

Persuasion Capacity of Public Administration in Disasters*

Afetlerde Kamu Yönetiminin İkna Etme Kapasitesi

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ÖZ

The increasing severity of meteorological disasters has made the concept of early-warning within risk governance important. Taking the current knowledge accumulation conditions into consideration, public administration has been focusing mostly on crisis administration when it comes to disasters of which the exact time of happening is unpredictable such as earthquakes. This process has mostly taken place in a "just order and they will do it" manner. Therefore, the literature on the persuasion skills of public administration in disasters is currently not abundant. The theme of the executive persuasion capacity in disasters has not been exclusively and extensively studied regarding the aspects of organizational structures within public administration and the human environment. In fact, administrative persuasion skills to be exercised on the community before disasters to prevent them from being harmed is a subject that needs serious consideration and work. In contrast, the subject of "persuasion" has been studied in depth within business-oriented works that aim to sell products to customers governed by the philosophy that could be depicted as "make them envious and they will buy it". In this article, a survey-based methodical study that utilizes public opinion polling system has been conducted on the persuasion ability of an administrative authority. And the popular methods of the business industry focusing on "how to convince a customer" have been employed. As a whole, this research article features a transdisciplinary study.

Anahtar Kelimeler: Public Administration, Persuasion Capacity, Disaster Administration, Transdisciplinary Study.

ABSTRACT

Meteorolojik afetlerin artan şiddeti, risk yönetimi içinde erken uyarı kavramını önemli hale getirmiştir. Mevcut bilgi birikimi koşulları göz önüne alındığında, kamu yönetimi deprem gibi kesin zamanının önceden tahmin edilemediği afetler söz konusu olduğunda kriz yönetimine daha çok odaklanmaktadır. Bu nedenle, afetlerde kamu yönetiminin ikna becerilerine ilişkin literatür giderek artmaktadır. Afetlerde yöneticilerin ikna kapasitesi teması, kamu yönetimi ve insan çevresi içindeki örgütsel yapıların yönlerine ilişkin olarak münhasıran ve kapsamlı bir şekilde çalışılmamıştır. Aslında afetlerden önce topluma zarar gelmesini önlemek için uygulanması gereken idari ikna becerileri, ciddi düşünülmesi ve çalışması gereken bir konudur. Buna karşılık, müşterilere ürün satmayı amaçlayan iş odaklı çalışmalarda "ikna" konusu derinlemesine incelenmiştir. Bu makalede, bir idari makamın ikna kabiliyetine ilişkin kamuoyu yoklama sistemini kullanan anket temelli metodik bir çalışma yapılmıştır. Ve "bir müşterinin nasıl ikna edileceğine" odaklanan ticaret endüstrisinin popüler yöntemleri uygulanmıştır. Bir bütün olarak, bu araştırma makalesi disiplinler arası bir çalışma içermektedir.

Keywords: Kamu Yönetimi, İkna Kapasitesi, Afet Yönetimi, Disiplinlerarası Çalışma.

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1. INTRODUCTION

The type of society which is surrounded by social lifestyles that are hand in hand with risk, uncertainty, and insecurity triggered by the transformation into an information society and the values of societies was first named as the "risk society" (Cottle, 1998). The concept of risk society is now among the concepts frequently used by the global world (Bayhan, 2002) shaped by information within the evolution of information society, human, time and space. "The feeling of danger" is now being carved into our brains due to new technologies and new products developed almost in every subject area. The people who have settled on the land are changing into a society of risk and fear. Urban security and fear are now being correlated.

Urban flexibility and resilience are the degrees to which the cities tolerate change before reorganizing around a series of new structures and processes and these concepts are based on the city's ability to keep the simultaneous balance between their ecosystems and human activities/functions (Alberti *et al.* 2003). The issues of security are not solely associated with military structures. It is viewed as a wide concept that encompasses all kinds of values such as economic security, nature-oriented environmental security, energy security, and border security that provide the government's sustainability with its country and nation. The security threats include not only classic enemies such as other governments beyond the borders but also the ones who create violence by using force, drug cartels, and criminal organizations. Natural disasters and incidents that cause severe environmental damages are also analyzed within the concept of security.

