E-PARTICIPATION IN URBAN PLANNING: ISTANBUL SENIN APPLICATION

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Elifsu ŞAHİN *

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Arş. Gör., İstanbul Üniversitesi, Mimarlık Fakültesi, Şehir ve Bölge Planlama Bölümü, Şehir ve Bölge Planlama Anabilim Dalı, elifsu.sahin@istanbul.edu.tr, ORCID: 0000-0002-3683-0167

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ABSTRACT

In parallel with the developments in information and communication technologies, traditional participation in urban planning processes is gradually evolving into e- participation applications. For the effective use of e-participation applications, it is important to evaluate the effectiveness and quality of the applications in terms of participation mechanisms, design, interaction, structure, transparency, and security of processes. The aim of the study is to examine Istanbul Senin application in terms of e-participation, to investigate the use of this application by the citizens and to offer suggestions for its improvement.The study seeks answers to the questions of what the positive and negative aspects of the Istanbul Senin application are in the context of e-participation and how it is used by citizens. The study was designed in two stages. First, Istanbul Senin application was analyzed in line with the criteria for evaluation of e-participation platforms. Second, a survey was conducted to examine the use of this application. The sample group was determined on a voluntary basis and a sample of 100 participants was determined within a reasonable margin of error (10%), taking time and cost into account. Accordingly, issues such as informing and raising awareness of the citizens about the importance of participatory processes, increasing the familiarity of the application, improving the design and increasing the ease of use, improving the way of interaction have been emphasized for the Istanbul Senin application.

ÖZ

Bilgi ve iletişim teknolojilerindeki gelişmelere paralel olarak planlama süreçlerinde geleneksel katılım giderek e-katılım uygulamalarına evrilmektedir. E-katılım ile geleneksel katılıma göre daha geniş kitlelere ulaşılabilmekte, katılım elektronik ortamda kolay, hızlı ve pratik hale gelmektedir. E-katılım uygulamalarının etkili bir şekilde kullanılması için uygulamaların etkinliğinin ve kalitesinin değerlendirilmesi önemlidir. Bu bağlamda e-katılım uygulamaları katılım mekanizmaları, tasarımı, etkileşimi, genel yapısı, süreçlerin şeffaflığı, güvenliği gibi pek çok kriter ile değerlendirilebilir. Çalışmanın amacı, İstanbul Senin uygulamasını e-katılım açısından incelemek, bu uygulamanın vatandaşlar tarafından kullanımını irdelemek ve gelişimine yönelik öneriler sunmaktır. Çalışma İstanbul Senin uygulamasının e-katılım bağlamında olumlu ve olumsuz yönlerinin neler olduğu ve vatandaşlar tarafından nasıl kullanıldığı sorularına yanıt aramaktadır. Çalışma iki aşamalı olarak tasarlanmış, olup ilk aşamada İstanbul Senin uygulaması, e-katılım platformlarının değerlendirilmesine yönelik kriterler doğrultusunda analiz edilmiştir. İkinci aşamada ise bu uygulamanın kullanımının incelenmesi amacıyla anket çalışması gerçekleştirilmiştir. Örneklem grubu gönüllülük esasına, zaman ve maliyetler dikkate alınarak makul hata payı (%10) dahilinde 100 kişilik olarak belirlenmiştir. Analizler ve anket sonuçları birlikte değerlendirilerek mevcut durum ortaya konulmuş ve uygulamanın geliştirilmesine yönelik önerilerde bulunulmuştur. Buna göre katılımcı süreçlerin önemi konusunda vatandasın bilgilendirilmesi ve farkındalığının artırılması, uygulamasının bilinirliğinin artırılması, tasarımının geliştirilmesi ve kullanım kolaylığının artırılması, etkileşim şeklinin iyileştirilmesi gibi konular İstanbul Senin uygulaması için ön plana çıkmaktadır.

INTRODUCTION

Participation, which is one of the most important foundations of a democratic governance approach, means that citizens have a say in the decisions that affect them (Glass, 1979; Roberts, 2004). Participation in urban planning is the effect of citizens on decisions about the city they live in. The understanding of participation in planning, which has come to the fore since the 1960s, consists of traditional methods that required physical participation beforehand. Today, with the opportunities brought by the developments in information and communication technologies, the classical governing role of the state and local governments is changing, and an interactive, citizen-oriented quality service approach comes to the fore (Kleinhans, Van Ham & Evans-Cowley, 2015; Rowe & Frewer, 2000; Shipley & Utz, 2012). In this context, the use of information and communication technologies to involve citizens in decision-making processes and public service delivery is defined as e-participation (Macintosh, 2004; Medaglia, 2012). E-participation consists of different structures (Macintosh, 2004). Evaluating the effectiveness and quality of the e-participation applications is important in order to contribute to the effective use of them and democratic processes (Desouza & Bhagwatwar, 2014). In the evaluation of e-participation platforms, scope, scale, platform, data type, interaction type, pricing, limits, privacy, security, transparency and accountability, participation mechanisms, being user-friendly, inclusivity, accessibility, scalability and flexibility, impact and outcome evaluation are the prominent criteria (Al-Dwairi & Jditawi, 2022; Chen & Hartt, 2021; Delibaş & Akgül, 2010; Desouza & Bhagwatwar, 2012; Diamantopoulou, Androutsopoulou, Gritzalis and Charalabidis, 2020; Falco & Kleinhans, 2018; Kim & Lee, 2012; Kleinhans, Van Ham & Evans-Cowley, 2015; Kubicek & Aichholzer, 2016; Macintosh, 2004; Nielsen, Hennen, Korthagen, Aichholzer & Lindner, 2020; Türken & Eyüboğlu, 2021; Zheng & Schachter, 2017; Zheng, Schachter & Holzer, 2014).

