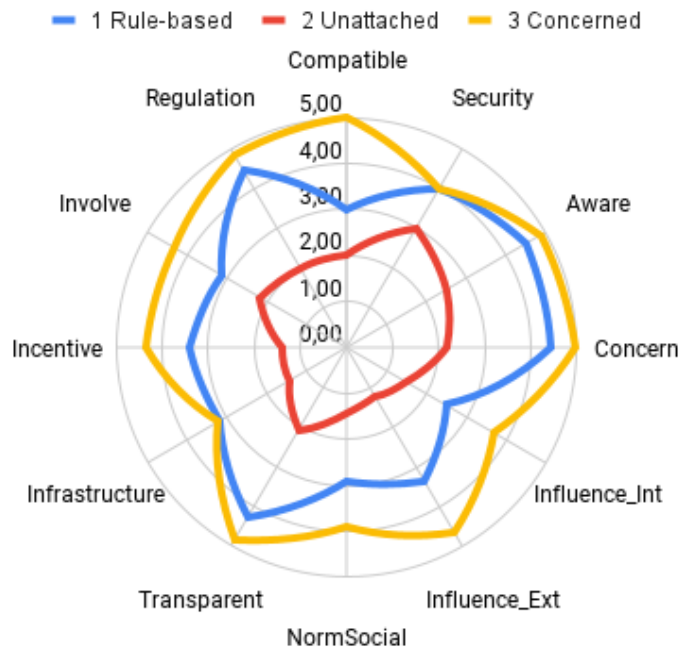
Figure 7. Cluster Typology 1 for Three Clusters

5.7.2. Cluster Typology 1 –Four Cluster

Table 27 shows how many members are in each group. According to the table, the number of members of their groups is five, sixty-eight, ninety-six and one hundred twenty-seven, respectively. Group names are Irrelevant, Risk-taker, Undifferentiated, Security-minded, respectively.

Table 27. Cluster Typology 1 - Number of Cases for Four Clusters

Clusters No	Clusters Label	Number of Cases
1	Irrelevant	5
2	Risk-taker	68
3	Undifferentiated	96
4	Security-minded	127

Table 28. Cluster Typology 1 - Distances between Final Cluster Centers

Cluster	Irrelevant	Risk-taker	Undifferentiated	Security-minded
Irrelevant	-	8.846	6.966	9.919
Risk-taker	8.846	-	3.393	3.066
Undifferentiated	6.966	3.393	-	3.373
Security-minded	9.919	3.066	3.373	-

Table 29 displays the distribution of cluster groups based on gender. The "Security-minded" group is composed of 72% females, whereas the "Irrelevant" group is formed by 80% males. Please refer to the appendix for other demographic information tables.

Table 29. Gender Distribution of Typology 1 Cluster 2

Gender	Irrelevant	Risk-taker	Undifferentiated	Security-minded	Total
Female	0%	60%	54%	72%	62%
Male	80%	40%	46%	27%	37%
Non- specify	20%	0%	0%	2%	1%
Total	100%	100%	100%	100%	100%

The result of the cluster analysis is illustrated in figure 7.

The first group was termed as "Irrelevant." This group, while not very involved, has relatively higher factors of security and transparency compared to other factors.

The second group was labeled as "Risk-taker." The lowest factor for this group is security. It shares very similar characteristics with the fourth group.

The third group was designated as "Undifferentiated." This group's susceptibility to influence from others is quite low, while regulations and transparency are important factors. Compatibility is not very crucial for them.

The fourth group was termed "Security-minded." This group is generally very aware and engaged. The most significant distinction from other groups is their high emphasis on security. They share close values with the second group.
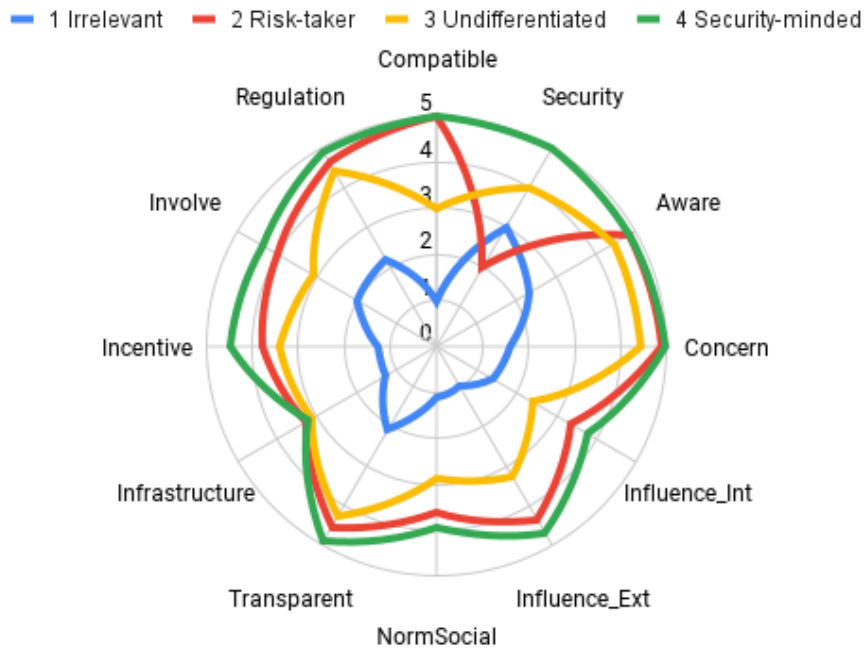
Figure 8. Cluster Typology 1 for Four Clusters

5.7.3. Cluster Typology 2 – Three Clusters

Initially, cluster analysis was conducted using the variables compatible, security, aware, concern, internal influence, external influence, social norm, responsible, transparent, infrastructure, incentive, involve, regulation, safety, ease of use, useful, attitude. The analysis was performed on groups consisting of 3 and 4 clusters. The third and fourth cluster groups from this analysis, referred to as typology 2, are presented below along with their naming and behavioral patterns.

Table 30 shows how many members are in each group. According to the table, the number of members of their groups was ninety-three, sixty-seven and one hundred thirty-six, respectively. Group names are Non-other-orianted, Non-focused-security, All-relevant, respectively.

Table 30. Cluster Typology 2 - Number of Cases for Three Clusters

Clusters No	Clusters Label	Number of Cases
1	Non-other-orianted	93
2	Non-focused-security	67
3	All-relevant	136

Table 31. Cluster Typology 2 - Distances between Final Cluster Centers

Cluster	Non-other-orianted	Non-focused-security	All-relevant
Non-other-orianted	-	3.819	3.915
Non-focused-security	3.819	-	2.963
All-relevant	3.915	2.963	-

Table 32 displays the distribution of cluster groups based on gender. While 73% of the "All-relevant" group consists of females, 53% of the "Non-other-oriented" group is comprised of males. Please refer to the appendix for other demographic information tables.

Table 32. Gender Distribution of Typology 2 Cluster 1

Gender	Non-other-orianted	Non-focused-security	All-relevant	Total
Female	46%	63%	73%	62%
Male	53%	37%	26%	37%
Non- specify	1%	0%	1%	1%
Total	100%	100%	100%	100%

The result of the cluster analysis is illustrated in figure 8.

The first group was named "Non-other-oriented." This group is less influenced by others, having their own awareness and concerns. Regulation and transparency are important, as well as security and usefulness, which are important factors across all groups.

The second group was named "Non-Focused-Securit." While differing significantly from the second group in terms of the security factor, it shares a similar structure with the third group. The security factor of the second group is notably low.

The third group was designated as "All-relevant." This is a group that is relevant to most factors; however, it's notable that they don't consider infrastructure to be of significant importance. They aren't heavily influenced by those around them, and although the "ease of use" factor is slightly higher compared to other groups, it doesn't seem to be highly influential.
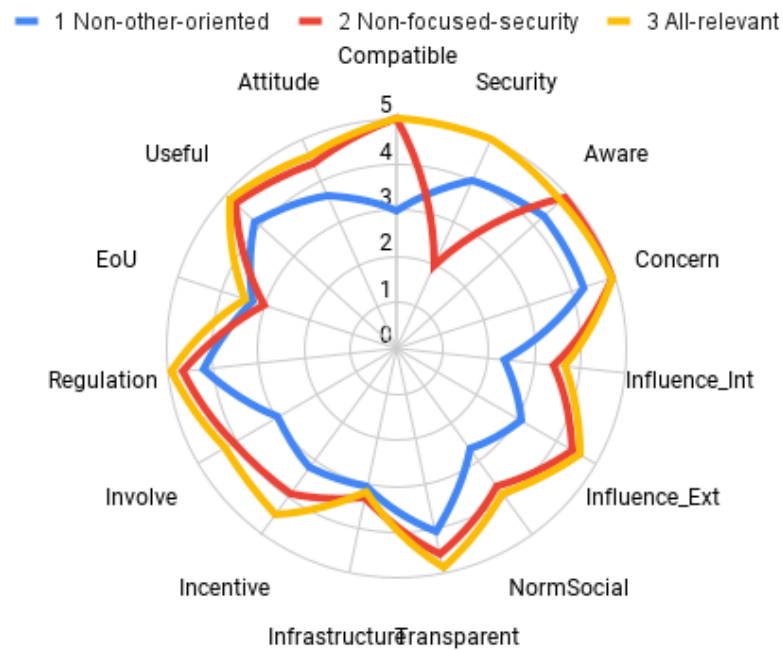
Figure 9. Cluster Typology 2 for Three Clusters

5.7.4. Cluster Typology 2 - Four Clusters

Table 33 shows how many members are in each group. According to the table, the number of members of their groups is twelve, ninety-seven, sixty-one and one hundred twenty-six, respectively. Their names are Neutral-Impartial, Autonomous Advocates, Progressive Prioritizers, Comprehensive, respectively.

Table 33. Cluster Typology 2 - Number of Cases for Four Clusters

Clusters No	Clusters Label	Number of Cases
1	Neutral-Impartial	12
2	Autonomous Advocates	97
3	Progressive Prioritizers	61
4	Comprehensive	126

Table 34. Cluster Typology 2 - Distances between Final Cluster Centers

Cluster	Neutral-Impartial	Autonomous Advocates	Progressive Prioritizers	Comprehensive
Neutral-Impartial	-	4.956	6.803	7.75
Autonomous Advocates	4.956	-	3.464	3.303
Progressive Prioritizers	6.803	3.464	-	3.199
Comprehensive	7.75	3.303	3.199	

Table 35 displays the distribution of cluster groups based on gender. In the Comprehensive group, the most extreme two points consist of 73% females, while in the Neutral-Impartial group, 75% of its composition comprises males. Please refer to the appendix for other demographic information tables.

Table 35. Gender Distribution of Typology 2 Cluster 2

Gender	Neutral-Impartial	Autonomous Advocates	Progressive Prioritizers	Comprehensive	Total
Female	17%	55%	61%	73%	62%
Male	75%	45%	39%	25%	37%
Non- specify	8%	0%	0%	2%	1%
Total	100%	100%	100%	100%	100%

The result of the cluster analysis is illustrated in figure 9.

The first group was named "Neutral-Impartial". There isn't a significant differentiation in any factor; their values generally tend to be around the average. Infrastructure and compatibility are relatively lower compared to other values.

The second group was labeled "Autonomous Advocates." They don't place much importance on what others think about them. They value regulations and the transparency of regulations. Usefulness is also an important factor for them, as much as transparency.

The third group was named "Progressive Prioritizers." While this group tends to have average values for other factors, ease of use, security, and infrastructure factors are notably low. The most significant difference from the fourth group is the low value of the security factor.

The fourth group was designated as "Comprehensive." This group generally has high values, being very aware and engaged. However, their infrastructure and ease of use values are lower compared to other factors.
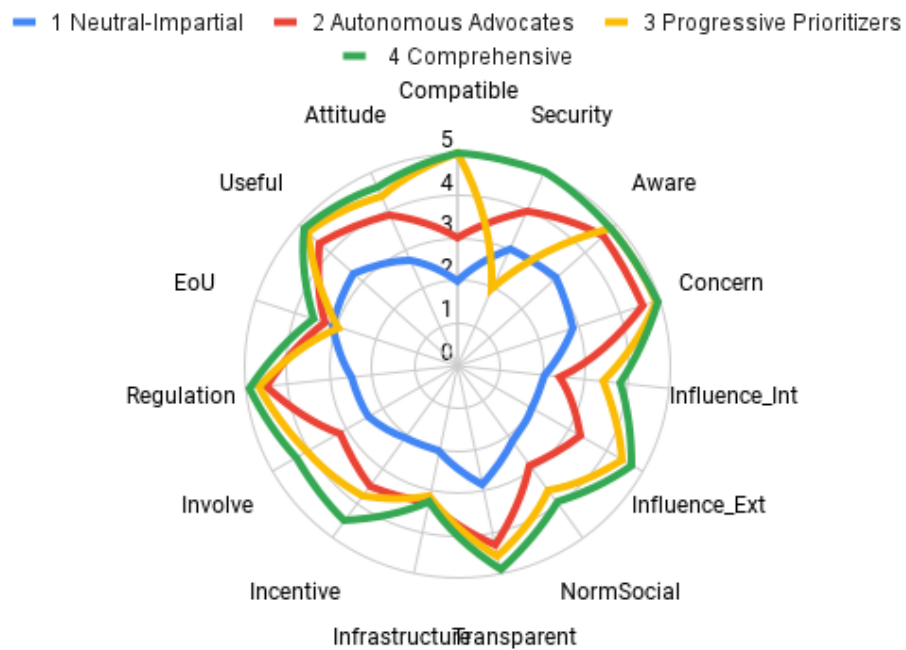
Figure 10. Cluster Typology 2 for Four Clusters

5.8. ANOVA Analysis

Participants were divided into 3 groups in typology 1 cluster 1 analysis. These are Rule-based, Unattached, Concerned. Table 36 shows ANOVA result for typology 1 cluster 1. The Concerned group is the group with the highest factors in general. Unattached is the group with the lowest factors.

Table 36. ANOVA Result for Typology 1 Cluster 1

Variable	F	Sig.	Rule-based	Unattached	Concerned
Aware	61.498	0.000	4.48	2.50	**4.87**
Concern	91.875	0.000	4.45	2.17	**4.96**
Influence_Int	64.939	0.000	2.50	1.50	**3.71**
Influence_Ext	186.936	0.000	3.35	1.22	**4.66**
NormSocial	72.9	0.000	2.90	1.42	**3.91**
Transparent	80.1	0.000	4.27	2.08	**4.82**
Infrastructure	6.056	0.003	3.17	1.44	**3.24**
Incentive	64.644	0.000	3.40	1.39	**4.36**
Involve	75.224	0.000	3.14	2.17	**4.33**
Regulation	65.469	0.000	4.45	2.00	**4.83**
EoU	1.444	0.238	3.30	2.76	**3.32**
Useful	51.734	0.000	4.36	3.03	**4.79**
Attitude	34.585	0.000	3.92	2.88	**4.52**

Participants were divided into 4 groups in typology 1 cluster 2 analysis. These are Irrelevant, Risk-taker, Undifferentiated, Security-minded. Table 37 shows ANOVA result for typology 1 cluster 2. The awareness of the risk-taker group is high and gives more importance to infrastructure. Security-minded group is the group with the highest factors in general. Unattached is the group with the lowest factors.

Table 37. ANOVA Result for Typology 1 Cluster 2

Variable	F	Sig.	Irrelevant	Risk-taker	Undifferentiated	Security-minded
Aware	39.117	0	2.33	**4.85**	4.45	4.85
Concern	75.663	0	1.60	4.87	4.43	**4.95**
Influence_Int	46.707	0	1.40	3.37	2.40	**3.80**
Influence_Ext	117.138	0	1.00	4.36	3.27	**4.69**
NormSocial	43.759	0	1.10	3.63	2.88	**3.93**
Transparent	47.036	0	2.10	4.53	4.26	**4.89**
Infrastructure	4.098	0.007	1.27	**3.25**	3.15	3.22
Incentive	41.249	0	1.27	3.79	3.43	**4.49**
Involve	46.923	0	2.00	4.00	3.08	**4.38**
Regulation	32.963	0	2.20	4.63	4.41	**4.89**
EoU	6.83	0	2.77	2.99	3.32	**3.48**
Useful	31.338	0	3.03	4.64	4.33	**4.83**
Attitude	23.011	0	2.85	4.32	3.88	**4.57**

Participants were divided into 3 groups in typology 2 cluster 1 analysis. These are Non-other-oriented, Non-focused-security, All-relevant. Table 86 shows ANOVA result for typology 2 cluster 1. The awareness and concern of the non-focused-security group is high and it gives importance to infrastructures. All-relevant group was more sensitive than the other groups in most factors.

Table 38. ANOVA Result for Typology 2 Cluster 1

Variable	F	Sig.	Non-other-oriented	Non-focused-security	All-relevant
Aware	24.751	0	4.30	**4.92**	4.81
Concern	31.327	0	4.27	**4.93**	4.90
Influence_Int	53.67	0	2.34	3.44	**3.68**
Influence_Ext	113.629	0	3.11	4.42	**4.60**
NormSocial	60.094	0	2.69	3.69	**3.90**
Transparent	43.932	0	4.06	4.57	**4.89**
Infrastructure	0.632	0.532	3.07	**3.30**	3.18
Incentive	50.567	0	3.19	3.91	**4.45**
Involve	62.61	0	2.97	4.09	**4.29**
Regulation	27.369	0	4.21	4.66	**4.90**
EoU	7.971	0	3.27	3.01	**3.47**
Useful	56.121	0	4.13	4.71	**4.85**
Attitude	54.407	0	3.65	4.40	**4.60**

Participants were divided into 4 groups in typology 2 cluster 2 analysis. These are Neutral-Impartial, Autonomous Advocates, Progressive Prioritizers, Comprehensive. Table 39 shows ANOVA result for typology 2 cluster 2. The Comprehensive group was more sensitive than the other groups in most factors, while the Neutral-Impartial group had the lowest sensitivity.

Table 39. ANOVA Result for Typology 2 Cluster 2

Construct	F	Sig	Neutral-Impartial	Autonomous Advocates	Progressive Prioritizers	Comprehensive
Aware	36.233	0.000	3.08	4.57	**4.86**	4.82
Concern	52.205	0.000	2.83	4.56	4.87	**4.92**
Influence_Int	46.303	0.000	2.04	2.43	3.42	**3.81**
Influence_Ext	122.638	0.000	2.00	3.32	4.46	**4.71**
NormSocial	40.62	0.000	2.19	2.88	3.64	**3.96**
Transparent	54.226	0.000	2.83	4.29	4.58	**4.91**
Infrastructure	3.743	0.012	2.03	3.24	3.11	**3.26**
Incentive	41.572	0.000	2.08	3.49	3.81	**4.50**
Involve	44.432	0.000	2.42	3.16	4.07	**4.37**
Regulation	60.42	0.000	2.50	4.51	4.69	**4.90**
EoU	8.95	0.000	3.08	3.28	2.92	**3.52**
Useful	52.452	0.000	3.26	4.33	4.72	**4.86**
Attitude	45.184	0.000	2.73	3.88	4.39	**4.63**

CHAPTER 6

CONCLUSION

The climate crisis is undeniable today, and the transportation sector plays a major role in carbon emissions. Individual changes in daily routines can have a significant impact when combined. By embracing sustainable behaviors and modes of transportation like public transit, cycling, and walking, we can take substantial steps towards averting the climate crisis. This study focuses on assessing the adoption of public transportation and micro mobility in daily and business life, considering their potential for promoting environmental sustainability.

One notable finding from the interviews is that individuals express a desire to take individual action to mitigate the climate crisis, but they emphasize the need for legal regulations to ensure effective control.

The interviews revealed that people tend to adopt childhood-learned activities such as water conservation, turning off lights, and reducing consumption as lifelong habits. This highlights the significance of the childhood period in shaping adaptive behavior.

People prioritize activities that are cost-effective and within their control, while neglecting more expensive actions and those dependent on infrastructure. This highlights the need for institutions responsible for infrastructure to provide the necessary support, enabling individuals to make environmentally conscious choices within their financial means.

There are several factors that influence our pro-environmental decisions. Our qualitative study shows that attitude, social norm, involvement, useful, external influence, regulation, concern, and transparent factors affect us in this regard.

Overall, individuals show high levels of awareness and concern, as indicated by the high averages of "Aware" and "Concern." However, the average for "Use" is moderate, suggesting that individuals' awareness and concerns have not yet translated

into action. On the other hand, "Safety" has the lowest average, indicating that individuals do not have significant reservations about using bicycles in traffic.

Upon careful examination of the gathered data, a noteworthy departure from the prevailing literature becomes evident. Specifically, the expected association between ease of use, usefulness, and attitude fails to materialize. However, a notable correlation emerges between the variables of usefulness and attitude. Furthermore, in contrast to existing scholarly findings, both attitude and social norms exert a direct and influential impact on individuals' actual usage behavior. Consequently, these results highlight the influential role of the social environment, emphasizing that individuals' actions are significantly shaped by the presence and influence of others.

Attitude is directly affected by involvement and usefulness. The Involve variable is a variable that we have not encountered in the literature before, and that we encountered during the interview process, and it directly and positively affects the attitude. Individuals have a more positive attitude when they are involved in the processes. We think that their attitudes have increased positively because they embrace the processes in which they are involved and work.

The results indicate that as individuals' level of concern increases, their perception of usefulness also increases. Furthermore, the presence of transparency and effective regulations enhances the perception of usefulness. Additionally, individuals' inclination to adopt the views of experts in the field contributes to an increase in the perception of usefulness.

The fact that external influence is the direct determinant of usefulness and the social norm is the direct determinant of use, actually shows us that individuals in society are highly influenced by "others", "the rest of society", whether familiar or not. The importance of the necessity of regulations was also emphasized by the data obtained from the interview and the second survey. When these findings are integrated, it becomes evident that individuals are motivated to modify their behaviors, but collective societal action is sought by them to drive change. Moreover, their demand for transparency reflects their desire to witness the tangible outcomes of their actions. Therefore, let us embrace a shared sense of responsibility, transforming it into a societal movement where responsibilities are evenly distributed.

6.1. Implications

This study provides insights into the factors that influence individuals' choices regarding transportation and micro mobility for environmental sustainability. The findings contribute to our understanding of the key factors that shape individuals' attitudes and behaviors towards sustainable transportation options. The results can inform policymakers, urban planners, and transportation authorities in developing strategies and interventions to promote environmentally sustainable transportation practices.

When the analysis is examined, it is observed that awareness and concern are high, but there is a lack of action. Therefore, it is beneficial to look at other factors that can motivate individuals to take action. It is seen that individual participation in processes and having a say in decision-making is an important factor in adaptation. In this context, it is important for institutions like municipalities, when they want to take action regarding the climate crisis, to ensure the participation of the public in decision and implementation committees/teams. It is not only important for these committees to be open to the public but also to give them a voice and influence in decision-making processes. Transparent management of processes is also crucial, as it allows individuals to see the benefits of their actions in the adaptation process. Authorized institutions should be transparent about their actions and plans, taking this into consideration when establishing the system.

When the effects of social norms and external influence constructs are looked at, it is seen that individuals are influenced by others. As a result, authorized institutions can increase adaptation by training individuals from specific regions as "sustainability agents" and empowering them to become effective factors in this regard. Advertising and awareness campaigns can be organized that highlight how "others," "neighbors," and "colleagues" are taking action in this area, prompting individuals with the question "What about you?" Similarly, making experts in the field visible to the public and utilizing not only traditional media but also social media would be beneficial.

In addition to all of these, individuals want to know that there are regulations in place and that everyone is acting accordingly. It is important not to overlook these regulations during the process.

In this process, it is also important not to overlook the habits formed during childhood and the catalytic role of children within the family. To educate society, it is necessary to start with the education of children. This way, you are not only educating the future adult individuals but also educating the entire family through those children. These processes can be achieved through school education as well as through activities such as theater organized by municipalities and institutions, where cultural and entertaining approaches can be adopted.