The issue of the administration's persuasion capability to prevent society from being harmed is an important matter when it comes to early warning systems developed for detecting natural and human hazards. Early warning can also occur during the disaster. This issue has not been extensively studied taking the organizational structures and their surroundings within public administration. The reason behind this is the fact that a "disaster administration method" mostly adapted to crisis administration planning during and after earthquakes had been prominent for long years. Additionally, the "high waves" (tsunami) that could form after earthquakes had not been observed in Turkey for centuries and this has allowed the authorities to not consider the land and sea integrity during disasters. Persuasion becomes important depending on the subject during the post-disaster process. However, the "early warning" process is more associated with the pre-disaster period. Early warning signifies the warning done beforehand, regarding a possible wave of disaster.

The subject of persuasion in the literature dominantly focuses on the conditions that allow the businesses to persuade the clients to buy a certain product and their rates of success in doing so. And also ways and success rates of politically impressing the voters are among the "persuasion topics" widely analyzed. Nevertheless, some of the elements present in these identifications can be linked with the persuasion of society in disaster administration. The known methods that enable persuasion and are specifically usable for our topic within public administration can be utilized for making the early warning systems efficient.

Early warning in its fundamental elements is the act of raising 'awareness' by informing those who are concerned through various methods and make them earn enough 'time' to escape from a dangerous situation. By official definition, the word "early warning" is depicted as the "announcements made by official institutions and organizations determining the source, place, time, severity or magnitude, probability, probable effects of the approaching danger or threat" (AFAD, 2014, 70). The definition also underscores the importance of building a warning system while preparing for disasters. This expression can be linked with technical infrastructure in its strict sense. In its broad sense, on the other hand, these preparations should not only warn the inhabitants of an incoming disaster but also should aim to inform the society on what to do for being prepared. The issues related to the question as to which communication method should be used during this process encompasses both the "security" of the communication tool and its "accessibility".

The early warning process' success is tied to two crucial elements coexisting. The first element is to use the appropriate technology and tools of communication and the second one is, the ability to persuade and to manage by influencing the local society, depending on the level of danger, this disaster is expected to cause. Everyone expects the public administration/authorities to first develop a strategy based on the issue and then be a facilitator, guide and leader while the inhabitants are taking the suggested measures. Undoubtedly, the administrative mechanism also expects the public to take individual measures according to the given information and to follow the instructions (Karaman, 2018).

Disasters of meteorological character are good examples of disasters for which the administration can make early warnings. These disasters are drought and desertification; floods and torrents; forest fires; strong winds, storms, and tornadoes; avalanches, hail, lightning strikes (General Directorate of Meteorology, n.d.) and among geological ones, earthquake, and tsunami. In today's information medium, for example, it seems impossible to send early warnings for earthquakes and to tell people that there will be movement in the land during a specific time interval. However, the possibilities of tsunamis and active volcanoes in the region being triggered after an earthquake are detectable. Although there are dormant volcanoes in Turkey with hot water sources, it can be said that volcanoes pose a threat that could be placed in the other group of disasters. It is noted by experts that predicting volcano eruptions is a very difficult task, as each volcano has its own unique and complex labyrinth of tectonic plates. Although nature is full of mysteries, scientific studies are continuing to analyze the phenomena.

Many examples can be given to demonstrate the importance of creating social awareness through early warning. As a matter of fact, the earthquake that happened on the Sulawesi Island of Indonesia on September 28, 2018, with a magnitude of 7.5 and the tsunami caused after it of six meter-high waves killed at least 844 people. In a statement to the BBC Indonesia Service, a spokesperson for the Indonesian Emergency Response Authority confirmed that the early warning system was not working on the day the tsunami occurred and stated that 21 floating tsunami detection devices had been damaged or stolen. The fact that the

inhabitants were not warned against the tsunami has been correlated with the increased number of deaths in the event. (BBC News, 2018). Similar events occur every day, as storm Dennis (Castle, 2020), Coronavirus (BBC News, 2020), different types and effects of disasters all around the globe. Especially in underdeveloped countries, since social resilience is very low, the losses after an incident are viewed as a dramatic issue.

In cases of 'health-related' disasters which are currently a global issue, the ability to identify the risks and manage the crisis is an essential duty of the public administration. In terms of its philosophy, public administration during a disaster is of 'imperative' nature. This issue is irrelevant to whether or not the country is an "authoritarian and totalitarian" country. In terms of administration during disasters, there are opportunities and tools available on one hand, and on the other hand, there is the community/residents. As in the case of Coronavirus COVID-19, Some disasters on a national level can become global as well. World Health Organization (WHO) announced COVID-19 to be a pandemic on March 11, 2020, and since then measures are taken on a global scale. Countries with a high threshold of trust can generally be successful in public persuasion. However, in others, the persuasion process may require more punishment-based deterrent sanctions. Politics can only be convincing and persuasive by primarily following the knowledge generated by scientific data. It is also important for people to be aware of the dangers and take their own actions with the consciousness of responsibility, in terms of a sustainable and healthy society.