In this context, the aim of the study is to examine the Istanbul Senin application, one of the most advanced e-participation applications in Turkey, in terms of e-participation, to examine the use of this application by citizens and to offer suggestions. The research questions of the study are as follows: (i) What are the positive and negative aspects of Istanbul Senin application in the context of e-participation? (ii) How do citizens in Istanbul use this application in the context of e-participation? The study was designed in two stages. In the first stage, the Istanbul Senin application was analyzed in line with the criteria for evaluation of e-participation platforms. In the second stage, a survey was conducted with 100 people to examine the use of this application. The sample group was determined on a voluntary basis and a sample of 100 people was determined within a reasonable margin of error (10%), taking into account time and cost. Analyzes and survey results were evaluated together, the current situation was revealed and suggestions were made to improve the application. In this context, issues such as informing citizens about the importance of participatory processes and increasing their awareness, increasing awareness of their implementation, design and ease of use come to the fore.

PARTICIPATION AND E-PARTICIPATION IN URBAN PLANNING

Participation is the cornerstone of democracy (Roberts, 2004). According to Arnstein (1969), participation is the conscious inclusion of relevant stakeholders for the future. According to Glass (1979), participation is to provide citizens with the opportunity to be influential in government decisions. Cohen and Uphoff (1980) and the World Bank (1990) define participation as a process in which stakeholders influence decisions that affect them. Democracy theory emphasizes that a strong and inclusive participation system is important and necessary to ensure political legitimacy, accountability and the ability to respond to the needs and preferences of the people. The relationship between participation and democracy theory is multifaceted and dynamic, and citizen empowerment, legitimacy and accountability, deliberative democracy, inclusivity and diversity, and digital democracy are the basic elements of the relationship (Biegelbauer & Hansen, 2011).

The basis of the concept of citizen participation goes back to the Greek city-states, but it can be said that the concept of participation in especially urban planning is a new discussion and has been a distinctive feature of the planning

process for more than a few decades. While the processes of participation in urban planning have been going on in the UK for nearly 60 years, in some countries they have been developing recently (Kleinhans, Van Ham & Evans-Cowley, 2015). Approaches to citizen participation in urban planning practice extend to Davidoff's defensive planning (Davidoff, 1965), participatory planning that emphasizes negotiation processes (Susskind and Cruikshank, 1987), communicative planning that emphasizes communication and reconciliation between stakeholders in decision-making processes, Friedmann's interactive planning approach (Friedmann, 1973) and solidaristic planning (Eraydın, 2017; Healey, 1997; Kamacı, 2014). The understanding of strategic spatial planning, which has come to the fore since the late 1980s, also emphasizes participation in the planning process (Ersoy, 2012), and contemporary planning theory evolves towards planning through communication and discussion (Healey, 1997). For democratic urban management, the planning process should involve citizens rather than exclude them (Davidoff, 1965). It is very important to create communication conditions in which an ideal speaking environment is provided and there is no external interference, and the participants take part in decision-making processes under equal conditions without being exposed to any influence and defend what is good for society in this process (Habermas, 1990). In this context, communication mechanisms involving all stakeholders will bring the planning to the desired results (Purcell, 2009). The exclusion of individuals from the planning processes that affect them is antidemocratic and results in private interests prevailing over collective interests. In addition, participation and the ability of the government to respond to citizens' expectations significantly affect citizen satisfaction (Davidoff, 1965; Ersoy, 2012).

Over time, various ways have been worked out to increase and improve cooperation, communication and interaction between experts and the public (Kleinhans, Van Ham & Evans- Cowley, 2015). Traditional methods of citizen participation since the 1960s are referenda, public hearings, public polls, conferences, town hall meetings or focus groups (Kleinhans, Van Ham & Evans-Cowley, 2015; Rowe & Frewer, 2000; Shipley & Utz, 2012). The main feature of these methods is that they require citizens to be physically present at a certain time and place (Kleinhans, Van Ham & Evans-Cowley, 2015; Roberts, 2004; Shipley & Utz, 2012). Information and communication technologies, which offer new potentials for citizen participation in urban planning, play an important role in the active participation of citizens in planning processes in this age of Internet access almost everywhere (Hanzl, 2007).

E-participation

Information and communication technologies are used at local and central levels to increase the efficiency of the administration, increase the capacity and quality of service provision, and communicate with the citizens (Zobel, 2005). Today, the development of information and communication technologies has affected the traditional understanding of participation, and the idea that participation in the electronic environment can be fulfilled easily and practically has brought the concept of e-participation to the fore (Uçkan, 2003). The use of information and communication technologies to involve citizens in decision-making and public service delivery is defined as e-participation (Macintosh, 2004; Medaglia, 2012). E-participation refers to the participation of citizens in the policy-making process on public issues through online tools (UN, 2010). In other words, it can be defined as the interaction of citizens and administrators on democratic issues online (Andersen, Henriksen, Secher & Medaglia, 2007). In the policy making, it is a process in which citizens are seen as policymakers (UN, 2008; UN, 2010). E- Participation provides citizens with an opportunity for active political participation in the policy-making process and is therefore seen as an important tool by the participatory democracy approach (UN, 2008).

In addition, with e-participation, citizens' participation in policy making and decision-making processes increases, and decisions are implemented quickly. With e-participation, large masses are reached, and more conscious participation is ensured with accessible and understandable information. E-participation supports deliberative discussion, and it is a method where citizens can express their needs, expectations, views and thoughts on a local or national scale with the advantages of

providing openness and transparency in the policy-making process (Gündoğdu, 2015; OECD, 2003).