6.2. Limitations

The study has several limitations that should be taken into consideration. Firstly, the sample size could have been larger, and it would have been beneficial to have a higher proportion of male participants to ensure a more representative sample. Additionally, it is important to acknowledge that the study was limited to a specific context, namely Turkey, which may restrict the generalizability of the findings to other populations or regions.

Another limitation is that the survey coincided with a turbulent election period in Turkey. This could have influenced the responses and perceptions of the participants, as political dynamics and uncertainties may have influenced their attitudes and behaviors.

Furthermore, conducting the survey during an economically unstable period may have impacted the participants' responses. Economic instability can affect individuals' priorities, preferences, and decision-making, potentially influencing their perspectives on the topic under investigation.

Despite these limitations, the study provides valuable insights within the given context. However, it is important to recognize these limitations when interpreting the findings and consider them as potential factors that may have influenced the results. Future research could address these limitations by expanding the sample size, ensuring a more diverse representation, and conducting the study in more stable socio-political and economic contexts.

6.3. Further Works

This study can be implemented in different regions and cultures. In this implementation, different results can be obtained due to both cultural and socio-economic differences.

From the literature review, 121 different constructs were derived, and from the interviews, 15 different constructs were derived. However, only some of them were used. Therefore, extracted constructs or new constructs from the literature can be added to the proposed taxonomy, and a validity test can be conducted.

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APPENDIX A

LITERATURE REVIEW

A.1. Constructs and Related Publications

Table 40. Constructs and Related Publications

Variables	References
Ability	Harland, Staats, and Wilke 2007, Vulturius et al. 2018
Acceptability	Steg, Dreijerink, and Abrahamse 2005
Activism	Stern et al. 1999
Actual displayed environmental behavior	Arkesteijn and Oerlemans 2005
Actual Use	Akman and Mishra 2014
Adoption	Adnan et al. 2019, Al-Rejal et al. 2020
Advantage	Rogers 1983, Kapoor and Dwivedi 2020, Faiers, Neame, and Cook 2007, Arkesteijn and Oerlemans 2005, Tapaninen, Seppänen, and Makinen 2009, Völlink, Meertens, and Midden 2002, Kabel, Elg, and Sundin 2021
Advertisement	Wan and Ha 2021, Nath et al. 2013
Aesthetic Consumption	Jung, Choi, and Oh 2020
Altruism	Panda et al. 2020
Attitude	Asadi et al. 2015, Nath et al. 2013, Asadi, Hussin, and Saedi 2016, Adnan et al. 2019, Arkesteijn and Oerlemans 2005, Dahlinger and Wortmann 2016, Al Mamun et al. 2020, Dalvi-Esfahani and Rahman 2016, Zainudin et al. 2019, Scott, Oates, and Young 2015, Shevchuk and Oinas-Kukkonen 2019, Adnan, Nordin, and Rasli 2019, Wan and Ha 2021, Eccarius and Lu 2020, Jung, Choi, and Oh 2020, Bamberg and Möser 2007, Harland, Staats, and Wilke 2007, Ajzen 1991, Zhang et al. 2019, Tanwir and Hamzah 2020, Huang and Ge 2019, Paul, Modi, and Patel 2016, Hines, Hungerford, and Tomera 1987, Jaiswal and Kant 2018, Xu, Wang, and Yu 2020, Claudy, Peterson, and O'Driscoll 2013, Ajzen 2006, Rhodes and Courneya 2003, Loo, Yeow, and Eze 2014, Lynne and Rola 1988, Chan 1996, Haron, Paim, and Yahaya 2005, Mohiuddin et al. 2018, Taufique et al. 2016.

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Table 40 Table 40 **(cont.)**

Variables	References
Attitude (cont.).	Chin et al. 2019, Chou, Chen, and Wang 2012, Kabel, Elg, and Sundin 2021, Chen, Chen, and Tung 2018, Bamberg, Hunecke, and Blöbaum 2007, Hansla et al. 2008, Klöckner 2013, Thøgersen and Ölander 2003, Zsóka et al. 2013
Authority	Jansson and Dorrepaal 2015.
Awareness	Chen, Chen, and Tung 2018, Jansson and Dorrepaal 2015, Asadi et al. 2015, Asadi, Hussin, and Saedi 2016, Adnan, Nordin, and Rasli 2019, Dalvi-Esfahani and Rahman 2016, Zainudin et al. 2019, Eccarius and Lu 2020, Stern et al. 1999, Steg and de Groot 2010, Bamberg and Möser 2007, Bamberg, Hunecke, and Blöbaum 2007, Nordlund and Garvill 2003, Steg, Dreijerink, and Abrahamse 2005, Thøgersen 1999, Harland, Staats, and Wilke 2007, Thøgersen 2003, Grob 1995, Xu, Wang, and Yu 2020, Loo, Yeow, and Eze 2014, Hansla et al. 2008, Zsóka et al. 2013, Mohiuddin et al. 2018, Wan and Ha 2021, Darko et al. 2018, Klöckner 2013, Nath et al. 2013, Panda et al. 2020.
Barriers	Darko et al. 2018,
Behaviour	Al Mamun et al. 2020, Zhu et al. 2013, Suganthi 2019, Stern et al. 1999, Bamberg and Möser 2007, Thøgersen and Ölander 2003, Ajzen 1991, Steg and de Groot 2010, Zsóka et al. 2013, Rhodes and Courneya 2003, Klöckner 2013, Grob 1995, Haron, Paim, and Yahaya 2005, Taufique et al. 2016, Arkesteijn and Oerlemans 2005, Thøgersen 2006, Eccarius and Lu 2020.
Behavior Control	Harland, Staats, and Wilke 2007, Klöckner 2013, Simsekoglu and Nayum 2019, Paul, Modi, and Patel 2016, Bamberg and Möser 2007, Bamberg, Hunecke, and Blöbaum 2007, Xu, Wang, and Yu 2020, Ajzen 2006, Rhodes and Courneya 2003, Loo, Yeow, and Eze 2014, Mohiuddin et al. 2018, Dahlinger and Wortmann 2016, Asadi et al. 2015, Adnan, Nordin, and Rasli 2019, Chou, Chen, and Wang 2012, Kabel, Elg, and Sundin 2021, Akman and Mishra 2014, Zainudin et al. 2019, Zhang et al. 2019, Tanwir and Hamzah 2020, Huang and Ge 2019, Eccarius and Lu 2020, Al Mamun et al. 2020, Thøgersen 2003, Ajzen 1991.
Belief	Akman and Mishra 2014, Ajzen 2006, Scott, Oates, and Young 2015.
Benefit	Ozaki 2011, Claudy, Peterson, and O'Driscoll 2013, Al Mamun et al. 2020.

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Table 40 (cont.)

Variables	References
Brand	Chin et al. 2019, Panda et al. 2020.
Care	Jansson and Dorrepaal 2015.
Citizenship	Stern et al. 1999.
Collectivism	Chen, Chen, and Tung 2018.
Commitment	Hines, Hungerford, and Tomera 1987.
Communication	Arkesteijn and Oerlemans 2005, Adnan, Nordin, and Rasli 2019.
Community	Patak, Branska, and Pecinova 2021, Wang et al. 2019.
Compatibility	Rogers 1983, Rogers 2003, Tapaninen, Seppänen, and Makinen 2009, Ozaki 2011, Claudy, Peterson, and O'Driscoll 2013, Kapoor and Dwivedi 2020, Adnan et al. 2019, Adnan, Nordin, and Rasli 2019, Eccarius and Lu 2020, Faiers, Neame, and Cook 2007, Völlink, Meertens, and Midden 2002, Müller and Rode 2013.
Competitive Advantage	Wang et al. 2019.
Behavior Control	Harland, Staats, and Wilke 2007, Klöckner 2013, Simsekoglu and Nayum 2019, Paul, Modi, and Patel 2016, Bamberg and Möser 2007, Bamberg, Hunecke, and Blöbaum 2007, Xu, Wang, and Yu 2020, Ajzen 2006, Rhodes and Courneya 2003, Loo, Yeow, and Eze 2014, Mohiuddin et al. 2018, Dahlinger and Wortmann 2016, Asadi et al. 2015, Adnan, Nordin, and Rasli 2019, Chou, Chen, and Wang 2012, Kabel, Elg, and Sundin 2021, Akman and Mishra 2014, Zainudin et al. 2019, Zhang et al. 2019, Tanwir and Hamzah 2020, Huang and Ge 2019, Eccarius and Lu 2020, Al Mamun et al. 2020, Thøgersen 2003, Ajzen 1991.
Belief	Akman and Mishra 2014, Ajzen 2006, Scott, Oates, and Young 2015.
Benefit	Ozaki 2011, Claudy, Peterson, and O'Driscoll 2013, Al Mamun et al. 2020.
Brand	Chin et al. 2019, Panda et al. 2020.
Care	Jansson and Dorrepaal 2015.
Citizenship	Stern et al. 1999.
Collectivism	Chen, Chen, and Tung 2018.
Commitment	Hines, Hungerford, and Tomera 1987.
Communication	Arkesteijn and Oerlemans 2005, Adnan, Nordin, and Rasli 2019.
Community	Patak, Branska, and Pecinova 2021, Wang et al. 2019.
Compatibility	Rogers 1983, Rogers 2003, Tapaninen, Seppänen, and Makinen 2009, Ozaki 2011, Claudy, Peterson, and O'Driscoll 2013, Kapoor and Dwivedi 2020, Adnan et al. 2019, Adnan, Nordin, and Rasli 2019, Eccarius and Lu 2020, Faiers, Neame, and Cook 2007, Völlink, Meertens, and Midden 2002, Müller and Rode 2013.

Table 40. (cont.)

Variables	References
Competitive Advantage	Wang et al. 2019.
Complexity	Rogers 1983, Rogers 2003, Tapaninen, Seppänen, and Makinen 2009, Kapoor and Dwivedi 2020, Adnan, Nordin, and Rasli 2019, Faiers, Neame, and Cook 2007, Völlink, Meertens, and Midden 2002.
Concern	Paul, Modi, and Patel 2016, Dunlap and Jones 2002, Fransson and Gärling 1999, Roberts 1996, Jaiswal and Kant 2018, Patak, Branska, and Pecinova 2021, Hansla et al. 2008, D'Amico, Di Vita, and Monaco 2016, Vulturius et al. 2018, Lin and Huang 2012, Kabel, Elg, and Sundin 2021, Zhang et al. 2019, Adnan, Nordin, and Rasli 2019.
Consumption	Jung, Choi, and Oh 2020.
Condition	Li and Hu 2018.
Consumer	Roman et al. 2015, Claudy, Peterson, and O'Driscoll 2013.
Context factors	Zhu et al. 2013.
Control	Grob 1995, Hines, Hungerford, and Tomera 1987.
Controllability	Ozaki 2011.
Convenience	Zhu et al. 2013.
Cost	Thøgersen 1999, Claudy, Peterson, and O'Driscoll 2013, Arkesteijn and Oerlemans 2005, Asadi, Hussin, and Saedi 2016, Chen, Chen, and Tung 2018.
Credibility Support	Shevchuk and Oinas-Kukkonen 2019.
Dialogue Support	Shevchuk and Oinas-Kukkonen 2019.
Ease of Use	Bekaroo et al. 2018, Wang et al. 2019, Arkesteijn and Oerlemans 2005, Dahlinger and Wortmann 2016, Zhu et al. 2013, Davis 1989, Venkatesh 1999, Venkatesh and Davis 2000.
Eco-labeling	Nath et al. 2013.
Eco-Literacy	Al Mamun et al. 2020.
Effectiveness	Thøgersen 1999, Nath et al. 2013, Roberts 1996; Jaiswal and Kant 2018, Wan and Ha 2021.
Efficacy	Harland, Staats, and Wilke 2007..
Emotion	Al-Rejal et al. 2020, Grob 1995.
Enforcement	Nath et al. 2013.
Enjoyment	Dahlinger and Wortmann 2016, Bekaroo et al. 2018, Heijden 2004.
Equity	Kabel, Elg, and Sundin 2021.
Ethic	Asadi, Hussin, and Saedi 2016, Zou and Chan 2019.
Evangelism	Panda et al. 2020.
Exposure	Vulturius et al. 2018, Venkatesh and Davis 2000, Chen, Chen, and Tung 2018.
External influencing factors	Zhu et al. 2013.
External PLOC	Shevchuk and Oinas-Kukkonen 2019.

Table 40 (cont.)

Variables	References
Fairness	Jansson and Dorrepaal 2015.
Government	Wang et al. 2019, Zhu et al. 2013, Wan and Ha 2021, Darko et al. 2018, Chen, Chen, and Tung 2018.
Green practices	Suganthi 2019.
Group effect	Nath et al. 2013.
Group norm	Adnan, Nordin, and Rasli 2019.
Guilt	Bamberg and Möser 2007, Bamberg, Hunecke, and Blöbaum 2007.
Habit	Klöckner 2013, Thøgersen 2003, Loo, Yeow, and Eze 2014.
Income	Roman et al. 2015, Hines, Hungerford, and Tomera 1987, Vulturius et al. 2018, Valenzuela-Levi and Abreu 2021, Arkesteijn and Oerlemans 2005.
Incompatibility	Claudy, Peterson, and O'Driscoll 2013.
Individualism	Chen, Chen, and Tung 2018.
Information and Social Influence	Ozaki 2011.
Innovativeness	Huang and Qian 2021, Wang et al. 2019, Al-Rejal et al. 2020, Małecka et al. 2022, Chou, Chen, and Wang 2012, Kapoor and Dwivedi 2020.
Intention	Steg and de Groot 2010, Klöckner 2013, Harland, Staats, and Wilke 2007, Thøgersen 2003, Ajzen 1991, Huang and Ge 2019, Paul, Modi, and Patel 2016, Panda et al. 2020, Jaiswal and Kant 2018, Xu, Wang, and Yu 2020, Zhu et al. 2013, Ajzen 2006, Loo, Yeow, and Eze 2014, Kapoor and Dwivedi 2020, Eccarius and Lu 2020, Chin et al. 2019, Li and Hu 2018, Asadi, Hussin, and Saedi 2016, Chou, Chen, and Wang 2012, Dahlinger and Wortmann 2016, Venkatesh 1999, Bamberg, Hunecke, and Blöbaum 2007, Małecka et al. 2022, Heijden 2004, Ozaki 2011, Claudy, Peterson, and O'Driscoll 2013, Adnan et al. 2019, Akman and Mishra 2014, Al Mamun et al. 2020, Zainudin et al. 2019, Huang and Qian 2021, Zhang et al. 2019, Shevchuk and Oinas-Kukkonen 2019, Bekaroo et al. 2018, Patak, Branska, and Pecinova 2021, Jung, Choi, and Oh 2020, Bamberg and Möser 2007, Tanwir and Hamzah 2020, (Claudy, Peterson, and O'Driscoll 2013, Rhodes and Courneya 2003, Mohiuddin et al. 2018, Chen, Chen, and Tung 2018, Völlink, Meertens, and Midden 2002
Internal influencing factors	Zhu et al. 2013
Internal PLOC	Shevchuk and Oinas-Kukkonen 2019.
Introjected PLOC	Shevchuk and Oinas-Kukkonen 2019.
Idealism	Zou and Chan 2019.
Ideology	Zou and Chan 2019.

Table 40 (cont.)

Variables	References
Image	Venkatesh and Davis 2000.
Incentive	Gallagher and Muehlegger 2011, Drozdenko, Jensen, and Coelho 2011, Wan and Ha 2021, Darko et al. 2018, Huang and Ge 2019, Al-Rejal et al. 2020, Nath et al. 2013.
Knowledge	Tanwir and Hamzah 2020, Huang and Ge 2019, Simsekoglu and Nayum 2019, Hines, Hungerford, and Tomera 1987, Jaiswal and Kant 2018, Patak, Branska, and Pecinova 2021, Haron, Paim, and Yahaya 2005, Zsóka et al. 2013, Mohiuddin et al. 2018, Arkesteijn and Oerlemans 2005, Taufique et al. 2016, Chin et al. 2019, D'Amico, Di Vita, and Monaco 2016, Li and Hu 2018, Vulturius et al. 2018, Wan and Ha 2021, Kabel, Elg, and Sundin 2021, Chen, Chen, and Tung 2018, Biswas and Roy 2015, Darko et al. 2018.
Label	Nath et al. 2013, Wan and Ha 2021, JJanßen and Langen 2017.
Learning capability	Al-Rejal et al. 2020.
Legal Enforcement	Nath et al. 2013.
Lifestyle	Patak, Branska, and Pecinova 2021.
Loyalty	Jansson and Dorrepaal 2015.
Mass media	Adnan, Nordin, and Rasli 2019.
Mimetic Pressures	Chen et al. 2010.
Need	Zhu et al. 2013, Huang and Qian 2021.
NEP New Ecological Paradigm	Jansson and Dorrepaal 2015, Steg, Dreijerink, and Abrahamse 2005, Loo, Yeow, and Eze 2014, Wiidegren 1998, Stern et al. 1999, Klöckner 2013, Thøgersen 2003.
Norms	Stern et al. 1999, Jansson and Dorrepaal 2015, Steg and de Groot 2010, Bamberg and Möser 2007, Harland, Staats, and Wilke 2007, Thøgersen and Ölander 2003, Klöckner 2013, Thøgersen 2006, Bamberg, Hunecke, and Blöbaum 2007, Nordlund and Garvill 2003, Steg, Dreijerink, and Abrahamse 2005, Thøgersen 1999, Thøgersen 2003, Ajzen 1991, Zainudin et al. 2019, Zhang et al. 2019, Tanwir and Hamzah 2020, Huang and Ge 2019, Simsekoglu and Nayum 2019, Paul, Modi, and Patel 2016, Nath et al. 2013, Xu, Wang, and Yu 2020, Ajzen 2006, Rhodes and Courneya 2003, Loo, Yeow, and Eze 2014, Wiidegren 1998, Eccarius and Lu 2020, Mohiuddin et al. 2018, Asadi, Hussin, and Saedi 2016, Chou, Chen, and Wang 2012, Wan and Ha 2021, Kabel, Elg, and Sundin 2021, Zou and Chan 2019, Chen, Chen, and Tung 2018

Table 40 (cont.).

Variables	References
Norms (cont.).	Venkatesh and Davis 2000, Dahlinger and Wortmann 2016, Rivis, Sheeran, and Armitage 2009, Thøgersen 2006, Schwartz 1977, Ozaki 2011, Asadi et al. 2015, Asadi, Hussin, and Saedi 2016, Dalvi-Esfahani and Rahman 2016, Scott, Oates, and Young 2015, Jung, Choi, and Oh 2020, Adnan et al. 2019, Akman and Mishra 2014, Al Mamun et al. 2020, Zainudin et al. 2019, Zhang et al. 2019, Adnan, Nordin, and Rasli 2019, Małecka et al. 2022, Groot, Abrahamse, and Jones 2013, Garcia-Valiñas, Macintyre, and Torgler 2012, Fornara et al. 2011, Andersson and Borgstede 2010, Allcott 2011.
Obligation	Thøgersen 2006.
Observability	Rogers 1983, Rogers 2003, Tapaninen, Seppänen, and Makinen 2009, Faiers, Neame, and Cook 2007, Kapoor and Dwivedi 2020, Adnan, Nordin, and Rasli 2019.
Opportunity	Thøgersen 2003.
Organizational performance	Suganthi 2019.
Economic orientation	Hines, Hungerford, and Tomera 1987.
Outcome-Based Pressure	Chen et al. 2010.
Participation	Haron, Paim, and Yahaya 2005.
Peer group	Nath et al. 2013.
Policy	Stern et al. 1999.
Pressure	Chen et al. 2010
Perception of price	Arkesteijn and Oerlemans 2005
Primary Task Support	Shevchuk and Oinas-Kukkonen 2019.
Perception of probability	Arkesteijn and Oerlemans 2005.
Promotion	Patak, Branska, and Pecinova 2021, Zhu et al. 2013.
Psychosocial	Huang and Qian 2021.
Quality	Kabel, Elg, and Sundin 2021, Venkatesh and Davis 2000.
Relative advantage	Rogers 2003, Kapoor and Dwivedi 2020, Arkesteijn and Oerlemans 2005, Adnan, Nordin, and Rasli 2019.
Relativism	Zou and Chan 2019.
Relevance	Venkatesh and Davis 2000.
Responsibility	Steg and de Groot 2010, Klöckner 2013, Steg, Dreijerink, and Abrahamse 2005, Harland, Staats, and Wilke 2007, Hines, Hungerford, and Tomera 1987, Loo, Yeow, and Eze 2014, Asadi, Hussin, and Saedi 2016, Asadi et al. 2015, Asadi, Hussin, and Saedi Dalvi-Esfahani and Rahman 2016.
Regulation	Adnan, Nordin, and Rasli 2019.

(cont. on next page)

Table 40 (cont.)

Variables	References
Risk	Simsekoglu and Nayum 2019, Claudy, Peterson, and O'Driscoll 2013, Arkesteijn and Oerlemans 2005, Li and Hu 2018, Vulturius et al. 2018, Kabel, Elg, and Sundin 2021, Huang and Qian 2021, Darko et al. 2018, Ozaki 2011.
Sanctity	Jansson and Dorrepaal 2015.
Self-efficacy	Thøgersen 2003, Ozaki 2011, Asadi, Hussin, and Saedi 2016, Bandura 1982, Bandura 1978, Asadi, Hussin, and Saedi 2016.
Size forest property	.Vulturius et al. 2018.
Sociability	Małecka et al. 2022.
Stakeholder	Darko et al. 2018, Wang et al. 2019.
Startup Resources	Al Mamun et al. 2020.
Status	Huang and Ge 2019, Li and Hu 2018.
Social Support	Shevchuk and Oinas-Kukkonen 2019.
Tax credits	Nath et al. 2013.
Trialability	Rogers 1983, Rogers 2003, Tapaninen, Seppänen, and Makinen 2009, Adnan et al. 2019, Adnan, Nordin, and Rasli 2019, Faiers, Neame, and Cook 2007, Völlink, Meertens, and Midden 2002.
Trust	Arkesteijn and Oerlemans 2005, Venkatesh and Davis 2000, Małecka et al. 2022, Vulturius et al. 2018.
Uncertainty	Ozaki 2011.
Use	Bamberg, Hunecke, and Blöbaum 2007, Venkatesh 1999.
Usefulness	Adnan et al. 2019, Dahlinger and Wortmann 2016, Bekaroo et al. 2018, Davis 1989; Venkatesh and Davis 2000, Heijden 2004, Venkatesh 1999,Wang et al. 2019, Małecka et al. 2022.
Value	Ozaki 2011, Nath et al. 2013, Claudy, Peterson, and O'Driscoll 2013, Dalvi-Esfahani and Rahman 2016, Biswas and Roy 2015, Zhu et al. 2013, Eccarius and Lu 2020, Jung, Choi, and Oh 2020, Klöckner 2013, Stern et al. 1999, Nordlund and Garvill 2003, Steg, Dreijerink, and Abrahamse 2005, Thøgersen 2003, Loo, Yeow, and Eze 2014, Hansla et al. 2008, Wan and Ha 2021, Lin and Huang 2012, Chen, Chen, and Tung 2018, Thøgersen and Ölander 2003, Grob 1995, Zsóka et al. 2013.
Willingness	Nordlund and Garvill 2003, Xu, Wang, and Yu 2020, Venkatesh and Davis 2000, Arkesteijn and Oerlemans 2005.