Considering the information and communication technologies that offer new potentials for citizen participation in urban planning, Geographic Information Systems developed in the late 1990s provided the opportunity to open spatial information, analysis and outputs to all stakeholders (Sieber, 2006). Public participation geographic information systems (PPGIS), which are expected to increase the informed participation of citizens in decision-making processes by developing various applications, have become widespread. Later, geographic visualization interfaces such as Google Maps or Open Street Map, made possible by Web 2.0 technologies, were developed (Adams, 2013). The use of social media and mobile communication technologies has grown rapidly in recent years and social media platforms such as Facebook, Twitter, Google+, Instagram and Youtube have encouraged citizens to participate and interact with other citizens through dialogue. In addition to social media, administrations also attach importance to e-participation applications and websites. The widespread use of the Internet and the ability to access e-participation applications and websites from almost anywhere with smartphones is a great advantage. Mobile participation, the mobile form of e-participation, is defined as the use of mobile devices to expand participation by enabling citizens and other stakeholders to connect with each other, produce and share information, comment, and vote. Mobile participation is expected to attract a much larger group, especially youth and young adults, when compared to traditional participation tools. On the other hand, elderly people and people who are not inclined to technology may not feel comfortable (Mossberger, Wu & Crawford, 2013

Ertiö, 2015; Kleinhans, Van Ham & Evans-Cowley, 2015; Çılgın & Yirmibeşoğlu, 2019; Erdoğan, 2019; Koçak & Bektaş, 2019; Bulut & Kurt, 2020).

Considering the increase in information and communication technologies in recent years, the problem of their articulation with official institutional processes has been a matter of considerable interest and has affected many countries. Citizens' levels of e-participation differ in different countries. While e-participation applications that can meet the demands and needs of citizens in some countries have developed, in some countries they are at the initial level. The existence of e-participation applications in countries and the level of participation of citizens in e-participation depend on both the democracy of the country and the level of technological development. The e-Participation Index (EPI) is derived as an additional index to the United Nations e-Government Survey. This index provides insight into how they use online tools to encourage interaction between government and the public as well as within the public. Looking at the e-Participation research and indices conducted by the United Nations in 2022, it is possible to say that e-participation is widespread and developed in countries such as EU countries (European Commission/Futurium), Korea (e-People), Australia (YourSAy), New Zealand (HaveYourSay/FixIt-Wellington City Council), USA (SeeClickFix/Neighborland) and Singapore (Reach). Turkey ranks 48th among 193 countries (Figure 1). These practices are at local, national or regional scales. In the applications, reports, articles and analyzes are regularly shared with citizens. There are surveys, e-voting, and chat rooms specific to many different topics (urban agenda, transportation, climate-environment-energy-sustainability, housing, economy, management, design, etc.) in the applications. The processes are carried out in citizen-administration cooperation and the results are shared with citizens regularly (Gündoğdu, 2015; UN, 2022).

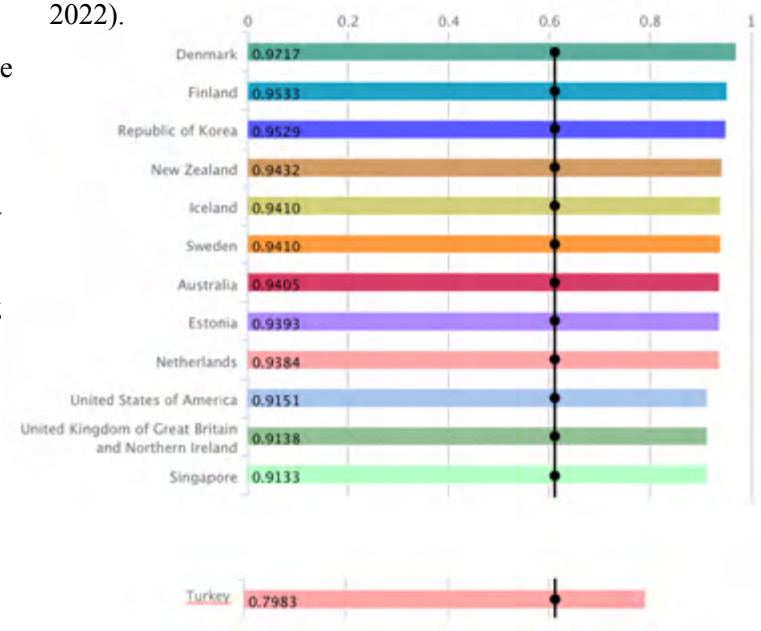

Figure 1. The e-Participation Index of Countries (UN, 2022)

Evaluation Criteria of E-participation Platforms

E-participation applications have revolutionized the way governments engage with citizens. Thanks to e-participation applications, citizens are able to express their opinions, participate in decision-making processes and contribute to policy formation through digital platforms from wherever they are. In this context, it is very important to evaluate the effectiveness and quality of the applications in order to contribute to the effective use of e-participation applications and democratic processes (Desouza & Bhagwatwar, 2014). E-participation consists of three main structures: providing online information, online service provision and online communication between governors and citizens and citizens participation to decision making process (Demirhan & Öktem, 2011; OECD, 2001). In other words, the e- participation process includes the steps of e-information, e-consultation and e-decision making: (a) E-information: Ensuring participation by enabling citizens to access publicly available information unsolicited or willingly (Legal regulations, financial information, annual reports and documents, statistics, announcements), (b) E-consulting: Involving citizens in contributing to and negotiating public policies and services (opinion poll, survey, suggestion-complaint-feedback, chat room and instant messaging, available e-mails of authorities and contact persons), (c) E-decision making: It can be defined as the joint design and production of decisions (voting, petition, decision-making of citizen opinions) (Macintosh, 2004; United Nations, 2023). Some studies show e-voting as an additional step to the process (Demirhan & Öktem, 2011; Edelmann, Hoechtl & Parycek, 2009; United Nations, 2023). Decision-making and agenda-setting issues are other important points in e-participation. While citizens can influence decisions in decision-making, citizens can suggest how to act in agenda setting. In this respect, the creation of an environment of consultation among citizens is important (Dahl, 1989).