APPENDIX B

INTERVIEW STUDY

B.1. Semi-Structured Interview Questions

Table 41. Interview Questions in Turkish

SN	Mülakat Soruları
D	Yaş
D	Cinsiyet
D	Eğitim durumu
D	Meslek
SN	Mülakat Soruları
D	İş durumu
D	Gelir durumu
D	Görüşme tarihi
D	Görüşme ortamı
1.A.	"Çevre/İklim değişikliği" konusunda ne düşünüyorsunuz
1.B	iklim değişikliği sizin için önemli mi? neden önemli?
2	İklim değişikliğinin hangi somut yönü sizi en fazla olumsuz olarak etkileyebilir
3	Green lifestyle kavramını daha önce duymuş muydunuz? ne düşünüyorsunuz?
4.A	İklim değişikliğinin engellenebilir olduğunu düşünüyor musunuz?
4.B	(siz ve arkadaşlarınız) Günlük hayatınızda yapacağınız birkaç ufak değişiklik ile iklim değişikliğini önleme konusunda katkıda bulunabileceğinizi düşünüyor musunuz?
5	İklim değişikliğini önleme konusunda bireysel olarak yaptığınız eylemler var mı?
I	DEMO - Infographic
6	Bu konu hakkında birşey yapabilmek adına yaşam standardınızda değişiklik yapmayı göze alır mısınız?
7	LİSTE gösterilir
	Hangi konuda katkıda bulunmak istersiniz (içinde katkıda bulunanlar var ise işaretleyiniz)
8	İklim değişikliği konusunda sizi bir tedbir alma/destek olma konusunda teşvik eden ve engelleyen faktörler nelerdir?

Table 42. Interview Questions in English

QN	Semi-structure Questions
D	Age
D	Gender
D	Education
D	Occupation
D	Working condition
D	Income
D	Interview date
D	Interview environment
1.A.	What do you think about "Environment/Climate change"?
1.B	Is climate change important to you? Why is it important?
2	Which tangible aspect of climate change might affect you most negatively?
3	Have you heard of the concept of green lifestyle before? What do you think?
4.A	Do you think climate change is preventable?
4.B	(you and your friends) Do you think you can contribute to the prevention of climate change by making a few small changes in your daily life?
5	Are there any actions you take individually to prevent climate change?
I	DEMO - Infographic
6	Are you willing to make changes in your standard of living in order to do something about it?
7	LIST is displayed. On what topic would you like to contribute (mark if there are contributors)?
8	What are the factors that encourage you to take measures/support about climate change and what are the factors that prevent you?

B.2. DEMO – Infographic

Küresel İklim Değişikliği

Fosil yakıtların yakılması, arazi kullanımı değişiklikleri, ormansızlaştırma ve sanayi süreçleri gibi insan etkinlikleriyle atmosfere salınan sera gazı birikimlerindeki hızlı artışın doğal sera etkisini kuvvetlendirmesi sonucunda Yerkürenin ortalama yüzey sıcaklıklarındaki artışı ve iklimde oluşan değişiklikleri ifade etmektedir.

İklim Değişikliğinin Etkileri

İklim değişikliğinin etkisi sıcaklıklardaki artıştan ibaret değil. Kuraklık, seller, şiddetli kasırgalar gibi aşırı hava olaylarının sıklığı ve etkisinde artış, okyanus ve deniz suyu seviyelerinde yükselme, okyanusların asit oranlarında artış, buzulların erimesi gibi etkenler sonucunda bitkiler, hayvanlar ve ekosistemlerin yanı sıra insan toplulukları da ciddi risk altındadır.

https://www.wartsila.com/insights/article/the-rising-costs-of-climate-change

Weather Damage Grew More Costly in Past Decade

Global economic losses associated with
weather-related disasters* (in 2020 U.S. dollars)

2001-2010:
$1.678t

2011-2020:
$2.483t

$500b	
$400b	
$300b	
$200b	
$100b	
0	

2001   2005   2010   2015   2020

*Includes atmospheric weather events like storms, floods, droughts and wildfires.
Excludes earthquakes and tsunamis.

Source: AON Weather, Climate & Catastrophe Insight: 2020 Annual Report

statista ⬤

The Number of Endangered Species is Rising

Number of animal species of the IUCN Red List, by class

■ Mammals ■ Reptiles ■ Birds ■ Insects
■ Amphibians ■ Molluscs (e.g. snails) ■ Fish ■ Others*

16,000	
12,000	
8,000	
4,000	
0	

7,851   9,618   11,212   12,630   14,234   15,403

2007   2010   2013   2016   2019   2020
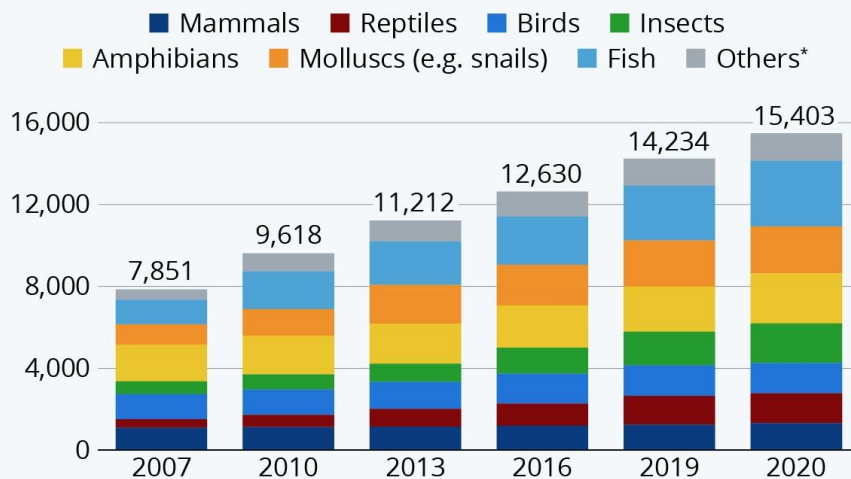
* other invertebrate (spineless) animals, such as crustaceans,
corals and arachnids (spiders, scorpions)

Source: IUCN Red List

statista ⬤

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Turkey, Greece and Italy Battle Historic Fires

Total area burned by fires larger than 30 ha in European countries most at risk of wildfires (as of Aug. 10, 2021)*

■ Average from 2008 to 2020   ■ 2021 to date

Country	Average from 2008 to 2020	2021 to date
Turkey	38,780 ha	175,773 ha
Greece	21,207 ha	107,117 ha
Italy	40,781 ha	103,636 ha
Spain	62,377 ha	38,958 ha
Portugal	115,722 ha	15,020 ha
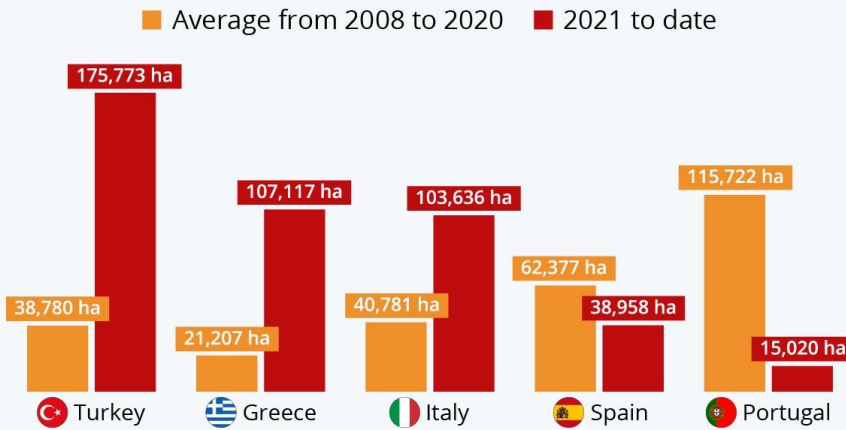
* The area burned by fires larger than 30 ha represents, on average, about 80% of total area burned by wildfires.

Source: European Forest Fire Information System

statista ✦

Each Decade Hotter Than the Last

Temperature changes each decade relative to the 20th century average (in degrees Celsius)

+0.82°C

Decade	
1951-1960	
1961-1970	
1971-1980	
1981-1990	
1991-2000	
2001-2010	
2011-2020	
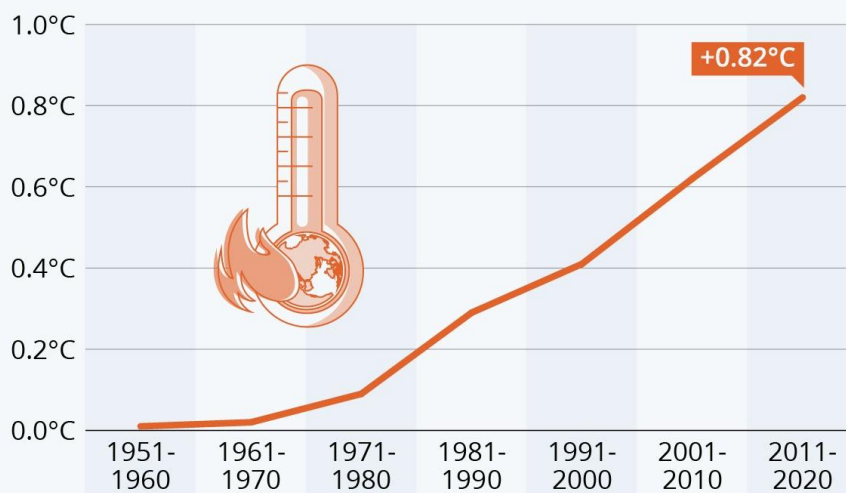
Source: NOAA

statista ✦

Küresel İklim Değişikliği ve Türkiye

Akdeniz Havzası'nda gerçekleşecek 2°C'lik bir sıcaklık artışı, beklenmeyen hava olayları, sıcak hava dalgaları, orman yangınlarının sayısında ve etkisinde artış, kuraklık ve bunlar dolayısıyla biyolojik çeşitlilik kaybı, turizm gelirlerinde azalma, tarımsal verim kaybı ve en önemlisi kuraklık olarak etkilerini hissettirmektedir.

*** wwf

Dünya'da Yönetimler Neler Yapıyor?

Bu konuda dünya ülkeleri çeşitli organizasyonlar kurup ciddi finansal yatırımlar yaptılar ve yapmaya devam ediyorlar. Örneğin; birleşmiş milletler iklim değişikliği çerçeve sözleşmesi. bu sözleşmeye 194 ülke taraf olup imza attılar ve fonlar ayırdılar. Ve bu ülkeler arasında ABD, Çin, İngiltere gibi büyük ekonomilerde dahildir.

B.3. Action List

Table 43 Action List in Turkish

N	Actions
1	**Elektrikli araçların (EVs) kullanımı**
1.a	Toplu taşıma araçlarında EV tercih edilmesi
2.b	Bireysel olarak, özel araç tercihi yaparken EVs tercih edilebilir
3.c	Bireysel olarak, özel araçları EVs ile değiştirilebilir.
4.d	EVs olan paylaşımlı araçlar kullanılabilir
2	**Ulaşımda kullanılan araç çeşitleri**
2.a	Toplu taşıma tercih etmek
2.b	Uygun yerlere yürümeyi tercih etmek
2.c	Elektrikli motor tercih etmek
2.d	Bisiklet tercih etmek
2.e	Elektrikli scooter tercih etmek
2.f	Bireysel araçlarda EVs tercih etmek
2.g	EVs paylaşımlı araçlar tercih etmek
2.h	Paylaşımlı araçlar tercih etmek
2.ı	Daha az sıklıkta araç kullanmak
3	**Ulaşım: taşıma faaliyetlerini en aza indirmek**
3.a	İthal yerine yerli ürünler kullanmak. (sebze, meyve, mobilya...)
3.b	Kargo firmalarında; karbon emisyonu yaratmayan araçları kullanan firmaları tercih etmek.
3.c	Şehir içi tarımı olan bölgelerin seçilmesi

Table 43 (cont.)

N	Actions
4	**Elektronik aletler: Evde ya da günlük hayatta kullandığımız mutfak aletleri, telefon gibi cihazları kapsar.**
4.a	Enerji tasarruflu ürünlerin seçilmesi
4.b	Elektronik ürünleri satın alırken enerji tasarrufunun yanında üretim süreçlerinde de çevreye saygılı üretim süreci geliştiren firmaları tercih etmek
4.c	Sahip olunan elektronik ürünü ömrünün sonuna kadar kullanmak.
4.d	IoT(nesnelerin interneti) ile entegre edilerek enerji ve zaman kazanımı sağlamak
4.e	Yenisini almak yerine küçük bakımlar/tamirler ile kullanmaya devam etmek
5	**Ev-şehir-mahalle tercihi: Ev alırken ya da kiralarken evleri daha az küresel ısınmaya neden olacak şekilde seçmek.**
5.a	Evlerin ısı yalıtımlarının yapılmış olması
5.b	Evler inşa edilirken güneşin geliş açılarına göre yapılması
5.c	Leed sertifikası gibi yeşil bina sertifikası olan binaların seçilmesi
5.d	Yeşil mahallelerin talep edilmesi(atık dönüşümü, su israfını önleyecek çalışmaların yapılması, belediyelerden toplu taşıma için EVs talep etme, yenilenebilir enerji kullanımı, toplu ulaşım imkanları-böylece daha az araç kullanımı olacak-)
6	**Balkon-şehir içi tarım**
6.a	Balkonda- şehir içinde tarım yapmayı tercih edilebilir.
6.b	Yağmur suyu hasadı yapılabilinir.
7	**Atık dönüşümü**
7.a	Organik atıklardan kompost yapmak. Oluşan gübre çiçeklere, evde tarım yapılıyorsa sebze meyvelere, park ve bahçelere dökülerek değerlendirilir
7.b	Geri dönüşüm geçirebilecek plastik, cam, kağıt,vb.. çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak.
7.c	Elektronik cihazlar gibi çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak.
7.d	Pilleri pil toplama alanlarına götürmek
8	**Plastik kullanımının azaltılması**
8.a	Plastik poşet yerine bez gibi geri dönüşebilir ve tekrar tekrar kullanılabilen poşetleri tercih etmek.
8.b	Kendi mataranı, bardağını, termosunu, geri dönüşebilir ve tekrar kullanılabilen pipetini yanında taşımak.
8.c	Plastik çatal ve kaşık kullanmamak.
8.d	Ambalajlamada plastik kullanmamak. Geri dönüştürülebilir malzemeler kullanmak
8.e	Atıksız kargo yapan firmaları tercih etmek.
9	**Evlerde su kullanımı**
9.a	Boş yere su açık bırakılmamalı (mesela dişleri fırçalarken, elleri yıkarken su açık bırakılmamalı.)
9.b	Su tasarruflu bulaşık **ve** çamaşır makinaları kullanmak
9.c	Elde yıkama yapmamak
9.d	Gereksiz yere duşta çok vakit geçirmemek
10	**Kirlilik önleme: atıkları oluşmadan engelleme**
10.a	Kağıt havlular yerine tekstil havlular tercih etme

Table 43Table 43**(cont.).**

N	Actions
10.b	Plastik malzeme yerine geri dönüştürülebilen malzeme tercih etmek. Diş fırçası, sandalye gibi..
10.c	Makyaj çıkarmada tek kullanımlık pamuklar yerine yıkanıp kullanılabilen pamuklar/tekstil ürünlerini tercih etmek
11	**Evlerde kullanılan enerji kaynakları: ısınma, elektrikli aletler, ocak… için kullanılan enerji kaynakları**
11.a	Yenilenebilir enerji kaynakları (güneş, rüzgar, biyokütle…) tercih etmek.
11.b	Evlerin uygun (optimum) sıcaklıkta kullanmak
12	**Marka tercihi**
12.a	Paketlemede kullandıkları malzemeler
12.b	Materyal olarak yeşil ham madde kullanımı
12.c	Markanın doğaya-çevreye saygılı üretim yapması
12.d	Üretim ve ulaştırma(tedarik zincirinin her bir parçasında) süreçlerinde karbon emisyonunu azaltmak.
12.e	Bir markanın özel seri ürünü için şişe üstünde bulunan barkodu okutulan her şişe başına bir fidan dikme vaadi veriyor. bu tarz markalar yada ürünler tercih etmek
12.f	Üretim süreçlerinde kirlilik önleme ilkesini benimsemiş
13	**Sürdürülebilir gıda: Doğaya saygılı üretim yapmak tarımdan paketlemeye paketlemeden son kullanıcıya gelene kadar tüm süreçlerde.**
13.a	Et gibi gıdaların yerine daha az sera gazı emisyonu üreten sebze/meyve tüketmek**.**
13.b	Tarımda mevsimine ve iklimine uygun gıda tüketimi
13.c	Tarım 4.0 ile birlikte tarımda karbon emisyonunu ve iklim değişikliğine neden olan diğer gazların oluşumunu engelleyerek – emisyon sözü veren çiftliklerde üretilen ürünleri tercih etme.
13.d	Plastik paketli ürünler yerine açık dökme usulü ya da dönüşebilen materyalden yapılan paketlemeyi tercih etmek.
14	**Kullanılan eşyaların tekrar kullanımı(ikinci el pazarları –alış-satış-)**
14.a	Kullanılamaz durumdaki kıyafetlerin geri dönüşümünün sağlamak
14.b	Kullanılabilir durumdaki kıyafetlerin Dolap(online ikinci el pazarı) gibi uygulamalar aracılığı ile ikinci el kullanımı(satmak ya da almak)
14.c	Kullanılabilir durumdaki tekstil ürünlerinde ikinci el kullanımı(satmak yada almak)
14.d	Kullanılamaz durumdaki tekstil ürünlerin geri dönüşümünün sağlamak
14.e	Kullanılabilir durumdaki mobilyaların ikinci el kullanımı(satmak ya da almak)
14.f	Kullanılamaz durumdaki mobilyaların geri dönüşümünü sağlamak
15	**Sürdürülebilir kimyasallar**
15.a	Deterjanlar, makyaj malzemeleri, kişisel bakım malzemeleri gibi kullanılan kimyasal ürünlerin doğaya zarar vermeyecek içerikte olanlarını tercih etmek
16	**Gidilen cafe ve rest. tercihleri**
16.a	Çevreye/doğaya saygılı/duyarlı mekanları tercih etmek

Table 43 (cont.)

N	Actions
17	**Dijitalleşme**
17.a	Kağıt kullanmak yerine bilgisayar telefon gibi elektronik ve online araçlar tercih etmek
17.b	Hem online hem manuel yapılabilecek işlemleri online olarak yapmak.(mesela banka uygulamasından faturaları ödemek. Bankaya gitmeye gerek yok.)
17.c	Kağıt baskı olan fatura, kredi kartı ekstreleri gibi dijitalden de elde edilebilecek belgeleri dijital olarak talep etmek
17.d	Çok fazla yer kaplayan fotoğraf, video ve film gibi dijital dosyaların çoğunu bulut sistemleri yerine harici diskler gibi alanlarda saklamak

B.4. Transcript of Semi-Structured Interviews

B.4.1. Participant No 1

Age: 50

Gender: Kadın

Education: İlkokul

Occupation: Ev hanımı

Working condition: Çalışmıyor

Income: 5.000 tl

Interview date: 21.12.2021 13:00

Interview environment: Yüz yüze

Interviewer: "Çevre/İklim değişikliği" konusunda ne düşünüyorsunuz?

Participant: Daha önce duyduğum, çokta ilgilenmediğim bir konu. Ama hep kafamda hep soru işaretleri oluyor. İklim değişikliği olduğunda bize ve memleketimize yani yaşadığım alana ne olacak diye düşünüyorum.

Interviewer: İklim değişikliğinin hangi somut yönü sizi en fazla olumsuz olarak etkileyebilir?

Participant: İklim değişikliğinin eğer ozon tabakasının delinmesi engellenirse iklim değişikliği de engellenebilir diye düşünüyorum.

Interviewer: Green lifestyle kavramını daha önce duymuş muydunuz? ne düşünüyorsunuz?

Participant: Hayır duymadım.

Interviewer: İklim değişikliğinin engellenebilir olduğunu düşünüyor musunuz?

Participant: Evet bazı parfümlerin, deodorantların ozon tabakasına zarar verdiğini kullanmamamız gerektiğini düşünüyorum.

Interviewer: (siz ve arkadaşlarınız) Günlük hayatınızda yapacağınız birkaç ufak değişiklik ile iklim değişikliğini önleme konusunda katkıda bulunabileceğinizi düşünüyor musunuz?

Participant: evet

Interviewer: İklim değişikliğini önleme konusunda bireysel olarak yaptığınız eylemler var mı?

Participant: Hayır.

Demo gösterilir.

Interviewer: konu hakkında birşey yapabilmek adına yaşam standardınızda değişiklik yapmayı göze alır mısınız?

Participant: Evet bu konuda bir şeyler yapmamız gerektiğini düşünüyorum. Diğer insanları da yönlendirmeyi isterim bu konuda. Elimden geldiği kadarını yaparım, yapmaya çalışırım.

LİSTE gösterilir.

Interviewer: Hangi konuda katkıda bulunmak istersiniz (içinde katkıda bulunanlar var ise işaretleyiniz) ?

Participant: Katkıda bulundukları -- Uygun yerlere yürümeyi tercih etmek, Daha az sıklıkta araç kullanmak, İthal yerine yerli ürünler kullanmak. (sebze, meyve, mobilya...), Gidilecek yerlere ulaşımı karbon emisyonu yaratmayan taşıtlarla sağlamak, Enerji tasarruflu ürünlerin seçilmesi, Yenisini almak yerine küçük bakımlar/tamirler ile kullanmaya devam etmek, Evlerin ısı yalıtımlarının yapılmış olması, Evler inşa edilirken güneşin geliş açılarına göre yapılması, Elektronik cihazlar gibi çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak, Plastik poşet yerine bez gibi geri dönüşebilir ve tekrar tekrar kullanılabilen poşetleri tercih etmek, Kendi mataranı, bardağını, termosunu, geri dönüşebilir ve tekrar kullanılabilen pipetini yanında taşımak, Boş yere su açık bırakılmamalı (mesela dişleri fırçalarken, elleri yıkarken su açık

bırakılmamalı, Su tasarruflu bulaşık ve çamaşır makinaları kullanmak, Gereksiz yere duşta çok vakit geçirmemek, Kağıt havlular yerine tekstil havlular tercih etme, Evlerin ısı yalıtımının yapılması, Evlerin uygun(optimum) sıcaklıkta olması, Markanın yeşil vaatleri/yaptıkları, Tarımda mevsimine ve iklimine uygun gıda tüketimi, Plastik paketli ürünler yerine açık dökme usulü ya da dönüşebilen materyalden yapılan paketlemeyi tercih etmek, Kullanılamaz durumdaki kıyafetlerin geri dönüşümünün sağlamak, Kullanılabilir durumdaki tekstil ürünlerinde ikinci el kullanımı(satmak yada almak), Kullanılamaz durumdaki tekstil ürünlerin geri dönüşümünün sağlamak, Kağıt kullanmak yerine bilgisayar telefon gibi elektronik ve online araçlar tercih etmek, E-posta kutularını düzenli olarak temizlemek, gereksiz olan mailleri silmek(depolandığı için serverlarda enerji harcıyor), Hem online hem manuel yapılabilecek işlemleri online olarak yapmak.(mesela banka uygulamasından faturaları ödemek. Bankaya gitmeye gerek yok, Kağıt baskı olan fatura, kredi kartı ekstreleri gibi dijitalden de elde edilebilecek belgeleri dijital olarak talep etmek.

Katkıda bulunmak istedikleri -- Bisiklet tercih etmek, IoT(nesnelerin interneti) ile entegre edilerek enerji ve zaman kazanımı sağlamak, Yağmur suyu hasadı yapılabilinir, Geri dönüşüm geçirebilecek plastik, cam, kağıt vb.. çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak.

Interviewer: İklim değişikliği konusunda sizi bir tedbir alma/destek olma konusunda teşvik eden ve engelleyen faktörler nelerdir?

Participant: Teşvik eden faktörler: Faydalı olduğunu bilmek teşvik eder. İhtiyaç sahibi olanlara ulaştırmak da teşvik eder. Vergiler teşvik edici olur. Yapılanların sağlıklı olduğunu düşündüğüm zaman yaparım.

Engelleyen faktörler: karar alırken eşimi de ikna etmem gerekiyor. İkna olması biraz zor biri. Maddi imkanlar beni sınırlıyor. Mesela apartmanda yaşıyorum apartman sakinleri onaylamayacağı iin güneş enerjisi taktıramam. Bilgisizlik. Kompost yapmayı bilmiyorum mesela ama öğrenirsem hoşuma giderse yaparım.