According to Desouza and Bhagwatwar (2012), e-participation should be evaluated in terms of the application name, aim, concept, scale, platform (web-based or mobile application), developer, year of manufacture and location, public interest and transparency, information, awareness and access, data type (user-fed, government data, hybrid) and content (idea search, problem defining, problem-solving, awareness raising). In another research, according to Falco and Kleinhans (2018), e-participation should be evaluated according to information, advice, interaction, co-production, self-organizing, platform, scope, and scale, aim, pricing, and limits. In addition to these, the evaluation criteria of the e-participation platform mentioned in many studies can be listed as follows:

Privacy and Security: E-participation platforms should give importance to citizen privacy and security in terms of sensitive information and personal data. In this way, more people will be able to use it effectively. E-participation applications must comply with relevant privacy regulations, have strong data protection measures, and clearly state how user data is collected, stored, and used. Secure authentication mechanisms, strong encryption protocols, and regular security audits are some of the methods that can be applied for data privacy and security (Diamantopoulou, Androutsopoulou, Gritzalis & Charalabidis, 2020).

Transparency and Accountability: Trust in government is parallel with citizens' satisfaction and participation in government (Chang & Chu, 2006; Kim, 2010). In addition, the citizen-oriented nature of the administration and its actions toward democratic participation also ensure citizen trust and satisfaction (Kweit & Kweit, 2007). Regarding this, Sternstein (2010), in his study in the USA, revealed that citizens' trust in government and their thoughts on the transparency of e-participation processes are directly proportional to the frequency of their use of e-participation platforms, their ability to recommend these platforms to others and express themselves openly. To ensure trust and legitimacy, e-participation practices must demonstrate transparency and accountability. In addition, transparency will ensure fair representation of different perspectives (Kim & Lee, 2012).

Participation Mechanisms: The success of an e-participation application largely depends on its ability to engage users. Various participation mechanisms such as e-polls, e-voting, online discussion forums, and online collaborative working platforms are very important in this respect. The application should encourage active participation and provide real-time feedback to users,

promoting a sense of participation and empowerment (Zheng, Schachter & Holzer, 2014).

User Friendly: One of the important criteria for e-participation applications is ease of use. E-participation applications should have an intuitive and accessible interface that makes it easy for users with different technological competencies to use the platform comfortably. A clear and simple design, logical information structure, and ease of interaction contribute to a positive user experience. It is important to analyze the context and target groups so that the application can be user-friendly. Another factor to increase the level of participation is the inclusion of game elements. Game elements need to be chosen carefully and placed in context (Thiel, 2016). It is also important to involve stakeholders in the design to ensure that the processes are user-friendly. Because the design of e-participation applications affects whether people choose to participate electronically. Therefore, managers should include representatives from diverse communities—including traditionally underrepresented groups—in the planning design rather than making assumptions about which web features will attract users. The aim should be to learn which goals and strategies match the needs of local people (Zheng & Schachter, 2017).

Inclusivity and Accessibility: E-participation practices should be inclusive of all segments of society. It should be accessible to all citizens, including users with limited internet access, low digital literacy and/or elderly users, and users with disabilities. In addition, the compatibility of the platform with different devices is also an important criterion. Providing equal participation opportunities for all segments of society is important for democracy and the success of implementation (Chen & Hartt, 2021; Delibaş & Akgül, 2010).

Scalability and Flexibility: E-participation platforms must be scalable for a growing user base and have the ability to process all user data without sacrificing performance. In addition, it should be able to adapt to changing needs and developing technology, be adaptable to different policy areas, and have high integration and flexibility (Al-Dwairi & Jditawi, 2022; Nielsen, Hennen, Korthagen, Aichholzer & Lindner, 2020).

Impact and Outcome Evaluation: Another important criterion is the evaluation of the effects and results of e-participation platforms. This evaluation is important to measure the effectiveness of e-participation in decision-making processes (Kubicek & Aichholzer, 2016).

METHODOLOGY

The study was designed in two stages. In the first stage, the Istanbul Senin application was analyzed in line with the criteria obtained from the conceptual and theoretical framework regarding the evaluation of e-participation platforms. These criteria are purpose, public interest, concept, scale, platform, developer, production year and place, data type/ information flow/ interaction, content, pricing, limits, co-production, self-organization, e-information, e-consulting, e-decision making, privacy and security, transparency, participation mechanisms, user friendly, inclusivity and accessibility, scalability and flexibility, impact and outcome evaluation. In the second stage of the study, a survey was conducted with 100 people residing in Istanbul between October 2023 and February 2024 in order to examine the use of this application within the scope of e-participation by citizens. Since it is thought that they use technology more effectively, the age of the participants is limited to between 18-40. The results obtained from the survey and the data obtained from the analysis of the application were interpreted together, and the current situation was revealed, and suggestions were made on the subject.

The sample group was formed on a voluntary basis among people between the ages of 18-40 who have been living in Istanbul for at least 5 years and who have at least a secondary education degree, as they are thought to be more interested in technology and have higher concerns about the city. The sample size is 100 people. Since participation in the survey applied within the scope of the study is voluntary, a sample of 100 people was determined within a reasonable margin of error, taking into account time and cost. The margin of error for 100 people is at most 10%. Since there is no information about the population's usage rate of the Istanbul Senin application, 100 people were selected by simply assuming 50% (this is the parameter value that will give the highest error margin). The statistical technique applied is the estimation of the population

parameter (point estimation).