B.4.2. Participant No 2

Age: 27
Gender: Erkek

Education: Yüksek lisans

Occupation: Makine mühendisi

Working condition: Çalışıyor

Income: 4500tl

Interview date: 22.12.2021 18:00

Interview environment: Telefon görüşmesi

Interviewer: Çevre/İklim değişikliği" konusunda ne düşünüyorsunuz?

Participant: Çok israf var. İnsanlar bilinçsiz şekilde ellerindeki araçları kullanıyorlar, sonuçlarını bilmeden davranıyorlar. Bilinçlendirme gerekiyor.

Interviewer: iklim değişikliği sizin için önemli mi? neden önemli?

Participant: Şu şekilde önemli; sert geçişler yaşıyoruz, mevsimleri yaşayamıyoruz, bir anda soğuklar geldi mesela. Önemli bir konu.

Interviewer: İklim değişikliğinin hangi somut yönü sizi en fazla olumsuz olarak etkileyebilir?

Participant: Türkiye şartları içerisinde baktığımızda sıcak soğuk geçişleri hastalık getiriyor sağlığım için önemli.

Interviewer: Green lifestyle kavramını daha önce duymuş muydunuz? ne düşünüyorsunuz?

Participant: Duydum fakat içeriği hakkında bilgim yok

Interviewer: İklim değişikliğinin engellenebilir olduğunu düşünüyor musunuz?

Participant: Elimizdekileri bilinçli şekilde kullanmak önemli. Engellenebilir olduğunu düşünmüyorum. Elimizdekilerle ne yaparsak o.

Interviewer: (siz ve arkadaşlarınız) Günlük hayatınızda yapacağınız birkaç ufak değişiklik ile iklim değişikliğini önleme konusunda katkıda bulunabileceğinizi düşünüyor musunuz?

Participant: Kendi başıma, bir şey yapılabileceğini düşünmüyorum. Toplumsal olarak bazı hareketler yapılması gerekiyor. Okyanusa bir bardak su dökmek gibi olduğunu düşünüyorum bireysel katkının. Damlaya damlaya dolan gölden çok uzaktayız.

Interviewer: İklim değişikliğini önleme konusunda bireysel olarak yaptığınız eylemler var mı?

Participant: Su konusunda bulaşık yıkarken fln dikkat. Yeşili, doğayı desteklemek adına bir şeyler yapıyorum. Eğer alternatif varsa doğal yaşamı bozmamaya çalışıyorum.

Demo gösterilir.

Interviewer: Bu konu hakkında birşey yapabilmek adına yaşam standardınızda değişiklik yapmayı göze alır mısınız?

Participant: Topluluk olarak bir karar olursa yaparım. Elimden geleni yaparım ama yeterli olacağını düşünmüyorum. Çok büyük değişiklikler yapmam bu yüzden.

LİSTE gösterilir

Interviewer: Hangi konuda katkıda bulunmak istersiniz (içinde katkıda bulunanlar var ise işaretleyiniz)

Participant: Katkıda bulundukları – Bireysel olarak, özel araç tercihi yaparken EVs tercih edilebilir, Bireysel olarak, özel araçları EVs ile değiştirilebilir, Toplu taşıma tercih etmek, Uygun yerlere yürümeyi tercih etmek, Bisiklet tercih etmek, . Elektrikli scooter tercih etmek, Bireysel araçlarda EVs tercih etmek, Daha az sıklıkta araç kullanmak, İthal yerine yerli ürünler kullanmak. (sebze, meyve, mobilya...), Gidilecek yerlere ulaşımı karbon emisyonu yaratmayan taşıtlarla sağlamak, Kargo firmalarında; karbon emisyonu yaratmayan araçları kullanan firmaları tercih etmek, Enerji tasarruflu ürünlerin seçilmesi, Elektronik ürünleri satın alırken enerji tasarrufunun yanında üretim süreçlerinde de çevreye saygılı üretim süreci geliştiren firmaları tercih etmek, Sahip olunan elektronik ürünü ömrünün sonuna kadar kullanmak, IoT(nesnelerin interneti) ile entegre edilerek enerji ve zaman kazanımı sağlamak, Yenisini almak yerine küçük bakımlar/tamirler ile kullanmaya devam etmek, Evlerin ısı yalıtımlarının yapılmış olması, Evler inşa edilirken güneşin geliş açılarına göre yapılması, Yeşil mahallelerin talep edilmesi(atık dönüşümü, su israfını önleyecek çalışmaların yapılması, belediyelerden toplu taşıma için EVs talep etme, yenilenebilir enerji kullanımı, toplu ulaşım imkanları-böylece daha az araç kullanımı olacak, Oluşan gübre çiçeklere, evde tarım yapılıyorsa sebze meyvelere, park ve bahçelere dökülerek değerlendirilir, Organik atıklardan kompost yapmak. Oluşan gübre çiçeklere, evde tarım yapılıyorsa sebze meyvelere, park ve bahçelere dökülerek değerlendirilir, Geri dönüşüm geçirebilecek plastik, cam, kağıt,vb.. çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak, Elektronik cihazlar gibi çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak, Plastik poşet yerine bez gibi geri dönüşebilir ve tekrar tekrar kullanılabilen poşetleri tercih etmek, Kendi mataranı, bardağını, termosunu, geri dönüşebilir ve tekrar kullanılabilen pipetini yanında taşımak, Plastik çatal ve kaşık kullanmamak, Ambalajlamada plastik kullanmamak. Geri dönüştürülebilir malzemeler kullanmak, Atıksız kargo yapan firmaları tercih etmek, Boş yere su açık bırakılmamalı (mesela dişleri fırçalarken, elleri yıkarken su açık bırakılmamalı.), Su tasarruflu bulaşık ve çamaşır makinaları

kullanmak, Gereksiz yere duşta çok vakit geçirmemek, Kağıt havlular yerine tekstil havlular tercih etme, Yenilenebilir enerji kaynakları (güneş, rüzgar, biyokütle…) tercih etmek, Fosil yakıtların kullanılmaması, Evlerin ısı yalıtımının yapılması, Evlerin uygun(optimum) sıcaklıkta olması, Paketlemede kullandıkları malzemeler, Kargo firmasının yeşil enerji kullanması, Materyal olarak yeşil ham madde kullanım, Markanın doğaya-çevreye saygılı üretim yapması, Üretim ve ulaştırma(tedarik zincirinin her bir parçasında) süreçlerinde karbon emisyonunu azaltmak, . Sürdürülebilir ürün üretimi yapması, Bir markanın özel seri ürünü için şişe üstünde bulunan barkodu okutulan her şişe başına bir fidan dikme vaadi veriyor. bu tarz markalar yada ürünler tercih etmek, Markanın yeşil vaatleri/yaptıkları, Üretim süreçlerinde kirlilik önleme ilkesini benimsemiş, Tarımda mevsimine ve iklimine uygun gıda tüketimi, Tarım 4.0 ile birlikte tarımda karbon emisyonunu ve iklim değişikliğine neden olan diğer gazların oluşumunu engelleyerek – emisyon sözü veren çiftliklerde üretilen ürünleri tercih etme, Plastik paketli ürünler yerine açık dökme usulü ya da dönüşebilen materyalden yapılan paketlemeyi tercih etmek, Kullanılamaz durumdaki kıyafetlerin geri dönüşümünün sağlamak, Kullanılabilir durumdaki kıyafetlerin Dolap(online ikinci el pazarı) gibi uygulamalar aracılığı ile ikinci el kullanımı(satmak ya da almak), Kullanılabilir durumdaki tekstil ürünlerinde ikinci el kullanımı(satmak yada almak), Kullanılamaz durumdaki tekstil ürünlerin geri dönüşümünün sağlamak, Kullanılabilir durumdaki mobilyaların ikinci el kullanımı(satmak ya da almak), Kullanılamaz durumdaki mobilyaların geri dönüşümünü sağlamak, Kullanılabilecek durumdaki eşyaların letgo (online ikinci el pazarı) gibi applerde satmak ya da satın almak, Deterjanlar, makyaj malzemeleri, kişisel bakım malzemeleri gibi kullanılan kimyasal ürünlerin doğaya zarar vermeyecek içerikte olanlarını tercih etmek, Çevreye/doğaya saygılı/duyarlı mekanları tercih etmek, Kağıt kullanmak yerine bilgisayar telefon gibi elektronik ve online araçlar tercih etmek, E-posta kutularını düzenli olarak temizlemek, gereksiz olan mailleri silmek(depolandığı için serverlarda enerji harcıyor), Hem online hem manuel yapılabilecek işlemleri online olarak yapmak.(mesela banka uygulamasından faturaları ödemek. Bankaya gitmeye gerek yok.), Kağıt baskı olan fatura, kredi kartı ekstreleri gibi dijitalden de elde edilebilecek belgeleri dijital olarak talep etmek.

Katkıda bulunmak istedikleri -- Toplu taşıma araçlarında EV tercih edilmesi, Bireysel olarak, özel araç tercihi yaparken EVs tercih edilebilir, Elektrikli motor tercih etmek, Leed sertifikası gibi yeşil bina sertifikası olan binaların seçilmesi, Elde yıkama yapmamak

Interviewer İklim değişikliği konusunda sizi bir tedbir alma/destek olma konusunda teşvik eden ve engelleyen faktörler nelerdir?

Participant: Teşvik eden faktörler: Çevreyi çok kötü kullanıyoruz. Bir şeyler yapmak istiyorum ama toplum olarak yapılması gerekiyor.

Engelleyen faktörler: Alışkanlıklarım. Hayat standardımı düşünüyorum

B.4.3. Participant No 3

Age: 31

Gender: Kadın

Education: Lisans

Occupation: : Fizyoterapist

Working condition: Çalışıyor

Income: 10.000-15.000 tl

Interview date: 21.12.2021 17:30

Interview environment: Yüz yüze

Interviewer: "Çevre/İklim değişikliği" konusunda ne düşünüyorsunuz?

Participant: Genel olarak baktığımızda berbat bir hale doğru sürüklendiğimizi düşünüyorum. Ben mesela kendi hayatımda değişimi hissediyorum. Mevsimlerin kayışını hissediyorum. Ya bi 10 sene öncesini bile düşündüğümüzde bile çok farklı zamanlarda farklı şeyler yaşıyoruz ve aniden geliyor, bir hazırlık olmadan bi anda yüklenen hava değişimleri yaşanıyor. Seller, yangınlar, soğuk. Mesela soğuk çok dengesiz gitmeye başladı. Önceden kış olurdu kış olduğunu bilirdik kalın giyinirdik, bi anda tshirte kadar kayacak giysiler değiştirmezdik. Dolabımızı değiştirme zamanımız netti. Ama şu an böyle bi düzen yok mesela. Onun dışında pandemi süreci vs gösterdi ki artık bi şeyler ters gidiyor ki global seviyeden hastalıklar oluşuyor.

Interviewer: iklim değişikliği sizin için önemli mi? neden önemli?

Participant: iklim değişikliği tabii ki önemli çünkü yaşıyorum bu durumları

Interviewer: İklim değişikliğinin hangi somut yönü sizi en fazla olumsuz olarak etkileyebilir?

Participant: Kuraklık etkileyecek bizi artık ya mesela artık üretim ülkesinden de kaydık ya bu belki birazcık siyasetle de ilgili bir alan oluyor belki ama standartlar değişiyor. Beslenme konusunda da değişeceğimizi düşünüyorum. Mesela şöyle düşün benim ailem çiftçilikle uğraşıyor şu anda ve her geçen gün para vererek kullanmaları gereken şeylerin sayısı artıyor. Artık sulama barajlarından eskisi kadar verim elde edemiyorlar bu bile aslında benim hayat kalitemi etkiliyor sonuçta sulamaya harcadıkları gider fazla şu anda. Ya da bu dengesizliklerden kaynaklı olarak mesela önceden kasım ayı geldiğinde sadece soba kurulur açılırdı. Şimdi soba kuruyorlar, soğutma işlemlerine giriyorlar vs. Yani bu sadece bir çiçek serası bunu gıdaya da uyarladığında ee muhtemelen beslenme konusunda etkileyecek ya. Sadece o da değil ki bu sefer o kadar çok katkılı gıda almaya başlıyorum ki.. yediğim hiçbir şeye karşı güvenim yok artık benim sebze dahi olsa bu. Tat da alamıyorum bir 10 sene önce yediğim salatalığın ya da başka bir şeyin tadını alamıyorum şu anda. Çoğunun babamın kendi yetiştirmesi olmasına rağmen. Ama artık toprak o kadar bozuk, belki suladığı su bile o kadar farklı ki artık. Çünkü şebeke suyundan çekmek zorunda kalıyorlar artık sulama için. Önceden sulama barajlarından doğal su, mineralden zengin su geliyordu bahçeye ama şu an envai çeşit tarım ilacı kullanılıyor yan tarafımızda üretimde bir sürü şeyi etkiliyor şu anda. Ama en çok beslenmede etkileyecek diye düşünüyorum.

Interviewer: Green lifestyle kavramını daha önce duymuş muydunuz? ne düşünüyorsunuz?

Participant: eninde sonunda kaymamız gerekecek o yöne doğru. Sürdürülebilirlik adına hepimizin adım atması gerekecek ama yani gerçek anlamda çevremde ve kendimde bu yönde adım atıyor muyum? Hayır. Sadece kavramdan haberdarım.

Interviewer: İklim değişikliğinin engellenebilir olduğunu düşünüyor musunuz?

Participant: Engellenemeyeceğini düşünüyorum gittikçe daha kötüye doğru gideceğini düşünüyorum. Çünkü bu şey kişisel olarak mesela sordun neyde hayatını etkileyecek diye etkiliyor hayatımı ben bile adım atmıyorum ki bunun bide böyle birçok kar zarar dengesi güden, bundan bir sürü ticari olarak gelir elde eden kuruluşlar var ya onların ben sürdürülebilirlik adına adımlar atıp karlarını düşüreceklerini düşünmüyorum. Dünyanın belli bir kesimi korunacak muhtemelen hatta şu anda bile birilerinin korunan topraklarda yaşayacağını düşünüyorum ama dünya bütün bir şekilde onları da bizi de etkileyecek ama bunla alakalı bir adım atılacak gibi, şöyle düzelteceğiz kendimizi gibi olumlu bakamıyorum geleceğe dair. Gittikçe daha kötü olacak gibi görüyorum sadece

Interviewer: (siz ve arkadaşlarınız) Günlük hayatınızda yapacağınız birkaç ufak değişiklik ile iklim değişikliğini önleme konusunda katkıda bulunabileceğinizi düşünüyor musunuz?

Participant: (bireysel değişiklikle tabi ki de katkıda bulunabiliriz. Ben mesela neleri değiştiriyorum hayatımda: kullandığım ürünlere bakmaya çalışıyorum artık, üretim şekillerine bakmaya çalışıyorum. Mesela deodoranttan vs. falan uzaklaştım artık kaya tuzu gibi doğal bir şeyler kullanıyorum. Bunlar çok küçük adımlar gibi geliyor bana ama bunu yapıyorum ve etrafımdakilere de söylüyorum, etrafımdakilerde de bir şeyleri değiştirme yönünde adımlar attığını görüyorum ama ben bunu böyle minicik çabalar olarak görüyorum neden bilmiyorum biraz olumsuz bakıyorum herhalde geleceğe. Sosyal ortamlarda insanları dinlediğimde çok umutsuzluk veriyor bana çünkü çok yüzeysel bakan bir nesil geliyor arkamızdan. Ve bizde çok arada kalmış bir nesiliz. Bir şeyler için gerçekten mücadele etmeyi, çalışmayı bilen bir nesilden ara geçiş neshiliyiz. Bizden sonra gelen artık tamamen bireysel faydasını yükseltmeye çalışıyor. Onlarda artık hayatındaki konfordan çok ödün verecek bir neshil gelmiyor yani. E konforda bizi o kadar kötü bir şekilde eline aldı ki. Hani bu giyimde de aynı şekilde kozmetikte canavar gibi, teknoloji desen bağımlısıyım. Ben bağımlısıyım, herkes bağımlısı, onlar kaç be kat bağımlısı. Yani evet dikkat ediyorum ama çok büyük değişiklikler oluşturabilir miyiz bilmiyorum.

Interviewer: İklim değişikliğini önleme konusunda bireysel olarak yaptığınız eylemler var mı?

Participant: Bence et tüketimi de çok büyük bir problem küresel ısınmada. Ben et tüketmiyorum. Biraz tadından falanda hoşlanmıyorum bu kendimi bildim bileli böyle ama şu an bilinçli olarak yapıyorum bunu. Önceden mesela gidiyordum bir yere bir lahmacun sipariş ediyordum ortasındakini sıyırıp ekmeğini yiyordum. Aslında bu bir tükettim şekli çöpe gönderiyorum onu yani bir şekilde tüketiyordum. Ama şu anda onu da yapmamaya çalışıyorum. Hiçbir şekilde et ürünlerini tüketmemeye çalışıyorum. Sütten olabildiğince uzaklaştım sadece köyde bildiğim yerlerden alırsam alıyorum. Onun dışında kozmetikte olabildiğince yerel üretimi olan fabrikasyon boyutuna taşımamış daha doğal ürünler koyan, katkı maddesinin olmadığı ürünleri tercih etmeye çalışıyorum. Alışveriş konusunu çok çözemedim. Teknolojiyi çözemedim. İşimde de mecburum teknolojik olarak telefon devamlı elimde olmak zorunda orayı çözemedim. Isınma mesela, gereksiz elektrik tüketimi yapmıyorum gerçekten ama belki bu çok uzun saatler evde olmadığım için de kaynaklanıyor olabilir. Yani elektriğe dikkat ediyorum

suyu açmamaya dikkat ediyorum. Bunlar hep çocukluğumuzdan beri bize öğretilen şeyler bunlara hep dikkat ediyoruz ama şu an biraz daha kozmetik bölümünde bir şeyleri değiştirip beslenmede de daha farkında olarak yapmaya çalışıyorum.

Demo gösterilir

Interviewer: Bu konu hakkında birşey yapabilmek adına yaşam standardınızda değişiklik yapmayı göze alır mısınız?

Participant: tabi ki alırım. Yani muhtemelen biraz az da yönlendiriliyoruz bu konuda. İlk okuldayken öğretmenlerimiz bize tutumlu olmak konusunda da olsa bir şeyler öğretiyorlardı bu konuda ama bir yerde de gerçekten iklim krizine çözümmüş çünkü evlerdeki elektrik tüketimi-gereksizse söndür lambalarını- su tüketimi aynı şekilde ya da ne ileyim eskiden okulda çiçek yetiştirmeyi falan öğrenirdik okullarda ya da bitkileri öğrenirdik, Türkiye de tarım alanlarını öğrenirdik. Şimdi o tarım alanlarından hiç biri kalmadı. Ya da çocuklar biraz daha mesleki yönde yönlendiriliyordu. Şimdi böyle bir farkındalık yok ama bunların ötesine de geçemiyorum ben şu an. Belki de çocuklukta bize yerleşmiş olan şeyler olduğundan ki çocukluk çok önemli bir çağ orda öğrendiklerimi sadece uyarlıyorum, üzerine ekleyebildiğimde sadece kendi çabamla ulaşabildiğim sayfaların yönergesiyle uyguladığım şeyler. Yine sosyal medya üzerinden ulaşabildiğim sayfaların yönlendirmesi ile yapıyorum. Mesela kozmetiği ele alırsak bir yere kadar farkında değildim ki deodorantı pıst pıst kullanıp geçiyordum, mesela kullandığım ürün yüzüme sürdüğüm ürün ne bilmiyordum. Yemeyeceğin şeyi yüzüne sürme yi ilk kez duydum ben bu sene ve ondan sonra ciddiye aldım ama şu an sadece buraya kadar yapabiliyorum. Daha büyük bir değişiklik daha büyük bir kısıtlama yapmak tabi ki isterim ama burada da birilerinin bizi dürtmesi, mecbur bırakması gerekiyor gibi düşünüyorum. Yasalar, vergiler. Vergilendirme çok güzel olabilir mesela gereksiz fazla tüketimde. Ya da ürünleri ayırt edebilirler. Ürün bazında doğallarda vergi oranını düşürebilirler ya da katkılı olanlarda biraz daha yüksek uygulayıp onları da sürdürülebilir üretime doğru çekebilirler. Bu benim bireysel çabam değil ama yapsalar gerçekten bireysel çabaya dönüştürürüm onu. Ama şu anda da uğraşıyorum dönüştürmek için uğraşıyorum ama muhtemelen bilgi olarak da yeterince zaman ayırmıyoruz bunları araştırmaya kendi adıma araştırmıyorum çünkü zamanım yok. Ama dünyanın da zamanı yok çok saçma bir savunma bu bunu da biliyorum ama.

Liste gösterilir

Interviewer: Hangi konuda katkıda bulunmak istersiniz (içinde katkıda bulunanlar var ise işaretleyiniz)

Participant: Katkıda bulundukları -- Uygun yerlere yürümeyi tercih etmek, Bisiklet tercih etmek, Daha az sıklıkta araç kullanmak, İthal yerine yerli ürünler kullanmak. (sebze, meyve, mobilya...), Gidilecek yerlere ulaşımı karbon emisyonu yaratmayan taşıtlarla sağlamak, Enerji tasarruflu ürünlerin seçilmesi, Sahip olunan elektronik ürünü ömrünün sonuna kadar kullanma, Yenisini almak yerine küçük bakımlar/tamirler ile kullanmaya devam etmek, Evlerin ısı yalıtımlarının yapılmış olması, Evler inşa edilirken güneşin geliş açılarına göre yapılması, . Oluşan gübre çiçeklere, evde tarım yapılıyorsa sebze meyvelere, park ve bahçelere dökülerek değerlendirilir, Organik atıklardan kompost yapmak. Oluşan gübre çiçeklere, evde tarım yapılıyorsa sebze meyvelere, park ve bahçelere dökülerek değerlendirilir, Elektronik cihazlar gibi çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak, Plastik poşet yerine bez gibi geri dönüşebilir ve tekrar tekrar kullanılabilen poşetleri tercih etmek, Kendi mataranı, bardağını, termosunu, geri dönüşebilir ve tekrar kullanılabilen pipetini yanında taşımak, Plastik çatal ve kaşık kullanmamak, Ambalajlamada plastik kullanmamak. Geri dönüştürülebilir malzemeler kullanmak, Boş yere su açık bırakılmamalı (mesela dişleri fırçalarken, elleri yıkarken su açık bırakılmamalı.), Su tasarruflu bulaşık ve çamaşır makinaları kullanmak, Elde yıkama yapmamak, Gereksiz yere duşta çok vakit geçirmemek, Plastik malzeme yerine geri dönüştürülebilen malzeme tercih etmek. Diş fırçası, sandalye gibi.., Makyaj çıkarmada tek kullanımlık pamuklar yerine yıkanıp kullanılabilen pamuklar/tekstil ürünlerini tercih etmek, Yenilenebilir enerji kaynakları (güneş, rüzgar, biyokütle…) tercih etmek, Evlerin ısı yalıtımının yapılması, Evlerin uygun(optimum) sıcaklıkta olması, Sürdürülebilir ürün üretimi yapması, Et gibi gıdaların yerine daha az sera gazı emisyonu üreten sebze/meyve tüketmek, Tarımda mevsimine ve iklimine uygun gıda tüketimi, Plastik paketli ürünler yerine açık dökme usulü ya da dönüşebilen materyalden yapılan paketlemeyi tercih etmek, Kullanılamaz durumdaki kıyafetlerin geri dönüşümünün sağlamak, . Kullanılabilir durumdaki kıyafetlerin Dolap(online ikinci el pazarı) gibi uygulamalar aracılığı ile ikinci el kullanımı(satmak ya da almak), Kullanılabilir durumdaki tekstil ürünlerinde ikinci el kullanımı(satmak yada almak), Kullanılamaz durumdaki tekstil ürünlerin geri dönüşümünün sağlamak, Kullanılabilir durumdaki mobilyaların ikinci el kullanımı(satmak ya da almak, Kullanılamaz durumdaki mobilyaların geri dönüşümünü sağlamak, Kullanılabilecek durumdaki eşyaların letgo (online ikinci el pazarı) gibi applerde satmak ya da satın almak, Deterjanlar, makyaj malzemeleri, kişisel bakım malzemeleri gibi kullanılan kimyasal ürünlerin doğaya zarar vermeyecek içerikte

olanlarını tercih etmek, Çevreye/doğaya saygılı/duyarlı mekanları tercih etmek, Kağıt kullanmak yerine bilgisayar telefon gibi elektronik ve online araçlar tercih etmek, Hem online hem manuel yapılabilecek işlemleri online olarak yapmak.(mesela banka uygulamasından faturaları ödemek. Bankaya gitmeye gerek yok, Kağıt baskı olan fatura, kredi kartı ekstreleri gibi dijitalden de elde edilebilecek belgeleri dijital olarak talep etmek.