Since participation in the survey applied within the scope of the study is voluntary, a sample of 100 people was determined within a reasonable margin of error, taking into account time and cost. The margin of error for 100 people is at most 10% for 95% confidence level. Since there is no information about the population's usage rate of Istanbul Senin application, we have to use sample's usage rate of application. 0.5 (50%) usage rate is the parameter value that will give the highest standard error and it is the worst case scenario that gives the highest error rate. Even in worst case, when we conduct the study with 95% confidence 100 people will give results in approximately 10% error rate. For this reason, in this study that requires voluntary participation, 100 people were selected, which is the number of people that will allow us to make predictions within a margin of error of approximately 10%, taking into account cost and time. The statistical technique applied is point estimation. Basically, it is estimation of the population parameter from sample. Since we don't know the pupulation parameter p, we will use $\hat{p}$. We have found rate of using Istanbul Senin 0.48 which is $\hat{p}$. Confidence Level is 95%, so corresponding Z-value is 1.96. Margin of Error = $Z_{95} * \sqrt{(\hat{p} * (1 - \hat{p}))}$. $1.96 * \sqrt{(0.48 * (1 - 0.48))} \approx 0.1$ which is 10% Margin of Error.

ANALYZING OF ISTANBUL SENIN APPLICATION

Istanbul Senin application is a new generation smart city application where the citizens of Istanbul can easily access all the services they will need. IMM wifi, how do I go, social support, Istanbulkart, IMM mobile, solution center, events, personalize Istanbulkart, Söz Senin, radar Istanbul, IMM pharmacies, air quality and Bütçe Senin are the services included in the Istanbul Senin application. IMM wifi, how do I go, social support, Istanbulkart, IMM mobile, events, personalize Istanbulkart, radar Istanbul, IMM pharmacies and air quality are the parts of Istanbul Senin application that citizens of Istanbul can benefit from in daily life, mainly for urban transportation and socialization. On the other hand, parts of the application such as Söz Senin, Bütçe Senin and the Solution Center are mechanisms where citizens can have a say in urban decisions and make suggestions, criticism and choices.

The Söz Senin surveys included in the Istanbul Senin application is a new generation participatory democracy platform. Here, citizens can express their opinions and set the agenda of Istanbul by participating in surveys on a wide variety of issues. Surveys can be on many topics such as public transportation and urban transportation, environmental problems, urban design and spatial regulations, stray animals, economic and employment-related problems etc. Participatory budget application (Bütçe Senin), which is another platform in Istanbul Senin, ensures the active participation of the people in the decisions regarding the direct budget expenditures and priorities at the local level. Participatory budget implementation is that supports a new management approach shaped around issues such as transparency, accountability and fair allocation of resources. It is a process in which citizens participate in decisions about how all or part of the budget will be spent, in various forms such as proposing projects or voting. Many projects, such as transportation projects, projects on women, the elderly and children, projects on stray animals, projects on refugees, and application projects regarding instant location notification of urban-related problems, have been proposed and voted on. 1.5% (187 million TL) of the 2022 investment budget is allocated to Bütçe Senin projects (İstanbul Kent Konseyi, 2022).

With the live support in Istanbul Senin, citizens can make new applications for all questions and complaints about Istanbul, request a detailed examination, and also see their previous applications through different channels. In addition, various competitions from Istanbul Senin platform can be opened to public voting. For example, Taksim Square, Bakırkoy Square and Salacak coastal strip designs, which were put up for competition in 2020 with the joint work of Istanbul Metropolitan Municipality (IMM) and Istanbul Planning Agency (IPA), were put to public voting on the address istanbulsenin.org. The projects that came first in the public voting have started to be implemented (Istanbul Metropolitan Municipality, 2021).

Analyzing of Istanbul Senin Application in terms of E-participation Evaluation Criteria

When the Istanbul Senin application is examined according to the concepts obtained from the literature

review on the evaluation criteria of e-participation platforms, the purpose of the application is ensuring citizen participation in strategic planning, voting of urban design competitions, and developing spatial design proposals. The application is in the public interest. Also, it can be said that the application is in the concept of Participatory City Management and on a local/ Istanbul scale. Istanbul Senin is both web-based and mobile applications. It was developed by Istanbul Metropolitan Municipality and its IT Department in Istanbul in 2021. Although there is a two-way interaction between the municipality and the citizen, the citizen- citizen interaction is limited. It is a platform with content such as idea search, problem definition, problem solving, awareness development, decision making and participation in decisions, agenda setting. It is a free platform and there is a single-entry voting limit by ID number. Self-organization is restricted, but co-production is available, especially with "Bütçe Senin" and "Söz Senin".

When Istanbul Senin is examined in terms of e-information, there is information about legal regulations, financial information, annual reports and documents, statistics, announcements are included in the application. When Istanbul Senin is examined in terms of e-consulting, there are opinion polls, surveys, suggestion-complaint-feedback mechanism, existing e-mails of authorities and contact persons are included in the application. There is no chat room and instant messaging. When Istanbul Senin is examined in terms of e-decision making, it is stated in the application and by the administrators that the policies are determined according to the opinions of the citizens. In addition to these, usage policies are defined in Istanbul Senin platform. It is stated how user data is collected, stored and used. There is a single-participant voting limit with an ID number, survey results and stakeholder reports are regularly shared with the public. It includes participation mechanisms such as e-surveys, e-voting, e-budget and feedbacks. It is intended for all age groups. It has a confused design, contains game elements. It is open to all segments of society. It is compatible with different devices. However, no additional feature has been developed for the disabled (Table 1).