Katkıda bulunmak istedikleri -- IoT(nesnelerin interneti) ile entegre edilerek enerji ve zaman kazanımı sağlamak, Bir markanın özel seri ürünü için şişe üstünde bulunan barkodu okutulan her şişe başına bir fidan dikme vaadi veriyor. bu tarz markalar yada ürünler tercih etmek, Üretim süreçlerinde kirlilik önleme ilkesini benimsemiş.

Interviewer: İklim değişikliği konusunda sizi bir tedbir alma/destek olma konusunda teşvik eden ve engelleyen faktörler nelerdir?

Participant: teşvik eden faktörler: başta da konuştuk zaten. Bir kere çocuk sahibi olmak istiyorum şu anda ona bile bırakabileceğim bir dünyanın daha iyi olmasını isterim tabi ki üzerime düşeni yapmayı isterim. İkincisi sağlığım. Ben gerçekten hasta olmaktan nefret eden bir insanım ve çok sık hasta olabiliyoruz bu konular yüzünden. Ve o kadar bencil değilim benim olmasa bile başkalarının geleceğinde de güzel yerler olsun itiyorum, güzel bir hayatları olsun istiyorum. Genel olarak benden sonra gelecek nesiller güzel bir dünyada yaşasın istiyorum yani tabi kendimde daha güzel bi dünyada yaşamak isterim. Daha az problemlerle karşılaşmak isterim daha sağlıklı beslenmek isterim vs. vs.

Engelleyen en büyük faktör: tabi ki ekonomik. Bu yani bi şeyleri destekleyen ürünler desteklemeyen ürünlerin yanına fiyat olarak yaklaşamıyor genel olarak. Ekonomik engellere takılıyorum en çok. Bir de zaman faktörüne takılıyorum ya. Araştırma konusunda zaman faktörüne takılıyorum yani yeteri kadar ilgilenip araştıracak zamanı yaratamıyorum kendime. Belki de üzerinde fazla düşünmüyorum. Gerektiği kadar düşünmüyorum çünkü zamanım yok. Hayatımı bu şartlarda idame ettirebilmem için çok yoğun çalışmak zorundayım.

B.4.4. Participant No 4

Age: 25

Gender: Erkek

Education: Lisans

Occupation: Kimya mühendisi

Working condition: Çalışıyor

Income: 5000-8000 tl

Interview date: 22.12.2021 20:00

Interview environment: Yüz yüze

Interviewer: "Çevre/İklim değişikliği" konusunda ne düşünüyorsunuz?

Participant: Sonuçta karbondioksit gazlarının sera etkisi yapmasıyla oluşan bir şey. Bunundada temel sebebi bizim gibi mühendislerin değer vermediği dünyamız. Üretimden kaynaklı atıkların salınması. Olmaması gereken bir şey dikkat edilse, yapılmaması gereken bi şey. Her şey düzensizliğe gitme eğiliminde olduğu için entropi hiçbir şekilde engellenemez elbette olucak bir şey ne kadar dikkat etsekte.

Interviewer: iklim değişikliği sizin için önemli mi? neden önemli?

Participant: Önemli tabi ki çünkü gelecek nesillere hiçbir şey kalmıyor şu anda. Şu anda buzullar eridiği zaman bizim orta kuşak iklimimiz çöl iklimine dönüşecek bu da ilerleyen yıllarda yaşayan insanlara büyük sıkıntı çıkaracak.

Interviewer: İklim değişikliğinin hangi somut yönü sizi en fazla olumsuz olarak etkileyebilir

Participant:

Interviewer: Green lifestyle kavramını daha önce duymuş muydunuz? ne düşünüyorsunuz?

Participant: Şu an duydum. Daha önce duymamıştım.

Interviewer: İklim değişikliğinin engellenebilir olduğunu düşünüyor musunuz?

Participant: Hayır engellenemez. Çünkü üretim oldukça, insanlar bir şeyler yaptıkça daha önce dediğim gibi hayattaki her şey bir düzensizlik eğiliminde ve düzensizliğin temel sebebi de entropi. Termodinamiğin temel yasasına göre de entropi her zaman artar, hiçbir şekilde azalmaz ya da sıfırda kalmaz. Zaten azalamaz azalması imkansız, sıfır değeri de teorik.

Interviewer: (siz ve arkadaşlarınız) Günlük hayatınızda yapacağınız birkaç ufak değişiklik ile iklim değişikliğini önleme konusunda katkıda bulunabileceğinizi düşünüyor musunuz?

Participant: Üretimde atılan atıkları daha düzenli bir şekilde kontrol altına alabilirsek veya salınan gazları filtreleme yapsan bile elbet kaçıyor yani filtreler şu an %40 verimle çalışıyor, verimi her zaman çok düşük.

Interviewer: İklim değişikliğini önleme konusunda bireysel olarak yaptığınız eylemler var mı?

Participant: YapmıyorumJ ışıkları kapatıyorum, suyu çok fazla sarf etmemeye çalışıyorum. Ama çalıştığın iş ortamında bunlara dikkat etmiyorsun

Demo gösterilir

Participant: YORUMU. volsvogen mesela e-motor tarzı bir şey yaptı bütün yatırımlarını kesip elektrikle çalışan sadece motora yatırım yaptı tüm finansmanını. Japonlar karbondioksit gazını oksijene çeviren gece lambaları yaptı. Gece bile fotosentez yapıyor oksijen üretiyor.)

Interviewer: Bu konu hakkında birşey yapabilmek adına yaşam standardınızda değişiklik yapmayı göze alır mısınız?

Participant: tabi ki vermek gerekiyor çünkü ben daha 25 yaşındayım ve önümüzdeki 10 sene içinde dünyanın yaklaşık 1.5 derece artacağını düşünürsek ben direk yok oluşta bulunmuş olucaz.

Liste gösterilir.

Interviewer: Hangi konuda katkıda bulunmak istersiniz (içinde katkıda bulananlar var ise işaretleyiniz)?

Participant: Katkıda bulundukları – Toplu taşıma araçlarında EV tercih edilmesi, Toplu taşıma tercih etmek, uygun yerlere yürümeyi tercih etmek, Daha az sıklıkta araç kullanmak, Gidilecek yerlere ulaşımı karbon emisyonu yaratmayan taşıtlarla sağlamak, Enerji tasarruflu ürünlerin seçilmesi, IoT(nesnelerin interneti) ile entegre edilerek enerji ve zaman kazanımı sağlamak, Evlerin ısı yalıtımlarının yapılmış olması, Geri dönüşüm geçirebilecek plastik, cam, kağıt,vb.. çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak, Elektronik cihazlar gibi çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak, Boş yere su açık bırakılmamalı (mesela dişleri fırçalarken, elleri yıkarken su açık bırakılmamalı.), Gereksiz yere duşta çok vakit geçirmemek, Evlerin ısı yalıtımının yapılması, Bir markanın özel seri ürünü için şişe üstünde bulunan barkodu okutulan her şişe başına bir fidan dikme vaadi veriyor. bu tarz markalar yada ürünler tercih etmek, Kullanılamaz durumdaki kıyafetlerin geri dönüşümünün sağlamak, Kullanılabilir durumdaki kıyafetlerin Dolap(online ikinci el pazarı) gibi uygulamalar aracılığı ile ikinci el kullanımı(satmak ya da almak), Kullanılabilir durumdaki tekstil ürünlerinde

ikinci el kullanımı(satmak yada almak), Kağıt kullanmak yerine bilgisayar telefon gibi elektronik ve online araçlar tercih etmek, Hem online hem manuel yapılabilecek işlemleri online olarak yapmak.(mesela banka uygulamasından faturaları ödemek. Bankaya gitmeye gerek yok.), Kağıt baskı olan fatura, kredi kartı ekstreleri gibi dijitalden de elde edilebilecek belgeleri dijital olarak talep etmek.

Katkıda bulunmak istedikleri -- Bireysel olarak, özel araç tercihi yaparken EVs tercih edilebilir, Evler inşa edilirken güneşin geliş açılarına göre yapılması, Ambalajlamada plastik kullanmamak. Geri dönüştürülebilir malzemeler kullanmak, Yenilenebilir enerji kaynakları (güneş, rüzgar, biyokütle…) tercih etmek, Kullanılamaz durumdaki tekstil ürünlerin geri dönüşümünün sağlamak,

Interviewer: İklim değişikliği konusunda sizi bir tedbir alma/destek olma konusunda teşvik eden ve engelleyen faktörler nelerdir?

Participant: Teşvik eden faktörler: elektronik motorlu araçların ucuzlaması insanları teşvik eder mesela. Elektrikli arabaların şarjlarının her yerde olması karbondioksit gazının salınımını azaltır mesela.

Engelleyen faktöreler: Bulunduğumuz ülke. Coğrafya kaderdirJ ekonomik durum ve istihdamın yetersiz kalması sonucu insanların problem yaşaması. Endüstri 4.0 tam bu işe göre mesela ama insanlar endüstri 4.0 a geçtiği zaman yaklaşık şu an çalışan nüfusun yarıdan fazlası işsiz kalıcak. Çünkü işçiye ihtiyaç kalmayacak kas gücüne dayalı hiçbir şey olmayacak.

B.4.5. Participant No 5

Age: 27

Gender: Kadın

Education: Yüksek lisans

Occupation: Yüksek mimar

Working condition: Çalışıyor

Income: 6500 tl

Interview date: 23.12.2021 20:00

Interview environment: Telefon görüşmesi

Interviewer: "Çevre/İklim değişikliği" konusunda ne düşünüyorsunuz?

Participant: hayatımızı etkilediğini ama yeterince farkındalık bilincine gelemediğimizi düşünüyorum. Hani etkinlikler falan oluyor ama ne kadar etkili oluyor emin değilim.

Interviewer: iklim değişikliği sizin için önemli mi? neden önemli?

Participant: Benim için önemli çünkü insanoğlunun var olan bir şeyin düzenini bozuyor olması beni gelecek nesiller için üzüyor açıkçası. Hem de bizim içinde yani bir 10 yıl sonra ne olacağı belli değil şu an. Bir sürü farklı sonucu var yani.

Interviewer: İklim değişikliğinin hangi somut yönü sizi en fazla olumsuz olarak etkileyebilir?

Participant: Şu an en basit örneği mevsimleri yaşayamamamız yani. O değişik geliyor bana kışı kış gibi yaşıyoruz tamam bahar yok gibi bir şey artık. Yazın çok sıcak kışın çok soğuk o arada böyle mevsim kalmayacak gibi. Yangınların olma sebebi mesela covid hiç aklımızda yoktu ve aklımızda olmayan iklimle ilgilide böyle şeyler yaşayabiliriz. Hayvanlara da çok üzülüyorum. Çünkü neden biliyor musun şu anda bizden çok hayvanlar etkileniyor. Onların doğasında örneğin kuşlar tüylerini ona göre döküyor ya da uçuş yönleri gibi. Hayvanlar bizden daha çok etkileniyor şu an. Biz doğa gereği o kadar etkilenmediğimiz için yokmuş gibi davranıyoruz. Hepimiz öyle yapıyoruz dikkat etmeye çalışıyoruz ama ne kadar dikkat ediyoruz ki?

Interviewer: Green lifestyle kavramını daha önce duymuş muydunuz? ne düşünüyorsunuz?

Participant: evet duymuştum. Ben bunu daha çok mimari açıdan inceledim. Yüksek lisansta, malzeme alanında ve inşaat süreçlerinde çok etkiliydi. Mesela herkes öyle yaşasa ne kadar önlenir bilmiyorum ama yine de etkiler diye düşünüyorum. Bunlarda işin içine biraz maliyet giriyor. Geri dönüşüm olsun çevreci yaşamak olsun. Belki biraz toplu olarak hareket etmeliyiz. Ya tüm dünyada hızlı tüketime fazla alıştığımız için bunlara sabrımız yok mesela bir şeyi bekleyip sonra dönüştürüp kullanmaya falan. Ama eskiden her şey dönüşüm yapılırdı, bunlar bilinen şeylerdi. Çok doğaldı. Yani dediğim gibi bir ev bile evin yanında olduğu bölgede hangi malzemeler varsa o toprağı kullanıyordun o ürünle bağlıyordun o şekilde çimento yapıyordun o şekilde duvarı örüyordun. Mesela Karadeniz de ahşap çok fazla olduğu için onu kullanıyorlar, başka bir yerde taş çok olduğu için onu kullanıyorlar yani tamamen o topraktan yaşadıkları yerden alıyorlar. Ama şu an sonradan ne oldu? Betonarmeye döndük betonarmede acayip bir gaz salınımı yapan bir ürün. Ama şu anda hiç kimsenin ahşap bir evde oturup ona bakmaya sabrı yok bence. Çünkü o yapılar çok bakım isteyen bir şey. Şu an yapılan çalışmalar var köyünü yaşat diye köyleri koruyup o üretim yöntemlerini sürdürmeye

falan çalışıyorlar. Bunlar tabi ki çok kısıtlı kalıyorlar. Şehirler çok kalabalık olduğu için hani ahşap bina olması zor. Bir de bunlar maliyetli.

Interviewer: İklim değişikliğinin engellenebilir olduğunu düşünüyor musunuz?

Participant: Eskiden şey düşünüyordum bireysel olarak yaptığımız şeylerin etkili olabileceğini düşünüyordum aslında hani daha az suyu açmak gibi ışığı kapatmak gibi mesela ama hani böyle büyük üretim yerlerinin fabrikaların tesislerin yaptıkları tüketim çılgınlığını görüyoruz. Bunları görünce şey moduna giriyorum hani biz nasıl etkileyeceğiz ki? Çok daha üst düzey, yönetimsel bir şekilde ülkeler birleşerek hani ülkeler şimdi toplanıp bir şeyler yapıyorlar ya bunlar ne kadar etkili ona bağlı biraz da. O şekilde engellenebilir. Bireysel olarak yaptığımız şeyler hani yine etkiler ama daha köklü bir etki için daha büyük bir organizasyonun olması gerekiyor bence. Toplum zaten bunlardan etkilenecek. Dünyayı yöneten bazı güçler var o güçlerin elinde bence bu tarz şeyler. Ama dünya kapitalist bir sistem olduğu için sen kimseye diyemezsin ki daha az t-shirt al daha az su harcamış olursun. Ama kimsenin işine gelmeyecek bu. Ama yine de aşırı umutsuz da değilim. Çünkü zaman geçtikçe bir şeyler daha sağlam adımlar atılmaya başlanıyor gibi geliyor bana. En azıdan bize öyle gösteriyorlar. Bence bunların biraz denetlenmesi gerekiyor. Çok fazla kalem var bu konuda. Aslında ben de bu konuda biraz kararsızım umutlu mu olmalıyım umutsuz mu? O yüzden cevaplarım bazen çelişkili olabilir. Toplumsal olarak baktığımızda yokluktan gelen bir millet olduğumuz için bazı şeyleri çabuk unuttuk bence. Mesela şu an bir şeyi kullanmıyorsan bile alıyorsun. Eskiden öyle değilmiş hani bir şeyin oluyormuş ona göre yaşıyormuşsun. Elindekine göre yani. Yurt dışına gittiğimde şeyi çok hissetmiştim biz çok teknolojiye bağlanmışız mesela. En son ne tv ya da ne telefon çıkarsa onu alıyoruz. İnsanlar eski tv de eski telefonda kullanıyorlardı yurtdışında. Her zaman tüketim toplumuyduk da eskiden tüketim hızı bu kadar değildi. İklimsel farklılık işte son zamanlarda daha çok hissediliyor. Son 50 yıllık olaylar şu an son 10 yılda görüyoruz hızlandığımız için.

Interviewer: (siz ve arkadaşlarınız) Günlük hayatınızda yapacağınız birkaç ufak değişiklik ile iklim değişikliğini önleme konusunda katkıda bulunabileceğinizi düşünüyor musunuz?

Participant: karasızım bu konuda biraz. Önceden önlenebileceğini düşünüyordum, dikkatte ediyorum yine de. Daha az tüketmeye ya da kullandığım şeylere dikkat etmeye. Yine de büyük ellerin elinde olan bir şey gibi geliyor bana artık.

Interviewer: İklim değişikliğini önleme konusunda bireysel olarak yaptığınız eylemler var mı?

Participant: Suya her zaman çok dikkat ederim. Küçüklüğümüzden beri hepimizin alışık olduğu bir şey bu tüketimi daha çok azaltmak için. Evim ırmak kenarında ve ırmağın azaldığını görüyorum o beni üzdüğü için suyun başına gittiğim zaman o aklıma geliyor. Kıyafetlerin üretiminde de çok fazla çevre etkileri oluyor çok fazla şey almamaya çalışıyorum ihtiyacım yoksa. Tüketimimi azaltmaya çalışıyorum ihtiyacım olan kadar tüketmeye çalışıyorum yani. Onun dışında ağaç falan dikmiyorum ama diksem daha güzel olur.

Demo gösterilir.

Interviewer: Bu konu hakkında birşey yapabilmek adına yaşam standardınızda değişiklik yapmayı göze alır mısınız?

Participant: alırım yeter ki dünyamız güzel olsunJ toplu olarak yapabileceğimiz bir şeyler olsa daha iyi olur. Mesela Almanya tek kullanımlık poşetleri yakalıyor. Öyle bir şey olsa herkesin hep birlikte yapabileceği tarzda çalışsalar daha inanarak yaparım. Denetlemesi olan bir şeyler olursa. Zorunda bırakılmak toplumsal olarak daha iyi çünkü sen yaparsın başkası yapmaz. Bu seferde benim tek yaptığım ne kadar etkili olur diye düşünüyorsun. Senle konuşunca biraz daha kendim bakıp dikkat edebilirim bunu fark ettim. Önceden daha çok dikkat ediyordum şu an zaten oluyor iklim krizi bir şey yapsak da değişmiyor gibi düşünüyorum biraz. Bıkmışlık gibi bir şeyler oldu. Çok iyi yapan kişiler organizasyonlar var. Onlardan belki teyit almak lazım. Yaptığım şeylerin etkili olduğuna inanmak istiyorum. Sonucunu görmek istiyorum.

Liste gösterilir

Interviewer: Hangi konuda katkıda bulunmak istersiniz (içinde katkıda bulunanlar var ise işaretleyiniz)

Participant: Katkıda bulundukları – Toplu taşıma tercih etmek, Uygun yerlere yürümeyi tercih etmek, İthal yerine yerli ürünler kullanmak. (sebze, meyve, mobilya...), Gidilecek yerlere ulaşımı karbon emisyonu yaratmayan taşıtlarla sağlamak, Enerji tasarruflu ürünlerin seçilmesi, Elektronik ürünleri satın alırken enerji tasarrufunun yanında üretim süreçlerinde de çevreye saygılı üretim süreci geliştiren firmaları tercih etmek, Sahip olunan elektronik ürünü ömrünün sonuna kadar kullanmak, Yenisini almak yerine küçük bakımlar/tamirler ile kullanmaya devam etmek, Evlerin ısı yalıtımlarının yapılmış olması, Evler inşa edilirken güneşin geliş açılarına göre yapılması, Geri dönüşüm geçirebilecek plastik, cam, kağıt,vb.. çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak, Elektronik cihazlar gibi çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak, Plastik poşet yerine bez gibi geri dönüşebilir ve tekrar

tekrar kullanılabilen poşetleri tercih etmek, Kendi mataranı, bardağını, termosunu, geri dönüşebilir ve tekrar kullanılabilen pipetini yanında taşımak, Plastik çatal ve kaşık kullanmamak, Ambalajlamada plastik kullanmamak. Geri dönüştürülebilir malzemeler kullanmak, Atıksız kargo yapan firmaları tercih etmek, Boş yere su açık bırakılmamalı (mesela dişleri fırçalarken, elleri yıkarken su açık bırakılmamalı, Su tasarruflu bulaşık ve çamaşır makinaları kullanmak, Elde yıkama yapmamak, Gereksiz yere duşta çok vakit geçirmemek, Kağıt havlular yerine tekstil havlular tercih etme, . Evlerin ısı yalıtımının yapılması, Evlerin uygun(optimum) sıcaklıkta olması, Paketlemede kullandıkları malzemeler, Materyal olarak yeşil ham madde kullanımı, Markanın doğaya-çevreye saygılı üretim yapması, Üretim ve ulaştırma(tedarik zincirinin her bir parçasında) süreçlerinde karbon emisyonunu azaltmak, Sürdürülebilir ürün üretimi yapması, Bir markanın özel seri ürünü için şişe üstünde bulunan barkodu okutulan her şişe başına bir fidan dikme vaadi veriyor. bu tarz markalar yada ürünler tercih etmek, Markanın yeşil vaatleri/yaptıkları, Markanın yeşil vaatleri/yaptıkları, Üretim süreçlerinde kirlilik önleme ilkesini benimsemiş, Et gibi gıdaların yerine daha az sera gazı emisyonu üreten sebze/meyve tüketmek, Tarımda mevsimine ve iklimine uygun gıda tüketimi, Plastik paketli ürünler yerine açık dökme usulü ya da dönüşebilen materyalden yapılan paketlemeyi tercih etmek, Kullanılamaz durumdaki kıyafetlerin geri dönüşümünün sağlamak, Kullanılabilir durumdaki kıyafetlerin Dolap(online ikinci el pazarı) gibi uygulamalar aracılığı ile ikinci el kullanımı(satmak ya da almak), Kullanılamaz durumdaki tekstil ürünlerin geri dönüşümünün sağlamak, Kullanılabilir durumdaki mobilyaların ikinci el kullanımı(satmak ya da almak), Kullanılamaz durumdaki mobilyaların geri dönüşümünü sağlamak, Kullanılabilecek durumdaki eşyaların letgo (online ikinci el pazarı) gibi applerde satmak ya da satın almak, Deterjanlar, makyaj malzemeleri, kişisel bakım malzemeleri gibi kullanılan kimyasal ürünlerin doğaya zarar vermeyecek içerikte olanlarını tercih etmek, Çevreye/doğaya saygılı/duyarlı mekanları tercih etmek, Kağıt kullanmak yerine bilgisayar telefon gibi elektronik ve online araçlar tercih etmek, E-posta kutularını düzenli olarak temizlemek, gereksiz olan mailleri silmek(depolandığı için serverlarda enerji harcıyor), Hem online hem manuel yapılabilecek işlemleri online olarak yapmak.(mesela banka uygulamasından faturaları ödemek. Bankaya gitmeye gerek yok.), Kağıt baskı olan fatura, kredi kartı ekstreleri gibi dijitalden de elde edilebilecek belgeleri dijital olarak talep etmek.

Katkıda bulunmak istedikleri -- Bisiklet tercih etmek, Kargo firmalarında; karbon emisyonu yaratmayan araçları kullanan firmaları tercih etmek, Leed sertifikası gibi yeşil bina sertifikası olan binaların seçilmesi, Yeşil mahallelerin talep edilmesi(atık dönüşümü, su israfını önleyecek çalışmaların yapılması, belediyelerden toplu taşıma için EVs talep etme, yenilenebilir enerji kullanımı, toplu ulaşım imkanları-böylece daha az araç kullanımı olacak-, Yağmur suyu hasadı yapılabilinir, Yenilenebilir enerji kaynakları (güneş, rüzgar, biyokütle…) tercih etmek.