Table 1. Analyzing of Istanbul Senin Application in terms of E-participation Evaluation Criteria

Evaluation criteria	in Istanbul Senin Application
Application name:	Istanbul Senin
Purpose:	ensuring citizen participation in strategic planning, voting of urban design competitions, developing spatial design proposals, daily needs, social activities
Public interest:	available
Concept:	participatory city management
Scale:	local-Istanbul
Platform:	web based + mobile application
Developer:	Istanbul Metropolitan Municipality, IMM IT Department
Production year and place:	2021, Istanbul
Data type/ information flow/ interaction:	municipality-citizen bidirectional/ citizen-citizen interaction limited
Content:	seeking ideas, problem defining, problem solving, awareness raising, making and participating in decisions, agenda setting
Pricing:	free
Limits:	single-entry voting limit by ID number
Co-production:	available (with Bütçe Senin and Söz Senin)
Self-organization:	restricted
E-information:	legal regulations, financial information, annual reports and documents, statistics, announcements etc.
E-consulting:	opinion polls, surveys, suggestion-complaint-feedback mechanism, existing e-mails of authorities and contact persons/ no chat room and instant messaging
E-decision making:	policy making based on citizens' opinions
Privacy and security:	defined usage policies/ information on how user data is collected, stored and used/ login with ID and password
Transparency:	single-participant voting limit with ID number/ sharing of survey results and stakeholder reports with the public on a regular basis
Participation mechanisms:	e-surveys, e-voting, e-budget and feedback
User friendly:	a confused design, for all age groups, game elements etc.
Inclusivity and accessibility:	open to all segments of the society, compatible with different devices, no additional feature for the disabled
Scalability and flexibility:	update and development available
Impact and outcome evaluation:	The results are regularly evaluated, shared with citizens and used in policy making.

Investigation of Istanbul Senin Application in terms of Users in the context of E-participation

A survey was conducted with 100 people residing in Istanbul between October 2023 and February 2024 to examine Istanbul Senin Application in terms of users within the scope of e-participation.

28% of the participants are between the ages of 18-23, 23% are between the ages of 24-29, 25% are between the ages of 30-35 and 24% are between the ages of 36-40. 60% of the participants are women, 40% are men, and 28% are high school graduates, 51% are undergraduate and 21% are graduate graduates. 18% of the participants have been living in Istanbul for 5 years, 21% for 6-10 years, 19% for 11-15 years, 16% for 16-20 years and 26% for more than 20 years (Table 2). The survey was conducted online and each participant was asked 23 questions. Within the scope of the survey, participants were asked about their individual characteristics (gender, age, educational status, interest in technology, length of time living in Istanbul), whether they know the Istanbul Senin application, whether they use the application or not, for what purpose they use the application, whether they use the urban participation tools of the application or not. They were asked how often they use the urban participation tools of the application, whether the urban participation tools are effective or not, the reasons for not using the urban participation tools, and their opinions about the application being safe, transparent, user-friendly and inclusive.

Table 2. Demographic Profile of Survey Participants

Characteristics	Frequency	Percentage
Age	18-23 - 28 people 24-29 - 23 people 30- 35 - 25 people 36-40 - 24 people	18-23 - 28% 24-29 – 23% 30- 35 – 25% 36-40 – 24%
Gender	Women – 60 people Men – 40 people	Women – 60% Men – 40%
Education Level	High School Graduate/University Student – 28 people Under-graduate – 51 people Postgraduate – 21 people	High School Graduate/University Student – 28% Undergraduate – 51% Postgraduate – 21%
Living time in Istanbul	5 years - 18 people 6-10 years -21 people 11-15 years – 19 people 16-20 years – 16 people +20 years – 26 people	5 years – 18% 6-10 years -21% 11-15 years – 19% 16-20 years – 16% +20 years – 26%

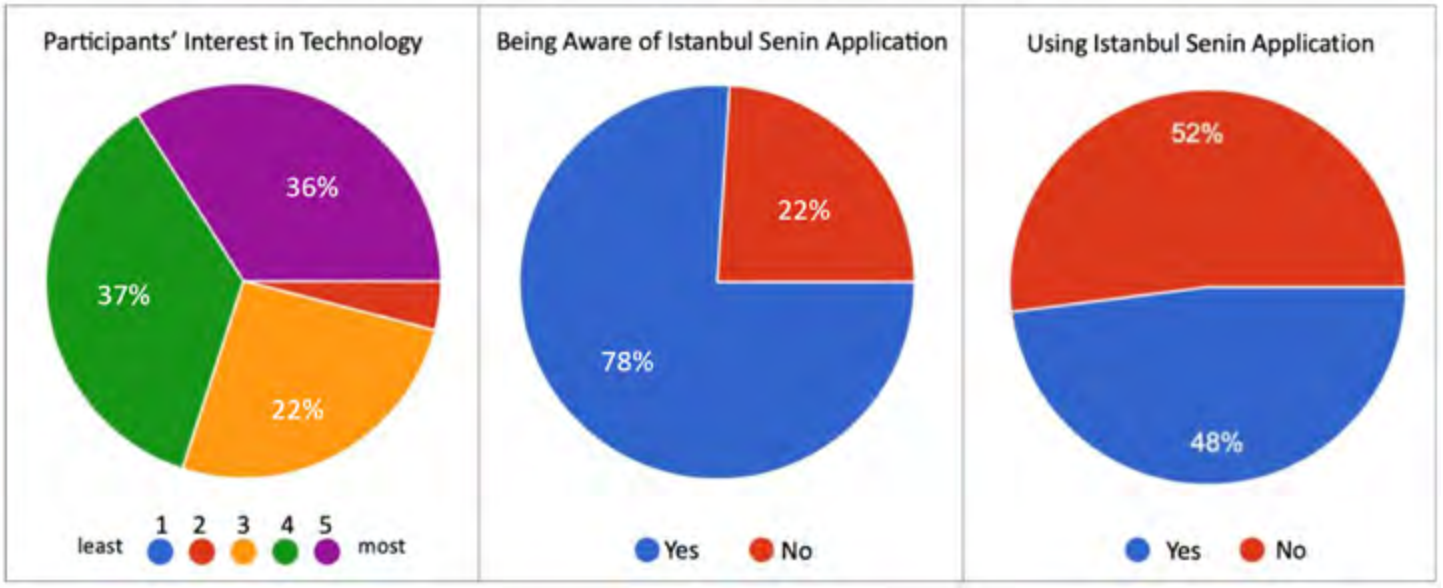

Figure 2. Participants' Interest in Technology, Awareness and Use of Istanbul Senin Application

95% of the participants stated that they were interested in technology at an average or higher level (3,4 or 5 point). According to the data obtained from the survey, 78% of the participants are aware of the Istanbul Senin application. However, only 48% of the participants use the Istanbul Senin application (Figure 2).