Interviewer: İklim değişikliği konusunda sizi bir tedbir alma/destek olma konusunda teşvik eden ve engelleyen faktörler nelerdir?

Participant: teşvik eden faktörler: kendin dünyaya yaralı bir şeyler yapmak iyi geliyor. İyi bir şey yapıyorum hissi teşvik ediyor. Organizasyonlar teşvik ediyor. Kurumlar, stk lar. Sonucunu görmek teşvik edici.

Engelleyen faktörler: kötü olan örnekler engelliyor. Dünyanın, bulunduğumuz ülkenin toplumsal düzeni etkiliyor. Bazı şeyler çok yaygın değil mesela ürün alırken o ürünün sürdürülebilirlik şartlarına göre üretilmesi vs. çok yaygın değil ya kimse dikkat etmiyor ben ne kadar dikkat edebilirim ki diye düşünüyorum. Büyük balıkların daha çok sözünün geçmesi onların bir şeyler yapması lazım biz küçük balık olarak çok etkili olmuyoruz. O düşünce beni engelliyor. Maddi durumda etkileyen bir faktör. Mesela sürdürülebilir ürün olunca daha pahalı oluyor. Geri dönüştürme masraflı bir şey falan. Ya da bi ürün bozulduğunda yaptıracağın zaman daha maliyetli oluyor. Ülkenin olduğu durumdan da dolayı en çok maddi olan şeyleri düşünüyoruz.

B.4.6. Participant No 6

Age: 26

Gender: Erkek

Education: Lisans öğrencisi

Occupation: Öğrenci

Working condition: Öğrenci

Income: 2000-2800 tl

Interview date: 21.12.2021 20:30

Interview environment: Yüz yüze

Interviewer: "Çevre/İklim değişikliği" konusunda ne düşünüyorsunuz?

Participant: en başta gerçek olduğunu düşünüyorum. İklim değişiyor ve bunu için yapılması gereken şeyleri yapmadığımızı düşünüyorum yeteri kadar (dünya olarak). İnsanlarda bir şey yapmıyor veya çok önemsemiyor hükümetlerde aynı şekilde.

Interviewer: iklim değişikliği sizin için önemli mi? neden önemli?

Participant: evet. Çünkü ilerleyen zamanlarda bu hayatı yaşıyorsam hani ne bileyim bir yerde susuz kalmak istemem, kuraklık çekmek istemem açlık çekmek istemem.

Interviewer: İklim değişikliğinin hangi somut yönü sizi en fazla olumsuz olarak etkileyebilir?

Participant: susuzluk

Interviewer: Green lifestyle kavramını daha önce duymuş muydunuz? ne düşünüyorsunuz?

Participant: olması gereken hayat gibi. İklim değişikliğine duyarlı olmak, hayvanlara karşı duyarlı olmak, insanlara karşı duyarlı olmak. Ama bu ütopya bence. Sağlanması çok mümkün bir şey değil. Ben belki yaşayabilirim sen yaşayabilirsin ama global olarak baktığımızda benim yaşamam yeterli olmayacak bence. Ne kadar iyiye gidersek gidelim bir yerde patlak verecek. Mesela bir savaş çıkar gideriz 200 sene geriye. Olabileceğini, gerçekleşebileceğini düşünmüyorum çok fazla.

Interviewer: İklim değişikliğinin engellenebilir olduğunu düşünüyor musunuz?

Participant: Engellenebilir. Hem gelişen teknolojiler etkili olabilir. İnsanların şu an ki haberleşme olanakları sayesinde daha bilgili daha duyarlı olabileceğini düşünüyorum. İklim değişikliği engellenebilir ama engellenebilir mi bunu da tam bilmiyorum ama en azından ertelenebilir yani sonuç olarak bir yerde yaşanacak. Çünkü bu dünyanın da yapısında yapısında var hani elinde olmayan bir sebepten de olabilir mesela bir volkan patlar, süper volkan patlar ki ortalama 600 bin yılda bir olan bir şey bu dünya iklimi tamamen değişiyor. Ya da bir göktaşı çarpar değişir. Bu tarz şeyler tabi ki bizim etki edemeyeceğimiz şeyler onun dışında ama insanlığın olabildiğince erteleyebileceğini düşünüyorum.

Interviewer: (siz ve arkadaşlarınız) Günlük hayatınızda yapacağınız birkaç ufak değişiklik ile iklim değişikliğini önleme konusunda katkıda bulunabileceğinizi düşünüyor musunuz?

Participant: Evet düşünüyorum.

Interviewer: İklim değişikliğini önleme konusunda bireysel olarak yaptığınız eylemler var mı?

Participant: Suyu az kullanmak, çöplerimi mümkün olduğunca çöpe atmak. Geri dönüşüm noktaları bizde çok fazla bilinen bir şey değil ki geri dönüşüm noktaları bizde çok az yok gibi bir şey hatta. O yüzden plastiği de camı da aynı çöpe atıyoruz ve hepsi aynı yere gidiyor. Onun dışında bireysel olarak yapabileceğim şeyler yok gibi gücüm o kadarına yetiyor.

>   **Demo gösterilir.**

Interviewer: Bu konu hakkında birşey yapabilmek adına yaşam standardınızda değişiklik yapmayı göze alır mısınız?

Participant: Alırım. Yani şu şekilde sonuçta insan olarak biz çok rahata düşkün bir hale gelmiş durumdayız. Ne bileyim be mesela her gün duş almak isterim gibi. Bireysel olarak benim en büyük yapabileceğim şey geri dönüşüme katkı vermek onun için de zaman ayırmak lazım. Ülkedeki geri dönüşüm noktaları fazlalaştırılırsa hani en azından çöplerimi ayrıştırıp çöplerimi geri dönüşüme gönderebilirim. Ki bu batı ülkelerinde çoğunlukla yapılıyor. Yani hayatlarında bunu yapan insanlar var hayatlarından o şekilde bir taviz veriyorlar. Ha bizim ülkemizde bu hükümetin uyguladığı politikalarla da alakalı o yüzden bizim yapabileceğimiz geri dönüşüm kısıtlı. Biz ne yapabiliriz hani elimizde olan şey su kullanımına dikkat etmek, onun dışında bireysel araçlarımızı elektrikli araç tercih etmemiz olabilir gibi.

>   **Liste gösterilir.**

Interviewer: Hangi konuda katkıda bulunmak istersiniz (içinde katkıda bulunanlar var ise işaretleyiniz)?

Participant: Katkıda bulundukları – Toplu taşıma tercih etmek, Uygun yerlere yürümeyi tercih etmek, Bisiklet tercih etmek, Elektrikli scooter tercih etmek, Paylaşımlı araçlar tercih etmek, Daha az sıklıkta araç kullanmak, thal yerine yerli ürünler kullanmak. (sebze, meyve, mobilya...), Gidilecek yerlere ulaşımı karbon emisyonu yaratmayan taşıtlarla sağlamak, Enerji tasarruflu ürünlerin seçilmesi, Sahip olunan elektronik ürünü ömrünün sonuna kadar kullanmak, IoT(nesnelerin interneti) ile entegre edilerek enerji ve zaman kazanımı sağlamak, Yenisini almak yerine küçük bakımlar/tamirler ile kullanmaya devam etmek, Evlerin ısı yalıtımlarının yapılmış olması, Elektronik cihazlar gibi çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak, Plastik poşet yerine bez gibi geri dönüşebilir ve tekrar tekrar kullanılabilen poşetleri tercih etmek, Kendi mataranı, bardağını, termosunu, geri dönüşebilir ve tekrar

kullanılabilen pipetini yanında taşımak, Plastik çatal ve kaşık kullanmamak, Boş yere su açık bırakılmamalı (mesela dişleri fırçalarken, elleri yıkarken su açık bırakılmamalı.), Su tasarruflu bulaşık ve çamaşır makinaları kullanmak, Elde yıkama yapmamak, Gereksiz yere duşta çok vakit geçirmemek, Kağıt havlular yerine tekstil havlular tercih etme, Evlerin ısı yalıtımının yapılması, Evlerin uygun(optimum) sıcaklıkta olması, Bir markanın özel seri ürünü için şişe üstünde bulunan barkodu okutulan her şişe başına bir fidan dikme vaadi veriyor. bu tarz markalar yada ürünler tercih etmek, Markanın yeşil vaatleri/yaptıkları, Tarımda mevsimine ve iklimine uygun gıda tüketimi, Plastik paketli ürünler yerine açık dökme usulü ya da dönüşebilen materyalden yapılan paketlemeyi tercih etmek, Kullanılamaz durumdaki kıyafetlerin geri dönüşümünün sağlamak, Kullanılabilir durumdaki kıyafetlerin Dolap(online ikinci el pazarı) gibi uygulamalar aracılığı ile ikinci el kullanımı(satmak ya da almak), . Kullanılabilir durumdaki tekstil ürünlerinde ikinci el kullanımı(satmak yada almak), . Kullanılabilir durumdaki tekstil ürünlerinde ikinci el kullanımı(satmak yada almak), Kullanılabilir durumdaki mobilyaların ikinci el kullanımı(satmak ya da almak), Kullanılabilecek durumdaki eşyaların letgo (online ikinci el pazarı) gibi applerde satmak ya da satın almak, Kağıt kullanmak yerine bilgisayar telefon gibi elektronik ve online araçlar tercih etmek, Hem online hem manuel yapılabilecek işlemleri online olarak yapmak.(mesela banka uygulamasından faturaları ödemek. Bankaya gitmeye gerek yok.), Kağıt baskı olan fatura, kredi kartı ekstreleri gibi dijitalden de elde edilebilecek belgeleri dijital olarak talep etmek.

Kattkıda bulunmak istedikleri -- Toplu taşıma araçlarında EV tercih edilmesi, Bireysel olarak, özel araç tercihi yaparken EVs tercih edilebilir, Balkonda- şehir içinde tarım yapmayı tercih edilebilir, Oluşan gübre çiçeklere, evde tarım yapılıyorsa sebze meyvelere, park ve bahçelere dökülerek değerlendirilir, Organik atıklardan kompost yapmak. Oluşan gübre çiçeklere, evde tarım yapılıyorsa sebze meyvelere, park ve bahçelere dökülerek değerlendirilir, Fosil yakıtların kullanılmaması,

Interviewer: İklim değişikliği konusunda sizi bir tedbir alma/destek olma konusunda teşvik eden ve engelleyen faktörler nelerdir?

Participant: Teşvik eden faktörler: yangınların artması teşvik ediyor beni çünkü gözle görülebilen bir şey var burada. Kasırga gibi olayların artması özellikle bu son bir haftadır Filipinlerde olsun Amerika da olsun hortum, kasırga, tayfun tarzı şeylerin artması beni teşvik ediyor. İleride bizden daha sonra yaşayacak insanlar için daha iyi bir

dünya bırakmak isterim tabi bu da beni teşvik ediyor ama sonumuz bir yerde gelecek bence. Kaçınılmaz olanı ertelemek aslında yapılacaklar.

Engelleyen faktörler: ekonomi, hükümet politikaları engelleyebilir beni. Çünkü her yapmak istediğimiz şeyi yapamıyoruz. Katkıda bulunmak istediğim şeyler var bir sürü ama onları yapmamı sağlayacak alt yapı yok. En çok bunlar engelliyor. Onun dışında bizi çok fazla engelleyebilecek bir şey yok. Bizi başka kim veya ne engelleyebilir. Konforumdan ödün vermek istemem ama bu engellemez. İstemeye istemeye yaparsın bir şekilde.

B.4.7. Participant No 7

Age: 56

Gender: Erkek

Education: İlkokul

Occupation: emekli – müteahhit -çiftçi

Working condition: emekli – müteahhit -çiftçi

Income: 2000tl

Interview date: 21.12.2021 11:00

Interview environment: Yüz yüze

Interviewer: "Çevre/İklim değişikliği" konusunda ne düşünüyorsunuz?

Participant: Bence dünya bir felakete doğru gidiyor. Yani bu insanların dünyaya verdiği zarar yani böyle gitmesi mümkün değil. Sonu bir felaket olacak yani.

Interviewer: iklim değişikliği sizin için önemli mi? neden önemli?

Participant: anlattığım şeylerden dolayı benim için önemli bir konu.

Interviewer: İklim değişikliğinin hangi somut yönü sizi en fazla olumsuz olarak etkileyebilir?

Participant: Kuraklık mesela, bulaşıcı hastalıklar salgınlar daha doğrusu.

Interviewer: Green lifestyle kavramını daha önce duymuş muydunuz? ne düşünüyorsunuz?

Participant: Duydum ama bir bilgim yok.

Interviewer: İklim değişikliğinin engellenebilir olduğunu düşünüyor musunuz?

Participant: engellenebilir olduğunu düşünüyorum.

Interviewer: (siz ve arkadaşlarınız) Günlük hayatınızda yapacağınız birkaç ufak değişiklik ile iklim değişikliğini önleme konusunda katkıda bulunabileceğinizi düşünüyor musunuz?

Participant: Mesela tüketimi azaltmak gibi şeyler etkisinin olacağını düşünüyorum.

Interviewer: İklim değişikliğini önleme konusunda bireysel olarak yaptığınız eylemler var mı?

Participant: Mümkün olduğu kadar eşyaları atmamaya, kıyafetleri sonuna kadar kullanmaya dikkat ediyorum.

Demo gösterilir.

Interviewer: Bu konu hakkında birşey yapabilmek adına yaşam standardınızda değişiklik yapmayı göze alır mısınız?

Participant: Evet alırım.

Liste gösterilir.

Interviewer: Hangi konuda katkıda bulunmak istersiniz (içinde katkıda bulunanlar var ise işaretleyiniz)?

Participant: Katkıda bulundukları -- Toplu taşıma tercih etmek, Uygun yerlere yürümeyi tercih etmek, Gidilecek yerlere ulaşımı karbon emisyonu yaratmayan taşıtlarla sağlamak, Enerji tasarruflu ürünlerin seçilmesi, Sahip olunan elektronik ürünü ömrünün sonuna kadar kullanmak, Yenisini almak yerine küçük bakımlar/tamirler ile kullanmaya devam etmek, Evlerin ısı yalıtımlarının yapılmış olması, Evler inşa edilirken güneşin geliş açılarına göre yapılması, Plastik poşet yerine bez gibi geri dönüşebilir ve tekrar tekrar kullanılabilen poşetleri tercih etmek, Plastik çatal ve kaşık kullanmamak, Su tasarruflu bulaşık ve çamaşır makinaları kullanmak, Gereksiz yere duşta çok vakit geçirmemek, Kağıt havlular yerine tekstil havlular tercih etme, Evlerin uygun(optimum) sıcaklıkta olması, Evlerin ısı yalıtımının yapılması, Tarımda mevsimine ve iklimine uygun gıda tüketimi.

Katkıda bulunmak istedikleri -- Oluşan gübre çiçeklere, evde tarım yapılıyorsa sebze meyvelere, park ve bahçelere dökülerek değerlendirilir, Elektronik cihazlar gibi çöpleri ayrıştırarak gerekli toplama alanlarına bırakmak, Boş yere su açık bırakılmamalı, Yenilenebilir enerji kaynakları (güneş, rüzgar, biyokütle…) tercih etmek, Et gibi gıdaların yerine daha az sera gazı emisyonu üreten sebze/meyve tüketmek, Kullanılamaz durumdaki kıyafetlerin geri dönüşümünün sağlamak, Kağıt kullanmak yerine bilgisayar telefon gibi elektronik ve online araçlar tercih etmek.

Interviewer: İklim değişikliği konusunda sizi bir tedbir alma/destek olma konusunda teşvik eden ve engelleyen faktörler nelerdir?

Participant: Teşvik eden faktörler: gördüğümüz doğal felaketler, kuraklık. Yaşadığımız şeyler daha doğrusu.

Engelleyen faktörler: ekonomik durum etkiliyor. Onun dışında aklıma

APPENDIX C

SURVEY ANALYSES

C.1. Questions

Table 44. Survey Constructs and items in Turkish

Items	Questions
Gender	Cinsiyetiniz
Age	Yaşınız
Education	Eğitim durumunuz
Occupation	Mesleğiniz
Income	Aylık net geliriniz?
Marital	Medeni durumunuz?
HouseholdSize	Evde kaç kişi yaşıyorsunuz? (siz dahil)
Children	Lise ve altında beraber yaşadığınız çocuk sayısı?
Car	Arabanız var mı
Bicycle	Bisikletiniz var mı
Day_Car	İşe giderken ayda kaç gün özel araç kullanıyorsunuz?
Day_PublicT	İşe giderken ayda kaç gün toplu taşıma kullanıyorsunuz?
Day_Bicycle	İşe giderken ayda kaç gün bisiklet kullanıyorsunuz kullanıyorsunuz?
Day_Walk	İşe giderken ayda kaç gün yürüyorsunuz?
Aware1	Artan karbon salınımının dünyanın iklim dengesine zarar verdiğinin farkındayım (seller, kuraklıklar, sağlık sorunları, türlerin yok oluşu vb.)
Aware2	Araç kullanmanın çevreye olumsuz etkisinin farkındayım
Aware3	Bireysel araç yerine toplu taşıma, bisiklet, yürümek vb. tercih etmenin çevreye daha az zarar verdiğinin farkındayım
Concern1	Çevrenin giderek bozulan dengesinden endişeliyim
Concern2	Doğanın dengesi insanların müdahelesi sonucunda bozularak çevresel felaketler oluşturuyor
Compatible	Ulaşımda toplu taşıma, bisiklet, scooter, yürümek gibi daha az karbon salınımı yapan yöntemleri kullandığımda iyi bir izlenim bırakırım.
Influence_Int1	Çevremdeki tanıdığım kişilerin düşünceleri davranışlarımı etkiler

(cont. on next page)

Table 44. (cont.)

Items	Questions
Influence_Ext1	İklim değişimi konusunda uzman kişilerin çevreye duyarlı davranışlarda bulunması beni bu konuda teşvik eder/harekete geçirir.
Influence_Ext2	Siyasetçilerin çevreye duyarlı davranışlarda bulunması beni bu konuda teşvik eder.
Influence_Ext3	Sosyal medyadaki içerikler iklim değişikliği konusunda insanların harekete geçmesini teşvik eder
NormSocial1	Toplumun çoğunluğu yeşil uygulamaları hoş karşılar
NormSocial2	Toplumun çoğunluğu insanların çevreye duyarlı ürünler satın almasını bekliyor
Influence_Int2	Çevremdeki tanıdığım kişileri bireysel araç yerine toplu taşıma, bisiklet, yürüme gibi yöntemleri önermesi beni etkiler
SelfEfficacy	Bisiklet kullanabilirim
NormSocial3	Bisiklet,elektrikli scooter vb.araçları kullanarak toplumun çoğunluğunda iyi bir izlenim bırakacağımı düşünüyorum
NormSocial4	Toplu taşıma kullanırsam/tercih edersem, toplumun çoğunluğu bu davranışımı takdir eder
Responsible1	Sizce iklim değişikliği ile mücadelede en öndeki paydaş hangisidir? Tüketiciler-Devlet-Sanayi kuruluşları-Sivil toplum örgütleri-Belediyeler
Responsible2	İklim değişikliği ile mücadelede bireylerin önemli bir rolü olduğunu düşünüyorum
Responsible3	Yerel yönetimlerin sürdürülebilir taşıma konusunda önemli bir yere sahip olduğunu düşünüyorum.
Transparent1	Yetkili otoriteler çevreyi korumak adına yaptıkları uygulamaları ve sonuçları paylaşmalı
Transparent2	Çevreyi korumak adına yapılan uygulamaların sonucunu ilgili yönetim tarafından açıklanması benim için önemlidir
Infrastructure1	Bana uygun güzergah olmadığı için toplu ulaşımı tercih edemiyorum
Infrastructure2	Yeterli altyapı olmadığı için bisiklet tercih edemiyorum
Infrastructure3	Yeterli altyapı olmadığı için yürümeyi tercih edemiyorum
Incentive1	Bisiklet fiyatlarının indirimli olması bisiklet kullanmamı teşvik eder
Incentive2	Aldığım bisiklet için fidan dikilmesi manevi olarak beni teşvik eder.
Incentive3	Bisikletli olduğum için kafelerde su, kahve vb konusunda indirim sağlamaları beni teşvik eder.
Involve2	Belediyelerin, sivil toplum örgütlerinin çevreyle ilgili alacakları kararlarda söz sahibi olmak isterim.
Regulation1	Çevreyi korumak için insanları bir şeyler yapmak zorunda bırakacak daha fazla devlet düzenlemesine ihtiyaç var
Regulation2	Devletin çevre konusundaki düzenlemeleri ile ilgili yeteri kadar denetlemesi yok
Safety1	Trafikte bisiklet kullanmanın güvenli olduğunu düşünüyorum

Table 44. (cont.)

Items	Questions
Safety2	Trafikte bisiklet kullanmaktan çekinirim
Security	Bisikletimin çalınma ihtimali beni endişelendirir
Cost1	Bisikletin satın alma maliyeti bisiklet kullanmama engel oluşturur
Cost2	Bisikletin bakım maliyeti bisiklet kullanmama engel oluşrurur.
Cost3	Bisiklet kullanırken sağladığım maddi kazanç beni bisiklet kulanmaya teşvik eder (benzin tasarrufu, bilet tasarrufu vb).
EoU1	Çevreci davranış sergileyerek şu an ki konforumdan vazgeçmek istemiyorum
EoU2	İşe giderken hava şartlarından dolayı (yağmur, sıcak vb) bisiklet kullanmak zordur
EoU3	İşe giderken yorucu olduğu için bisiklet kullanmak istemiyorum
EoU4	Bisiklette bilgisayar, cep telefonu vb taşımanın zorluğu benim işe giderken bisiklet kullanmamı engeller
EoU5	Hızlı akan trafikte bisiklet kullanmamını zorluğu bisiklet kullanmamı engeller
EoU6	Bisikletin bakımı zordur
EoU7	Bisikletimi bir yere park ettiğimde zarar görebileceğini düşünüyorum
Useful1	15 sene içerisinde ikilim krizinin negatif etkilerinin yaşanmaması için çevreye duyarlı davranmak akıllıcadır
Useful2	Bizden sonraki neslin, (çocuklarımın, torunlarımın ..) iklim krizinin negatif etkilerini yaşamaması için çevreye duyarlı davranmak akıllıcadır
Useful3	Trafiğin yoğun olduğu zamanlarda bisiklet, elektrikli scooter vb. kullanmak zamandan tasarruf sağlar
Useful4	Yürümenin diğer ulaşım çeşitlerine göre daha yavaş olduğunu düşünüyorum
Useful5	Özel (bireysel) araç kullanmak konforludur
Useful6	Motorlu taşıt kullanmak yerine bisiklete binmek ve yürümek sağlık açısından yararlıdır
Useful7	Yürümenin beni rahatlattığını düşünüyorum
Useful8	Yürümek sağlığım için yararlıdır
Attitude1	İklim krizini engellemek adına bireysel olarak bir şeyler yapmaya sıcak bakıyorum
Attitude2	Bireysel motorlu araçları az sıklıkta kullanmaya sıcak bakıyorum
Attitude3	Toplu taşıma kullanmaya sıcak bakıyorum
Attitude4	Uygun yerlere yürümeye sıcak bakıyorum
Use1	İklim krizini engellemek adına bireysel olarak bir şeyler yapıyorum
Use2	Bireysel motorlu araçları az sıklıkta kullanıyorum
Use3	Toplu taşımayı kullanıyorum
Use4	Uygun yerlere yürüyorum
Use5	Ulaşım aracı olarak bisiklet, elektrikli scooter vb kullanıyorum

Table 44. (cont.)

Items	Questions
Innovate1	Kullanılabilirlik ve güvenlik açısından mikromobilite konusunda inovasyonlar yapılmalı.
Innovate2	Kullanılabilirlik ve güvenlik açısından mikromobilite konusunda girişimler teşvik edilmelidir.
Reaction1	Karbon emisyonu oluşturan şirketleri boykot edeceğim
Reaction2	İklim değişikliği protestolarına ve yürüyüşlerine katılacağım
SPattern	İklim krizini önleme açısından sizin için en önemli 3 konuyu seçiniz--.1- Elektrikli otomobillerin (araçların) kullanımı,2- Ulaşımda bisiklet, scooter yürümek gibi araçların tercih edilmesi, 3- Taşıma faaliyetlerini en aza indirmek, yerel alışveriş yapmak, çok fazla lojistik gerektirmeyecek şekilde tercihlerde bulunmak, 4- Evde ya da günlük hayatta kullandığımız elektrikli aletleri enerji tasarruflu tercih etmek, 5- Ev alırken ya da kiralarken evleri daha az küresel ısınmaya neden olacak şekilde seçmek,6- Balkon-şehir içi tarım ile lojistik haraketliliği en aza indirmek, 7- Atık dönüşümünün sağlanması, 8- Plastik kullanımının azaltılması, 9- Evlerde su kullanımının yönetilerek israftan kaçınılması, 10- Atıkları oluşmadan engellemeye yönelik hareket etmek,11- Evlerde kullanılan enerji çeşidinin yenilenebilir enerji olması, 12- Çevresel sürdürülebilirliği destekleyen markaları tercih etmek,13- Kullanılan eşyaların tekrar kullanımı (ikinci el pazarları –alış-satış),14- Sürdürülebilir kimyasallar (doğaya zarar vermeyen deterjanlar gibi), 15- Dijitalleşme: Kağıt kullanmak yerine bilgisayar telefon gibi elektronik ve online araçlar tercih etmek.

C.2. Correlation Results Full List

Table 45. Correlation Results

		EoU	Useful	Attitude	Use
Aware1	Pearson Correlation	0.021	0.252	0.208	0.005
	Sig. (2-tailed)	0.725	0	0	0.933
	N	296	296	296	296
Aware2	Pearson Correlation	-0.023	0.324	0.406	0.219
	Sig. (2-tailed)	0.688	0	0	0
	N	296	296	296	296

Table 45. (cont.)

		EoU	Useful	Attitude	Use
Aware3	Pearson Correlation	0.044	0.38	0.306	0.208
	Sig. (2-tailed)	0.455	0	0	0
	N	296	296	296	296
Concern1	Pearson Correlation	0.092	0.428	0.356	0.224
	Sig. (2-tailed)	0.116	0	0	0
	N	296	296	296	296
Concern2	Pearson Correlation	0.11	0.377	0.257	0.19
	Sig. (2-tailed)	0.058	0	0	0.001
	N	296	296	296	296
Compatible	Pearson Correlation	-0.042	0.406	0.409	0.31
	Sig. (2-tailed)	0.467	0	0	0
	N	296	296	296	296
Influence_Int1	Pearson Correlation	0.126	0.117	0.101	0.183
	Sig. (2-tailed)	0.03	0.043	0.081	0.002
	N	296	296	296	296
Influence_Int2	Pearson Correlation	0.098	0.406	0.474	0.352
	Sig. (2-tailed)	0.093	0	0	0
	N	296	296	296	296
Influence_Ext1	Pearson Correlation	-0.037	0.518	0.497	0.35
	Sig. (2-tailed)	0.521	0	0	0
	N	296	296	296	296
Influence_Ext2	Pearson Correlation	0.093	0.31	0.29	0.22
	Sig. (2-tailed)	0.11	0	0	0
	N	296	296	296	296
Influence_Ext3	Pearson Correlation	0.018	0.394	0.383	0.251
	Sig. (2-tailed)	0,764	0	0	0
	N	296	296	296	296

Table 45. (cont.)

		EoU	Useful	Attitude	Use
NormSocial1	Pearson Correlation	0.114	0.266	0.168	0.187
	Sig. (2-tailed)	0.05	0	0.004	0.001
	N	296	296	296	296
NormSocial2	Pearson Correlation	0.147	0.164	0.176	0.209
	Sig. (2-tailed)	0.011	0.005	0.002	0
	N	296	296	296	296
NormSocial3	Pearson Correlation	-0.02	0.39	0.4	0.367
	Sig. (2-tailed)	0.731	0	0	0
	N	296	296	296	296
NormSocial4	Pearson Correlation	0.01	0.249	0.264	0.307
	Sig. (2-tailed)	0.858	0	0	0
	N	296	296	296	296
SelfEfficacy	Pearson Correlation	-0.071	0.157	0.184	0.251
	Sig. (2-tailed)	0.225	0.007	0.001	0
	N	296	296	296	296
Responsible1	Pearson Correlation	-0.12	-0.059	-0.07	-0.076
	Sig. (2-tailed)	0.038	0.311	0.23	0.194
	N	296	296	296	296
Responsible2	Pearson Correlation	0.052	0.482	0.403	0.217
	Sig. (2-tailed)	0.375	0	0	0
	N	296	296	296	296
Responsible3	Pearson Correlation	0.071	0.374	0.392	0.227
	Sig. (2-tailed)	0.222	0	0	0
	N	296	296	296	296
Transparent1	Pearson Correlation	0.083	0.485	0.425	0.276
	Sig. (2-tailed)	0.156	0	0	0
	N	296	296	296	296
Transparent2	Pearson Correlation	0.133	0.481	0.399	0.282

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Table 45. (cont.)

		EoU	Useful	Attitude	Use
	Sig. (2-tailed)	0.022	0	0	0
	N	296	296	296	296
Infrastructure1	Pearson Correlation	0.101	0.004	-0.031	-0.173
	Sig. (2-tailed)	0.084	0.949	0.591	0.003
	N	296	296	296	296
Infrastructure2	Pearson Correlation	0.246	0.091	0.121	0.06
	Sig. (2-tailed)	0	0.116	0.037	0.307
	N	296	296	296	296
Infrastructure3	Pearson Correlation	0.231	0.039	0.061	0.005
	Sig. (2-tailed)	0	0.5	0.296	0.934
	N	296	296	296	296
Incentive1	Pearson Correlation	0.123	0.275	0.236	0.224
	Sig. (2-tailed)	0.034	0	0	0
	N	296	296	296	296
Incentive2	Pearson Correlation	0.09	0.355	0.329	0.267
	Sig. (2-tailed)	0.121	0	0	0
	N	296	296	296	296
Incentive3	Pearson Correlation	0.165	0.293	0.274	0.295
	Sig. (2-tailed)	0.004	0	0	0
	N	296	296	296	296
Involve1	Pearson Correlation	0.034	0.374	0.374	0.275
	Sig. (2-tailed)	0.564	0	0	0
	N	296	296	296	296
Involve2	Pearson Correlation	-0.022	0.341	0.378	0.295
	Sig. (2-tailed)	0.712	0	0	0
	N	296	296	296	296
Regulation1	Pearson Correlation	0.148	0.472	0.403	0.211
	Sig. (2-tailed)	0.011	0	0	0
	N	296	296	296	296

Table 45. (cont.)

		EoU	Useful	Attitude	Use
Regulation2	Pearson Correlation	0.126	0.387	0.341	0.178
	Sig. (2-tailed)	0.03	0	0	0.002
	N	296	296	296	296
Safety1	Pearson Correlation	0.133	0.052	0.072	0.17
	Sig. (2-tailed)	0.022	0.372	0.215	0.003
	N	296	296	296	296
Safety2	Pearson Correlation	-0.313	-0.214	-0.231	-0.074
	Sig. (2-tailed)	0	0	0	0.202
	N	296	296	296	296
Security	Pearson Correlation	0.312	0.118	0.124	0.161
	Sig. (2-tailed)	0	0.043	0.033	0.006
	N	296	296	296	296
Cost1	Pearson Correlation	0.267	0.125	0.163	0.21
	Sig. (2-tailed)	0	0.031	0.005	0
	N	296	296	296	296
Cost2	Pearson Correlation	0.411	0.026	0.085	0.201
	Sig. (2-tailed)	0	0.659	0.146	0.001
	N	296	296	296	296
Cost3	Pearson Correlation	-0.132	-0.346	-0.338	-0.229
	Sig. (2-tailed)	0.023	0	0	0
	N	296	296	296	296
EoU1	Pearson Correlation	0.549	-0.229	-0.263	-0.18
	Sig. (2-tailed)	0	0	0	0.002
	N	296	296	296	296
EoU2	Pearson Correlation	0.569	0.102	0.135	0.017
	Sig. (2-tailed)	0	0.081	0.02	0.777
	N	296	296	296	296
EoU3	Pearson Correlation	0.732	-0.118	-0.061	-0.099
	Sig. (2-tailed)	0	0.042	0.293	0.09
	N	296	296	296	296

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Table 45 (cont.)

		EoU	Useful	Attitude	Use
EoU4	Pearson Correlation	0.757	-0.076	-0.065	-0.045
	Sig. (2-tailed)	0	0.192	0.268	0.442
	N	296	296	296	296
EoU5	Pearson Correlation	0.493	0.135	0.136	-0.018
	Sig. (2-tailed)	0	0.02	0.019	0.761
	N	296	296	296	296
EoU6	Pearson Correlation	0.595	-0.07	0.007	0.12
	Sig. (2-tailed)	0	0.23	0.901	0.039
	N	296	296	296	296
EoU7	Pearson Correlation	0.531	0.053	0.141	0.112
	Sig. (2-tailed)	0	0.368	0.016	0.054
	N	296	296	296	296
Useful1	Pearson Correlation	0.143	0.709	0.478	0.2
	Sig. (2-tailed)	0.014	0	0	0.001
	N	296	296	296	296
Useful2	Pearson Correlation	0.141	0.671	0.49	0.218
	Sig. (2-tailed)	0.015	0	0	0
	N	296	296	296	296
Useful3	Pearson Correlation	0.023	0.694	0.441	0.293
	Sig. (2-tailed)	0.697	0	0	0
	N	296	296	296	296
Useful4	Pearson Correlation	-0.335	-0.06	-0.091	0.028
	Sig. (2-tailed)	0	0.303	0.12	0.636
	N	296	296	296	296
Useful5	Pearson Correlation	-0.357	0.13	-0.021	0.169
	Sig. (2-tailed)	0	0.026	0.718	0.004
	N	296	296	296	296
Useful6	Pearson Correlation	0.019	0.712	0.523	0.326

Table 45. (cont.)

		EoU	Useful	Attitude	Use
	Sig. (2-tailed)	0.747	0	0	0
	N	296	296	296	296
Useful7	Pearson Correlation	-0.099	0.724	0.599	0.399
	Sig. (2-tailed)	0.088	0	0	0
	N	296	296	296	296
Useful8	Pearson Correlation	0.05	0.736	0.56	0.262
	Sig. (2-tailed)	0.393	0	0	0
	N	296	296	296	296
Attitude1	Pearson Correlation	0.029	0.638	0.748	0.377
	Sig. (2-tailed)	0.623	0	0	0
	N	296	296	296	296
Attitude2	Pearson Correlation	0.014	0.487	0.812	0.426
	Sig. (2-tailed)	0.806	0	0	0
	N	296	296	296	296
Attitude3	Pearson Correlation	-0.053	0.421	0.799	0.577
	Sig. (2-tailed)	0.361	0	0	0
	N	296	296	296	296
Attitude4	Pearson Correlation	-0.009	0.652	0.711	0.455
	Sig. (2-tailed)	0.879	0	0	0
	N	296	296	296	296
Aware	Pearson Correlation	0.016	0.391	0.38	0.182
	Sig. (2-tailed)	0.79	0	0	0.002
	N	296	296	296	296
Concern	Pearson Correlation	0.11	0.437	0.332	0.224
	Sig. (2-tailed)	0.059	0	0	0
	N	296	296	296	296
Influence_Int	Pearson Correlation	0.132	0.306	0.336	0.314
	Sig. (2-tailed)	0.023	0	0	0
	N	296	296	296	296

Table 45. (cont.)

		EoU	Useful	Attitude	Use
Influence_Ext	Pearson Correlation	0.034	0.469	0.449	0.316
	Sig. (2-tailed)	0.563	0	0	0
	N	296	296	296	296
NormSocial	Pearson Correlation	0.083	0.353	0.335	0.357
	Sig. (2-tailed)	0.155	0	0	0
	N	296	296	296	296
Responsible	Pearson Correlation	-0.003	0.427	0.386	0.194
	Sig. (2-tailed)	0.953	0	0	0.001
	N	296	296	296	296
Transparent	Pearson Correlation	0.119	0.531	0.453	0.307
	Sig. (2-tailed)	0.041	0	0	0
	N	296	296	296	296
Infrastructure	Pearson Correlation	0.242	0.055	0.06	-0.052
	Sig. (2-tailed)	0	0.345	0.3	0.372
	N	296	296	296	296
Incentive	Pearson Correlation	0.157	0.379	0.344	0.323
	Sig. (2-tailed)	0.007	0	0	0
	N	296	296	296	296
Involve	Pearson Correlation	0.007	0.392	0.412	0.312
	Sig. (2-tailed)	0.906	0	0	0
	N	296	296	296	296
Regulation	Pearson Correlation	0.149	0.467	0.404	0.211
	Sig. (2-tailed)	0.01	0	0	0
	N	296	296	296	296
Safety	Pearson Correlation	-0.114	-0.104	-0.101	0.064
	Sig. (2-tailed)	0.049	0.074	0.082	0.273
	N	296	296	296	296
Innovate	Pearson Correlation	0.021	0.561	0.555	0.392
	Sig. (2-tailed)	0.72	0	0	0
	N	296	296	296	296

Table 45. (cont.)

		EoU	Useful	Attitude	Use
Reaction	Pearson Correlation	-0.028	0.321	0.379	0.378
	Sig. (2-tailed)	0.63	0	0	0
	N	296	296	296	296
EoU	Pearson Correlation	1	-0.063	-0.008	-0.03
	Sig. (2-tailed)	0	0.282	0.885	0.61
	N	296	296	296	296
Useful	Pearson Correlation	-0.063	1	0.694	0.447
	Sig. (2-tailed)	0.282	0	0	0
	N	296	296	296	296
Attitude	Pearson Correlation	-0.008	0.694	1	0.6
	Sig. (2-tailed)	0.885	0	0	0
	N	296	296	296	296

C.3. Profile of Respondents Full List

Table 46. Profile of Respondents

Range	Frequency	Percent	Valid Percent	Cumulative Percent
Age				
15-25	55	18.6	18.6	18.6
26-35	106	35.8	35.8	54.4
36-45	66	22.3	22.3	76.7
46-55	52	17.6	17.6	94.3
56-65	13	4.4	4.4	98.6
66 or above	4	1.4	1.4	100
Gender				
Female	184	62.2	62.2	62.2
Male	109	36.8	36.8	99
Not specify	3	1	1	100
Education				
Primary school	11	3.7	3.7	3.7
High school	42	14.2	14.2	17.9
Associate Degree	26	8.8	8.8	26.7

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Table 46. (cont.)

Range	Frequency	Percent	Valid Percent	Cumulative Percent
Undergraduate	170	57.4	57.4	84.1
Graduate	40	13.5	13.5	97.6
PhD	7	2.4	2.4	100
Income				
8.500 or below	49	16.6	16.6	16.6
8.501-10.500	51	17.2	17.2	33.8
10.501-15.000	73	24.7	24.7	58.4
15.001-25.000	89	30.1	30.1	88.5
25.001-35.000	16	5.4	5.4	93.9
35.001 or above	18	6.1	6.1	100
HouseholdSize				
1	37	12.5	12.5	12.5
2	72	24.3	24.4	36.9
3	90	30.4	30.5	67.5
4	74	25	25.1	92.5
5	13	4.4	4.4	96.9
6	8	2.7	2.7	99.7
9	1	0.3	0.3	100
Children				
0	187	63.2	63.4	63.4
1	69	23.3	23.4	86.8
2	33	11.1	11.2	98
3	4	1.4	1.4	99.3
4	2	0.7	0.7	100
Marital				
Married	136	45.9	45.9	45.9
Single	160	54.1	54.1	100
Car				
Not Have	133	44.9	44.9	44.9
Have	163	55.1	55.1	100
Bicycle				
Not Have	206	69.6	69.6	69.6
Have	90	30.4	30.4	100
Day_Car				
0	146	49.3	49.3	49.3
1	6	2	2	51.4
2	12	4.1	4.1	55.4
3	6	2	2	57.4
4	5	1.7	1.7	59.1
5	19	6.4	6.4	65.5
6	6	2	2	67.6
7	1	0.3	0.3	67.9

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Table 46. (cont.)

Range	Frequency	Percent	Valid Percent	Cumulative Percent
8	2	0.7	0.7	68.6
9	1	0.3	0.3	68.9
10	9	3	3	72
12	2	0.7	0.7	72.6
13	1	0.3	0.3	73
14	1	0.3	0.3	73.3
15	6	2	2	75.3
16	3	1	1	76.4
17	2	0.7	0.7	77
18	1	0.3	0.3	77.4
20	26	8.8	8.8	86.1
22	3	1	1	87.2
24	23	7.8	7.8	94.9
25	1	0.3	0.3	95.3
26	6	2	2	97.3
28	1	0.3	0.3	97.6
29	1	0.3	0.3	98
30	6	2	2	100
Day_PublicT				
0	126	42.6	43	43
1	6	2	2	45.1
2	14	4.7	4.8	49.8
3	12	4.1	4.1	53.9
4	4	1.4	1.4	55.3
5	11	3.7	3.8	59
6	3	1	1	60.1
7	2	0.7	0.7	60.8
8	4	1.4	1.4	62.1
9	1	0.3	0.3	62.5
10	11	3.7	3.8	66.2
12	3	1	1	67.2
14	1	0.3	0.3	67.6
15	4	1.4	1.4	68.9
16	1	0.3	0.3	69.3
17	1	0.3	0.3	69.6
18	3	1	1	70.6
20	39	13.2	13.3	84
21	1	0.3	0.3	84.3
22	6	2	2	86.3
23	2	0.7	0.7	87
24	21	7.1	7.2	94.2
25	8	2.7	2.7	96.9
26	3	1	1	98

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Table 46. (cont.)

Range	Frequency	Percent	Valid Percent	Cumulative Percent
28	1	0.3	0.3	98.3
30	5	1.7	1.7	100
Day_Bicycle				
0	287	97	97	97
1	1	0.3	0.3	97.3
2	1	0.3	0.3	97.6
3	1	0.3	0.3	98
5	1	0.3	0.3	98.3
10	1	0.3	0.3	98.6
18	1	0.3	0.3	99
20	1	0.3	0.3	99.3
24	1	0.3	0.3	99.7
26	1	0.3	0.3	100
Day_Walk				
0	176	59.5	60.5	60.5
1	3	1	1	61.5
2	6	2	2.1	63.6
3	6	2	2.1	65.6
4	2	0.7	0.7	66.3
5	11	3.7	3.8	70.1
6	3	1	1	71.1
7	1	0.3	0.3	71.5
8	1	0.3	0.3	71.8
10	11	3.7	3.8	75.6
15	6	2	2.1	77.7
16	2	0.7	0.7	78.4
18	2	0.7	0.7	79
20	15	5.1	5.2	84.2
21	3	1	1	85.2
22	5	1.7	1.7	86.9
24	16	5.4	5.5	92.4
25	4	1.4	1.4	93.8
26	6	2	2.1	95.9
29	1	0.3	0.3	96.2
30	10	3.4	3.4	99.7
31	1	0.3	0.3	100

C.4. ANOVA Results

Table 47. ANOVA Result for Typology 1 Cluster 1

Variable	F	Sig.	Rule-based	Unattached	Concerned
Aware	61.498	0.000	4.48	2.50	4.87
Concern	91.875	0.000	4.45	2.17	4.96
Influence_Int	64.939	0.000	2.50	1.50	3.71
Influence_Ext	186.936	0.000	3.35	1.22	4.66
NormSocial	72.9	0.000	2.90	1.42	3.91
Transparent	80.1	0.000	4.27	2.08	4.82
Infrastructure	6.056	0.003	3.17	1.44	3.24
Incentive	64.644	0.000	3.40	1.39	4.36
Involve	75.224	0.000	3.14	2.17	4.33
Regulation	65.469	0.000	4.45	2.00	4.83
EoU	1.444	0.238	3.30	2.76	3.32
Useful	51.734	0.000	4.36	3.03	4.79
Attitude	34.585	0.000	3.92	2.88	4.52
Aware1	13.161	0.000	4.62	3.50	4.87
Aware2	36.465	0.000	4.27	2.67	4.84
Aware3	89.525	0.000	4.56	1.33	4.91
Concern1	82.57	0.000	4.51	2.00	4.97
Concern2	62.013	0.000	4.39	2.33	4.94
Compatible	121.61	0.000	3.35	1.50	4.79
Influence_Int1	21.65	0.000	2.27	1.83	3.23
Influence_Int2	77.68	0.000	2.74	1.17	4.20
Influence_Ext1	117.25	0.000	3.48	1.33	4.75
Influence_Ext2	80.61	0.000	3.12	1.17	4.54
Influence_Ext3	118.06	0.000	3.47	1.17	4.69
NormSocial1	20.16	0.000	3.48	1.67	4.09
NormSocial2	22.35	0.000	2.73	1.33	3.58
NormSocial3	91.79	0.000	2.99	1.33	4.44
NormSocial4	31.42	0.000	2.38	1.33	3.51
SelfEfficacy	9.47	0.000	3.78	2.67	4.33
Responsible1	2.12	0.122	2.19	3.17	2.22
Responsible2	48.85	0.000	3.89	1.33	4.64
Responsible3	36.31	0.000	3.84	2.17	4.56
Transparent1	48.18	0.000	4.38	2.33	4.84
Transparent2	75.41	0.000	4.17	1.83	4.80
Infrastructure1	1.97	0.142	2.87	1.50	2.90
Infrastructure2	6.82	0.001	3.73	1.50	3.78

Table 47. Table 47. ANOVA Result for Typology 1 Cluster 1 **(cont.)**

Variable	F	Sig.	Rule-based	Unattached	Concerned
Infrastructure3	3.35	0.036	2.90	1.33	**3.03**
Incentive1	23.35	0.000	3.38	1.17	**4.14**
Incentive2	46.01	0.000	3.40	1.67	**4.46**
Incentive3	47.54	0.000	3.41	1.33	**4.47**
Involve1	69.44	0.000	3.02	2.00	**4.31**
Involve2	47.85	0.000	3.26	2.33	**4.36**
Regulation1	77.53	0.000	4.35	1.83	**4.90**
Regulation2	36.23	0.000	4.55	2.17	**4.76**
Safety1	4.30	0.015	1.64	1.17	**2.04**
Safety2	5.89	0.003	1.86	**3.50**	1.73
Security	2.96	0.053	**3.91**	2.50	3.89
Cost1	5.10	0.007	3.07	2.00	**3.47**
Cost2	3.62	0.028	2.35	1.33	**2.67**
Cost3	35.90	0.000	3.01	**4.67**	2.02
EoU1	3.93	0.021	2.81	**2.83**	2.36
EoU2	1.63	0.198	4.14	3.33	**4.15**
EoU3	0.10	0.908	3.17	3.00	**3.22**
EoU4	1.11	0.331	3.04	2.33	**3.18**
EoU5	6.69	0.001	4.14	2.67	**4.34**
EoU6	0.28	0.754	2.10	**2.33**	2.20
EoU7	1.98	0.140	3.68	2.83	**3.83**
Useful1	17.51	0.000	4.46	3.67	**4.85**
Useful2	13.67	0.000	4.50	4.00	**4.88**
Useful3	27.52	0.000	4.04	2.50	**4.63**
Useful5	0.18	0.836	1.76	**2.00**	1.81
Useful6	58.26	0.000	4.54	2.33	**4.86**
Useful7	21.79	0.000	4.03	2.83	**4.66**
Useful8	36.43	0.000	4.58	2.83	**4.89**
Attitude1	26.13	0.000	4.07	2.67	**4.64**
Attitude2	12.74	0.000	3.65	3.17	**4.28**
Attitude3	16.41	0.000	3.60	3.50	**4.37**
Attitude4	41.95	0.000	4.36	2.17	**4.80**

Table 48. ANOVA Result for Typology 1 Cluster 2

Variable	F	Sig.	Irrelevant	Risk-taker	Undifferentiated	Security-minded
Aware	39.117	0	2.33	4.85	4.45	4.85
Concern	75.663	0	1.60	4.87	4.43	4.95
Influence_Int	46.707	0	1.40	3.37	2.40	3.80
Influence_Ext	117.138	0	1.00	4.36	3.27	4.69
NormSocial	43.759	0	1.10	3.63	2.88	3.93
Transparent	47.036	0	2.10	4.53	4.26	4.89
Infrastructure	4.098	0.007	1.27	3.25	3.15	3.22
Incentive	41.249	0	1.27	3.79	3.43	4.49
Involve	46.923	0	2.00	4.00	3.08	4.38
Regulation	32.963	0	2.20	4.63	4.41	4.89
EoU	6.83	0	2.77	2.99	3.32	3.48
Useful	31.338	0	3.03	4.64	4.33	4.83
Attitude	23.011	0	2.85	4.32	3.88	4.57
Aware1	8.69	0.000	3.40	4.82	4.59	4.87
Aware2	22.00	0.000	2.60	4.81	4.23	4.80
Aware3	60.03	0.000	1.00	4.93	4.52	4.87
Concern1	67.51	0.000	1.40	4.87	4.51	4.97
Concern2	49.80	0.000	1.80	4.87	4.35	4.94
Compatible	77.09	0.000	1.00	4.60	3.27	4.74
Influence_Int1	15.91	0.000	1.80	2.90	2.19	3.32
Influence_Int2	54.79	0.000	1.00	3.84	2.61	4.28
Influence_Ext1	83.81	0.000	1.00	4.57	3.35	4.75
Influence_Ext2	52.79	0.000	1.00	4.19	3.01	4.60
Influence_Ext3	66.04	0.000	1.00	4.32	3.44	4.73
NormSocial1	13.79	0.000	1.40	3.93	3.44	4.12
NormSocial2	14.92	0.000	1.00	3.43	2.69	3.58
NormSocial3	52.15	0.000	1.00	3.91	3.00	4.51
NormSocial4	17.29	0.000	1.00	3.26	2.39	3.49
SelfEfficacy	6.37	0.000	2.20	3.90	3.93	4.38
Responsible1	2.88	0.036	3.40	2.40	2.22	2.09
Responsible2	33.50	0.000	1.20	4.41	3.80	4.71
Responsible3	21.91	0.000	2.00	4.21	3.86	4.62
Transparent1	28.57	0.000	2.40	4.56	4.36	4.92
Transparent2	44.75	0.000	1.80	4.50	4.15	4.87
Infrastructure1	1.64	0.181	1.40	3.07	2.85	2.80
Infrastructure2	4.86	0.003	1.20	3.75	3.73	3.78
Infrastructure3	2.39	0.069	1.20	2.94	2.86	3.09

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Table 48 (cont.)