Considering the purpose of using the application of the 48 participants using the Istanbul Senin application, 47 of them use the Istanbulkart part of the application. Following this, 27 of them use Istanbulkart personalize, 17 of them use IMM wifi and 15 of them use How to go parts. When looking at e-participation, only 6 of the users use Söz Senin, 7 of them use Bütçe Senin and 11 of them use the solution center (Figure 3).

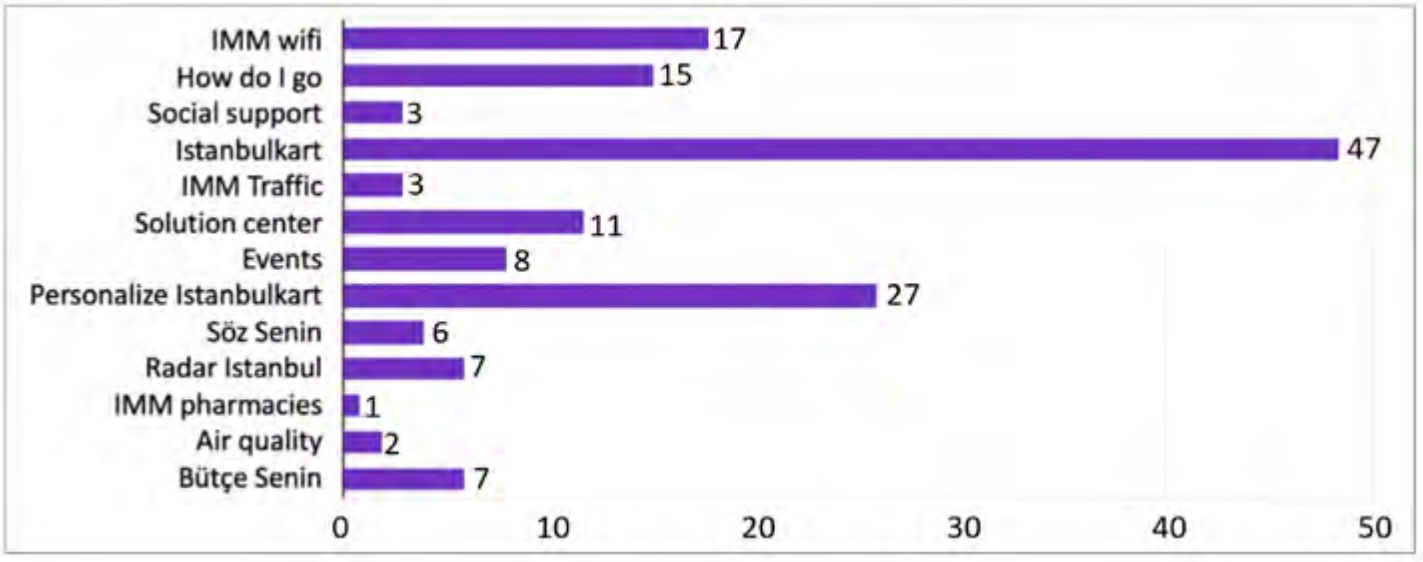

Figure 3. Istanbul Senin Application Usage Reasons

When the use of Istanbul Senin application is evaluated in terms of e-participation, 23 of the survey participants stated that they were aware of Söz Senin part, but only 6 of them were using Söz Senin. On the other hand, 6 users who use Söz Senin part stated that the frequency of participating in the surveys is medium and less frequent. In addition, 21 of the participants are aware of Bütçe Senin part. However, only 7 of them use Bütçe Senin part and review the selected projects in Bütçe Senin part. As an important point, participants who use Söz Senin part also use Bütçe Senin part. 11 of the 100 participants use the solution center (Beyaz Masa part) in Istanbul Senin for complaints and requests. However, 7 participants expressed average and above satisfaction with the solution center/ Beyaz Masa. In this context, although the Istanbul Senin application is known, it seems that its use is not widespread. On the other hand, it can be said that urban participation tools such as Söz Senin, Bütçe Senin and the Solution Center are used very little.

Another important issue in e-participation, 29 of the participants voted in the Taksim Square, Bakırköy Square and Salacak coastline design competitions, which were opened with the joint work of Istanbul Metropolitan Municipality (IMM) and Istanbul Planning Agency (IPA). 23 of the participants think that these platforms opened for the competition are effective. It is thought that participants think that the competitions are effective, see the results of their choices in urban place more concretely, and that the promotions of the competitions are made on many platforms such as websites, Istanbul Senin application, Youtube, Instagram and Twitter increase participation.

It is seen that the participants who use the Söz Senin and Bütçe Senin parts use the Beyaz Masa part and vote in the competitions. In addition, users who use one or more of the Söz Senin, Bütçe Senin, Beyaz Masa parts and vote in urban design competitions also stated their interest in technology as high in the survey. 81 of the participants (81%) think that e-participation increases their participation in urban issues compared to traditional methods of participation. While 81% is a very high rate and most of the participants are of this opinion, it is noteworthy that the e-participation tools of the application are not used, and the reasons should be discussed.

43 of the 48 participants who use the application think that the application is safe and transparent. 27 of the participants who use the application think that the application is user-friendly and inclusive. Participants who know the application but do not use e-participation tools such as Söz Senin (42 people), Bütçe Senin (41 people) and solution center/Beyaz Masa (37 people) were asked why they do not use these tools. The most frequently repeated answers are that the topics are not interesting, the design of the application and its tools is confusing and results do not affect policy decisions.

When the results of the survey are evaluated, the fact that 22% of the participants are not aware of the application and 52% do not use the application, although they are related to technology, shows that the awareness and especially the use of the Istanbul Senin application is not widespread. When we look at the way the application is used, it is seen that the users mostly use the application for their daily needs (Istanbulkart, personalize Istanbulkart, IMM wifi, how do I go), and the awareness and use of e-participation tools of the application (Söz Senin, Bütçe Senin, partly solution center or Beyaz Masa) are quite low. On the other hand, participants stated that e-participation is important in increasing participation in urban issues compared to traditional participation methods. It is an important and positive finding that the application users think that the application is safe and transparent. On the other hand, the data obtained show that the development of the application will be positive in terms of ease of use, design and inclusiveness.

CONCLUSION

Traditional methods of citizen participation existing since the 1960s have left themselves to e- participation with information and communication technologies, which offer new potentials for citizen participation in urban planning (Hanzl, 2007; Kleinhans, Van Ham & Evans-Cowley, 2015). E-participation applications, which include citizens in decision-making processes on city-related issues by utilizing digital technologies, have a significant impact on the urban planning discipline. E-participation applications affect and improve urban planning in aspects such as enhanced citizen participation, transparency and

accountability, data-based decision-making, access to different perspectives, innovation and creativity. Citizens can express their opinions and contribute to ideas on urban planning projects through surveys, votes, forums and feedback mechanisms offered by e-participation applications. Drawing on quantitative and qualitative data about citizens' preferences and needs, planners can identify emerging trends and prioritize resource allocation, resulting in evidence-based and responsive urban plans. Fast and easy participation increases participation in urban planning issues, increases the sense of ownership and authority among citizens, and enables inclusive and therefore more democratic decision-making processes. E-participation practices increase input diversity by increasing the diversity of stakeholders. This diversity of perspectives enriches the planning process by including different desires and concerns in the decision-making process. Therefore, more comprehensive and equitable urban plans can emerge. E-participation applications facilitate communication between citizens, urban planners and policy makers. Citizens can access and follow the information and process about urban projects and planning decisions. This situation encourages citizens to follow what is happening in city-related issues and therefore promotes transparency and accountability in the urban planning process. Therefore, it seriously affects the public interest. With e-participation applications, citizens can make creative contributions to city-related projects and plans and suggest alternative solutions. Decisions and interventions designed in citizen-planner-decision-maker collaboration foster innovation and creativity in overcoming complex urban challenges, resulting in a more sustainable planning approach. In addition, citizens' involvement in the process will increase their confidence in the management and planning institution. Therefore, a well-designed and effective e-participation application is important for urban planning. On the other hand, despite the benefits mentioned above, it is a known fact that there are various difficulties and limitations in e-participation applications. These include limited access to technology for reasons such as economic, health or age, concerns about data privacy and security, and the risk of exclusion of marginalized or underrepresented groups. In this context, it is very important for urban planners to develop innovative and creative inclusive design strategies (OECD, 2003; Macintosh, 2004; Hanzl, 2007; Medaglia, 2012; Gündoğdu, 2015; Kleinhans, Van Ham & Evans-Cowley, 2015).

Istanbul Senin application is an application where citizens can present their ideas and suggestions, participate in voting and set the agenda. So it has great importance in terms of providing instant interaction of users with the local government, reaching large masses by providing easy access and transparent management. Also, having a say in the city will increase the sense of belonging and sensitivity to the urban space. On the other hand, the results of the survey show that the awareness and especially the use of the Istanbul Senin application is not widespread. It is seen that the users mostly use Istanbul Senin for their daily needs. The awareness and the use of the Istanbul Senin application in the context of e-participation are very low. The most important findings obtained from the survey are that people who know the application but do not use e-participation tools are not interested in e-participation and issues related to the city. Also, they think that the application design is confusing and that the results of their votes or opinions will not affect the urban policies.

When Istanbul Senin Application is evaluated together with the survey results, it is positive that the application is both a web-based and mobile application, free of charge and compatible with many devices. Istanbul Senin application is beneficial for seeking ideas, problem defining, problem solving, awareness raising, making and participating in decisions and agenda setting. There is a municipality-citizen bidirectional interaction with opinion polls, surveys, the suggestion-complaint-feedback mechanism (Söz Senin, Bütçe Senin, Beyaz Masa), existing e-mails of authorities and contact persons, etc. Single-entry voting limit by ID number is important to obtain reliable results. Being open to all age groups and all segments of society, use of game elements, sharing survey results and stakeholder reports with the public on a regular basis, and being open to developments are positive. On the other hand, citizen-citizen interaction is limited in the application. For this reason, self-organization is also limited. There is no chat room and/or instant messaging. It has a confusing design and no additional feature for the disabled. Also,

the application is not well known. Moreover, according to the 2022 Bütçe Senin Monitoring and Evaluation Report the ability to follow the implementation processes of the projects selected through the Istanbul Senin application and to provide detailed feedback to rejected projects are among the prominent demands (İstanbul Kent Konseyi, 2022).

In this respect, the first and most important issue is to inform citizens about the importance of participatory processes and to involve them in decision-making and design processes. The awareness of the Istanbul Senin application should be increased. Promotions can be provided through the press, media, and social media. Different incentives can be created to increase citizens' participation motivation. Also, citizen-citizen interaction should be ensured. This interaction is necessary for self-organization and a dynamic system. There may be different tools for this, such as chat rooms and instant messaging. Moreover, the design of the application can be simplified and made more understandable. In parallel with advanced technologies, systems that will make it easier for citizens to understand can be used. Citizens can also be involved in the design processes of the application and a more useful application can be built together. In these processes, disabled citizens should definitely be considered and a design must be made in this direction.

The study is expected to contribute to the studies on the effectiveness and development of e-participation and e-participation platforms in general and Istanbul Senin application in particular. Issues such as improving methods to increase citizens' awareness of participation in planning and e-participation practices, discussing the criteria for user-friendly design of e-participation platforms, and seeking ways to improve interaction among citizens will advance and deepen this study.

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