Variable	F	Sig.	Irrelevant	Risk-taker	Undifferentiated	Security-minded
Incentive1	23.04	0.000	1.00	3.29	3.47	4.41
Incentive2	27.82	0.000	1.80	4.10	3.33	4.53
Incentive3	26.38	0.000	1.00	3.99	3.48	4.53
Involve1	42.86	0.000	1.80	3.99	2.96	4.34
Involve2	30.57	0.000	2.20	4.01	3.21	4.43
Regulation1	40.29	0.000	2	4.66	4.31	4.96
Regulation2	17.71	0.000	2.40	4.59	4.51	4.83
Safety1	3.26	0.022	1.00	1.97	1.59	2.06
Safety2	12.23	0.000	3.40	2.41	1.79	1.46
Security	190.31	0.000	2.60	1.87	4.23	4.72
Cost1	20.33	0.000	1.80	2.41	3.20	3.89
Cost2	7.71	0.000	1.00	2.06	2.41	2.92
Cost3	23.18	0.000	4.80	2.60	2.97	1.89
EoU1	2.19	0.089	3.20	2.32	2.78	2.44
EoU2	2.55	0.056	3.40	3.90	4.15	4.28
EoU3	0.43	0.730	3.00	3.10	3.13	3.31
EoU4	2.60	0.053	2.20	2.79	3.07	3.33
EoU5	7.72	0.000	2.60	3.94	4.15	4.51
EoU6	0.89	0.444	2.20	1.99	2.13	2.28
EoU7	20.83	0.000	2.80	2.85	3.81	4.23
Useful1	9.58	0.000	3.80	4.66	4.46	4.89
Useful2	7.97	0.000	4.20	4.71	4.49	4.91
Useful3	15.56	0.000	2.40	4.51	4.03	4.61
Useful5	0.16	0.925	1.80	1.85	1.82	1.75
Useful6	37.37	0.000	2.20	4.79	4.49	4.87
Useful7	16.11	0.000	2.80	4.46	3.95	4.73
Useful8	23.72	0.000	2.80	4.74	4.54	4.94
Attitude1	17.46	0.000	2.60	4.46	4.02	4.69
Attitude2	8.52	0.000	3.20	4.03	3.61	4.34
Attitude3	10.48	0.000	3.60	4.09	3.57	4.43
Attitude4	28.99	0.000	2.00	4.71	4.29	4.83

Table 49. ANOVA Result for Typology 2 Cluster 1

Variable	F	Sig.	Non-other-orianted	Non-focused-security/rik-taker	All-relevant
Aware	24.751	0	4.30	**4.92**	4.81
Concern	31.327	0	4.27	**4.93**	4.90
Influence_Int	53.67	0	2.34	3.44	**3,68**
Influence_Ext	113.629	0	3.11	4.42	**4.60**
NormSocial	60.094	0	2.69	3.69	**3.90**
Transparent	43.932	0	4.06	4.57	**4.89**
Infrastructure	0.632	0.532	3.07	**3.30**	3.18
Incentive	50.567	0	3.19	3.91	**4.45**
Involve	62.61	0	2.97	4.09	**4.29**
Regulation	27.369	0	4.21	4.66	**4.90**
EoU	7.971	0	3.27	3.01	**3.47**
Useful	56.121	0	4.13	4.71	**4.85**
Attitude	54.407	0	3.65	4.40	**4.60**
Aware1	6.56	0.002	4.52	**4.85**	**4.85**
Aware2	28.01	0.000	4.08	**4.93**	4.76
Aware3	16.44	0.000	4.32	**4.99**	4.82
Concern1	25.06	0.000	4.31	**4.93**	**4.93**
Concern2	26.22	0.000	4.23	**4.93**	4.87
Compatible	101.97	0.000	3.05	**4.73**	4.65
Influence_Int1	16.87	0.000	2.20	2.96	**3.20**
Influence_Int2	67.78	0.000	2.48	3.93	**4.16**
Influence_Ext1	97.17	0.000	3.16	4.63	**4.68**
Influence_Ext2	52.68	0.000	2.92	4.22	**4.47**
Influence_Ext3	67.45	0.000	3.26	4.40	**4.65**
NormSocial1	15.12	0.000	3.26	3.97	**4.10**
NormSocial2	15.83	0.000	2.59	3.48	**3.51**
NormSocial3	92.96	0.000	2.70	3.99	**4.51**
NormSocial4	26.53	0.000	2.22	3.33	**3.46**
SelfEfficacy	9.73	0.000	3.69	3.91	**4.44**
Responsible1	1.82	0.164	2.25	**2.43**	2.11
Responsible2	37.60	0.000	3.56	4.45	**4.71**
Responsible3	27.18	0.000	3.66	4.33	**4.59**
Transparent1	27.77	0.000	4.18	4.60	**4.92**
Transparent2	42.48	0.000	3.94	4.55	**4.85**
Infrastructure1	1.35	0.262	2.83	**3.15**	2.74
Infrastructure2	0.60	0.549	3.57	**3.78**	**3.78**

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Table 49. (cont.)

Variable	F	Sig.	Non-other-orianted	Non-focused-security/rik-taker	All-relevant
Infrastructure3	0.48	0.617	2.82	2.97	**3.03**
Incentive1	25.23	0.000	3.20	3.42	**4.37**
Incentive2	41.30	0.000	3.14	4.24	**4.46**
Incentive3	31.56	0.000	3.24	4.06	**4.50**
Involve1	52.79	0.000	2.87	4.07	**4.23**
Involve2	45.11	0.000	3.08	4.10	**4.36**
Regulation1	36.53	0.000	4.11	4.72	**4.95**
Regulation2	13.12	0.000	4.31	4.60	**4.86**
Safety1	2.98	0.052	1.61	1.88	**2.04**
Safety2	9.24	0.000	1.95	**2.27**	1.51
Security	224.36	0.000	3.92	1.97	**4.77**
Cost1	21.60	0.000	3.05	2.54	**3.82**
Cost2	7.23	0.001	2.37	2.07	**2.85**
Cost3	29.98	0.000	**3.17**	2.49	1.94
EoU1	7.04	0.001	**2.96**	2.22	2.40
EoU2	2.92	0.055	4.03	3.94	**4.29**
EoU3	0.87	0.421	3.12	3.06	**3.32**
EoU4	2.25	0.108	3.01	2.85	**3.29**
EoU5	5.39	0.005	3.98	4.10	**4.46**
EoU6	1.25	0.288	2.13	1.99	**2.27**
EoU7	29.34	0.000	3.65	2.90	**4.25**
Useful1	29.56	0.000	4.25	4.76	**4.93**
Useful2	24.98	0.000	4.32	4.82	**4.93**
Useful3	25.52	0.000	3.81	4.58	**4.63**
Useful5	0.60	0.548	1.86	**1.87**	1.72
Useful6	28.84	0.000	4.27	4.85	**4.89**
Useful7	29.41	0.000	3.76	4.49	**4.75**
Useful8	21.57	0.000	4.38	4.78	**4.95**
Attitude1	30.69	0.000	3.81	4.54	**4.70**
Attitude2	26.30	0.000	3.37	4.12	**4.40**
Attitude3	25.02	0.000	3.40	4.21	**4.43**
Attitude4	33.90	0.000	4.03	4.75	**4.87**

Table 50. ANOVA Result for Typology 2 Cluster 2

Variable	F	Sig.	Neutral-Impartial	Autonomous Advocates	Progressive Prioritizers	Comprehensive
Aware	36.233	0.000	3.08	4.57	**4.86**	4.82
Concern	52.205	0.000	2.83	4.56	4.87	**4.92**
Influence_Int	46.303	0.000	2.04	2.43	3.42	**3.81**
Influence_Ext	122.63	0.000	2.00	3.32	4.46	**4.71**
NormSocial	40.62	0.000	2.19	2.88	3.64	**3.96**
Transparent	54.226	0.000	2.83	4.29	4.58	**4.91**
Infrastructure	3.743	0.012	2.03	3.24	3.11	**3.26**
Incentive	41.572	0.000	2.08	3.49	3.81	**4.50**
Involve	44.432	0.000	2.42	3.16	4.07	**4.37**
Regulation	60.42	0.000	2.50	4.51	4.69	**4.90**
EoU	8.95	0.000	3.08	3.28	2.92	**3.52**
Useful	52.452	0.000	3.26	4.33	4.72	**4.86**
Attitude	45.184	0.000	2.73	3.88	4.39	**4.63**
Aware1	8.603	0.000	3.75	4.70	4.80	**4.85**
Aware2	25.394	0.000	2.92	4.37	**4.84**	4.78
Aware3	40.032	0.000	2.58	4.64	**4.93**	4.84
Concern1	64.472	0.000	2.50	4.67	4.85	**4.94**
Concern2	28.541	0.000	3.17	4.44	**4.90**	4.90
Compatible	64.125	0.000	1.83	3.46	4.66	**4.70**
Influence_Int1	13.482	0.000	2.25	2.24	2.93	**3.29**
Influence_Int2	62.085	0.000	1.83	2.62	3.90	**4.33**
Influence_Ext1	81.661	0.000	2.00	3.44	4.64	**4.76**
Influence_Ext2	60.386	0.000	1.75	3.05	4.31	**4.63**
Influence_Ext3	62.793	0.000	2.25	3.45	4.44	**4.74**
NormSocial1	11.432	0.000	2.50	3.46	3.92	**4.14**
NormSocial2	11.992	0.000	2.25	2.70	3.38	**3.62**
NormSocial3	54.102	0.000	2.08	2.99	4.03	**4.53**
NormSocial4	17.738	0.000	1.92	2.38	3.23	**3.56**
SelfEfficacy	5.679	0.001	3.08	3.91	3.90	**4.40**
Responsible1	1.757	0.156	**2.75**	2.18	2.41	2.13
Responsible2	47	0.000	1.83	3.86	4.52	**4.74**
Responsible3	30.027	0.000	2.25	3.95	4.31	**4.61**
Transparent1	29.275	0.000	3.17	4.38	4.61	**4.94**
Transparent2	56.303	0.000	2.50	4.20	4.56	**4.89**
Infrastructure1	1.559	0.200	2.00	**3.06**	2.85	2.79
Infrastructure2	4.872	0.003	2.17	3.71	3.67	**3.88**
Infrastructure3	2.256	0.082	1.92	2.96	2.80	**3.11**
Incentive1	22.752	0.000	1.83	3.57	3.28	**4.40**
Incentive2	30.458	0.000	2.08	3.44	4.16	**4.52**
Incentive3	25.148	0.000	2.33	3.47	3.98	**4.58**

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Table 50 (cont.)

Variable	F	Sig.	Neutral-Impartial	Autonomous Advocates	Progressive Prioritizers	Comprehensive
Involve1	36.641	0.000	2.42	3.05	4.05	**4.31**
Involve2	32.604	0.000	2.42	3.28	4.08	**4.43**
Regulation1	68.184	0.000	2.33	4.42	4.74	**4.96**
Regulation2	33.12	0.000	2.67	4.60	4.64	**4.83**
Safety1	2.441	0.064	1.58	1.61	1.97	**2.05**
Safety2	12.197	0.000	**2.92**	1.81	2.39	1.44
Security	185.241	0.000	2.92	4.21	1.77	**4.72**
Cost1	18.043	0.000	2.17	3.21	2.46	**3.87**
Cost2	7.649	0.000	1.83	2.35	2.03	**2.96**
Cost3	20.465	0.000	**4.17**	2.87	2.52	1.94
EoU1	4.064	0.008	**3.50**	2.75	2.26	2.41
EoU2	3.776	0.011	3.50	4.16	3.85	**4.30**
EoU3	1.531	0.207	3.33	3.03	3.02	**3.40**
EoU4	3.767	0.011	2.83	2.98	2.70	**3.42**
EoU5	6.308	0.000	3.42	4.07	4.02	**4.53**
EoU6	2.392	0.069	**2.33**	2.14	1.82	**2.33**
EoU7	28.063	0.000	2.67	3.85	2.74	**4.28**
Useful1	25.468	0.000	3.50	4.41	4.80	**4.94**
Useful2	16.605	0.000	3.83	4.47	4.84	**4.93**
Useful3	20.391	0.000	2.83	4.06	4.57	**4.63**
Useful5	0.285	0.837	**1.92**	1.85	1.84	1.73
Useful6	38.322	0.000	3.08	4.52	4.84	**4.90**
Useful7	21.219	0.000	3.08	3.96	4.48	**4.79**
Useful8	32.693	0.000	3.25	4.58	4.77	**4.97**
Attitude1	33.668	0.000	2.50	4.07	4.52	**4.73**
Attitude2	18.867	0.000	2.50	3.62	4.08	**4.43**
Attitude3	18.27	0.000	3.17	3.49	4.21	**4.50**
Attitude4	35.245	0.000	2.75	4.33	4.74	**4.87**

C.5. Profile of Clusters

Table 51. Profiles of Typology 1 Cluster 1

	Rule-based	Unattached	Concerned	Total
Gender				
Female	54%	0%	69%	62%
Male	46%	83%	29%	37%
Age				
15-25	20%	0%	18%	19%
26-35	47%	0%	30%	36%
36-45	14%	33%	27%	22%
46-55	16%	33%	18%	18%
56-65	2%	33%	5%	4%
66 or above	1%	0%	2%	1%
Education				
Primary school	4%	17%	3%	4%
High school	9%	17%	18%	14%
Associate Degree	8%	0%	10%	9%
Undergraduate	62%	50%	55%	57%
Graduate	14%	17%	13%	14%
PhD	4%	0%	2%	2%
Income				
8.500 or below	14%	17%	18%	17%
8.501-10.500	15%	17%	19%	17%
10.501-15.000	25%	33%	24%	25%
15.001-25.000	30%	17%	31%	30%
25.001-35.000	8%	0%	4%	5%
35.001 or above	8%	17%	5%	6%
Marital				
Married	40%	83%	49%	46%
Single	60%	17%	51%	54%
HouseholdSize				
1	16%	0%	11%	13%
2	29%	0%	22%	24%
3	27%	17%	33%	30%
4	20%	50%	27%	25%
5	4%	17%	5%	4%
6	3%	17%	2%	3%
9	1%	0%	0%	0%

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Table 51 (cont.)

	Rule-based	Unattached	Concerned	Total
Children				
0	71%	33%	59%	63%
1	17%	33%	27%	23%
2	10%	17%	12%	11%
3	2%	0%	1%	1%
4	1%	17%	0%	1%
Car				
Not Have	47%	33%	44%	45%
Have	53%	67%	56%	55%
Bicycle				
Not Have	73%	67%	68%	70%
Have	27%	33%	32%	30%

Table 52. Profiles of Typology 1 Cluster 2

	Irrelevant	Risk-taker	Undifferentiated	Security-minded	Total
Gender					
Female	0%	60%	54%	72%	62%
Male	80%	40%	46%	27%	37%
Age					
15-25	0%	21%	19%	18%	19%
26-35	0%	15%	51%	37%	36%
36-45	40%	32%	13%	24%	22%
46-55	20%	24%	16%	16%	18%
56-65	40%	9%	1%	3%	4%
66 or above	0%	0%	1%	2%	1%
Education					
Primary school	20%	3%	4%	3%	4%
High school	20%	10%	8%	20%	14%
Associate Degree	0%	10%	5%	11%	9%
Undergraduate	60%	62%	61%	52%	57%
Graduate	0%	10%	17%	13%	14%
PhD	0%	4%	4%	0%	2%
Income					
8.500 or below	20%	19%	11%	19%	17%
8.501-10.500	0%	16%	16%	20%	17%

Table 52 (cont.)

	Irrelevant	Risk-taker	Undifferentiated	Security-minded	Total
10.501-15.000	40%	15%	26%	28%	25%
15.001-25.000	20%	38%	31%	25%	30%
25.001-35.000	0%	6%	7%	4%	5%
35.001 or above	20%	6%	8%	4%	6%
Marital					
Married	80%	54%	38%	46%	46%
Single	20%	46%	63%	54%	54%
HouseholdSize					
1	0%	7%	17%	13%	13%
2	0%	16%	30%	25%	24%
3	0%	35%	31%	28%	30%
4	60%	38%	14%	25%	25%
5	20%	0%	4%	6%	4%
6	20%	3%	3%	2%	3%
9	0%	0%	1%	0%	0%
Children					
0	40%	44%	75%	65%	63%
1	20%	32%	16%	24%	23%
2	20%	22%	7%	8%	11%
3	0%	1%	1%	2%	1%
4	20%	0%	1%	0%	1%
Car					
Not Have	40%	37%	49%	46%	45%
Have	60%	63%	51%	54%	55%
Bicycle					
Not Have	60%	66%	73%	69%	70%
Have	40%	34%	27%	31%	30%

Table 53. Profiles of Typology 2 Cluster 1

	Non-other-orianted	Non-focused-security	All-relevant	Total
Gender				
Female	46%	63%	73%	62%
Male	53%	37%	26%	37%

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Table 53. (cont.)

	Non-other-oriented	Non-focused-security	All-relevant	Total
Age				
15-25	18%	15%	21%	19%
26-35	48%	15%	38%	36%
36-45	14%	36%	21%	22%
46-55	15%	25%	15%	18%
56-65	3%	9%	3%	4%
66 or above	1%	0%	2%	1%
Education				
Primary school	5%	3%	3%	4%
High school	9%	9%	21%	14%
Associate Degree	6%	9%	10%	9%
Undergraduate	61%	61%	53%	57%
Graduate	15%	13%	13%	14%
PhD	3%	4%	1%	2%
Income				
8.500 or below	12%	15%	21%	17%
8.501-10.500	16%	15%	19%	17%
10.501-15.000	28%	16%	26%	25%
15.001-25.000	30%	42%	24%	30%
25.001-35.000	5%	6%	5%	5%
35.001 or above	9%	6%	4%	6%
Marital				
Married	41%	55%	45%	46%
Single	59%	45%	55%	54%
HouseholdSize				
1	18%	9%	10%	13%
2	29%	16%	25%	24%
3	26%	36%	31%	30%
4	16%	36%	26%	25%
5	5%	0%	6%	4%
6	4%	3%	1%	3%
9	1%	0%	0%	0%
Children				
0	70%	46%	67%	63%
1	17%	31%	24%	23%
2	10%	21%	7%	11%
3	1%	1%	1%	1%
4	2%	0%	0%	1%

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Table 53. (cont.)

	Non-other-oriented	Non-focused-security	All-relevant	Total
Car				
Not Have	43%	37%	50%	45%
Have	57%	63%	50%	55%
Bicycle				
Not Have	72%	66%	70%	70%
Have	28%	34%	30%	30%

Table 54. Profiles of Typology 2 Cluster 2

	Neutral-Impartial	Autonomous Advocates	Progressive Prioritizers	Comprehensive	Total
Gender					
Female	17%	55%	61%	73%	62%
Male	75%	45%	39%	25%	37%
Age					
15-25	17%	18%	20%	19%	19%
26-35	17%	52%	16%	35%	36%
36-45	33%	12%	33%	24%	22%
46-55	17%	16%	21%	17%	18%
56-65	17%	1%	10%	3%	4%
66 or above	0%	1%	0%	2%	1%
Education					
Primary school	17%	4%	2%	3%	4%
High school	17%	7%	11%	21%	14%
Associate Degree	0%	6%	11%	10%	9%
Undergraduate	58%	63%	59%	52%	57%
Graduate	8%	15%	11%	13%	14%
PhD	0%	4%	5%	0%	2%
Income					
8.500 or below	25%	12%	18%	18%	17%

Table 54. (cont.)

	Neutral-Impartial	Autonomous Advocates	Progressive Prioritizers	Comprehensive	Total
8.501-10.500	17%	19%	13%	18%	17%
10.501-15.000	25%	23%	18%	29%	25%
15.001-25.000	8%	33%	39%	25%	30%
25.001-35.000	8%	6%	5%	5%	5%
35.001 or above	17%	7%	7%	4%	6%
Marital					
Married	42%	37%	57%	48%	46%
Single	58%	63%	43%	52%	54%
HouseholdSize					
1	8%	19%	5%	12%	13%
2	8%	30%	18%	25%	24%
3	25%	29%	36%	29%	30%
4	33%	15%	38%	25%	25%
5	17%	3%	0%	6%	4%
6	8%	3%	3%	2%	3%
9	0%	1%	0%	0%	0%
Children					
0	67%	75%	43%	63%	63%
1	17%	14%	34%	25%	23%
2	8%	8%	21%	9%	11%
3	0%	1%	2%	2%	1%
4	8%	1%	0%	0%	1%
Car					
Not Have	42%	46%	39%	47%	45%
Have	58%	54%	61%	53%	55%
Bicycle					
Not Have	67%	74%	66%	68%	70%
Have	33%	26%	34%	32%	30%