2. TOOLS OF PERSUASION AND INFLUENCE IN PUBLIC ADMINISTRATION

New threats of natural origin that have not been encountered before in Turkey have created a need for the development of professionalized communication structures due to the responsibility of the administration to ensure the safety of the public. On September 26-28, 2018, the need for severe thunderstorm warnings was born, especially along the western coast of Turkey, and the storm forecast has become a public fearful dream for a while (CNN Turk, 2018). Even if a storm's severity was below the expected level, the sea level got higher and there were floods along the seaside.

In addition to public information on climatic changes, the administration authorities are also having difficulties in risk analysis studies. There has been a first experience in Turkey as well regarding the early warning for storms. Even if the administrative awareness and social awareness are accomplished on these issues, it is now seen that the inhabited areas are not structurally ready and connected to this fact, the individuals are not mentally and cognitively ready for these. Similar cases have started to occur frequently in the regions of the Black Sea, Aegean, and the Mediterranean. Due to climate changes, natural events such as tornadoes and strong winds are predicted to become frequent and routine. In fact, the tornadoes caused by the storm in the Mediterranean that occurred on January 24, 2019, turned Antalya into a battlefield. Four houses were demolished and roofs of some of the public buildings were damaged, vehicles were submerged in water, a young girl flew out of the plane that crashed into the sea, trees have fallen and there were people stuck underneath and a 13-year-old boy was killed because of the objects flying around and hitting him in the head (Ozturk, 2019). These kinds of incidents and Esteemed President Recep Tayyip Erdogan, announcing that there had been 100 million Turkish liras of damage due to this storm, on the evening news (Habertürk, 2019) show that there is a huge economic aspect to these events and it has reached a significant level. Immediately afterward, news of the tornado causing structural losses in Mersin was shared with the public on January 30, 2019. These and similar disasters show the level of importance of the issues such as planning of financial administration and the responsibility of the public administration in disasters and the people's compliance with the necessary instructions, in other words, developing behavioral reflexes based on the type of disaster.

Managerial manipulations appear in different ways in discussions on managing social behavior through persuasion in sudden disasters. The comments made by people with different expertise and authorities before an event occurs are the best examples of this. Comments or evaluations made by people such as the governor and the mayor in the same area, which develop as accusations towards each other, also fall into this group. Thanks to the instant communication opportunities provided by technology, the lessons acquired among communities damaged by disasters are rapidly shared on a global scale. (Karaman, 2018). For instance, after the Hurricane Harvey (August 25, 2017) in Texas, United States, more than 39,000 people were removed from their homes due to flooding that brought destruction and death (Amadeo, 2019). The mayor, the governor of Texas and officials at all levels have been the subject of public and international criticism (BBC News, 2017) for giving different information and warnings regarding the evacuation that has become necessary due to the hurricane. Although it is not always possible to accurately predict the various hazard differences, especially the severity of the disaster, the failure to adequately fulfill the responsibilities, especially in the preparation phase, becomes the main theme of these discussions.

2.1. Strategies of persuasion and influencing

"Persuasion" is the process of configuring the thought, behavior, and attitudes of the target person or group in the desired way. Influencing, on the other hand, is the attempt to change the attitudes and behaviors of the target person or audience over a longer period, so as not to contradict their wishes and interests while still persuading them. The persuasion effort is much more clearly expressed whereas, during influencing, a more secretive and long-term communication strategy is utilized (Tasci ve Eroglu, 2007). The subject of persuasion is generally important in social and political relations as an effort by the persuader to condition the views of others. In order to accomplish a social or political action, making people believe through persuasion is essential and the discourses can entail true or false claims (Solferino *et al.* 2015). This allows making the persuaded person to see the act of pursuing the newly proposed objective as a requirement in order to reach the goals.

Ekman (1999) stated that the expressions he classifies as micro-mimics (fear, sadness, disgust, surprise, worry, hate, happiness) do not differ by culture. In fact, the events that cause these expressions/reactions are more or less similar. This brings us to the fact that it is possible to lead and direct people. For people to be persuaded, there must be some kind of interest in the work to be done. When there are people to persuade, the benefit that will be the outcome of the matter in question must be stated in concrete terms. There is a two-way interaction in persuasion, from cause to effect and from effect to cause.

Six key features are generally considered sufficient for a marketing strategy: reciprocity, commitment and consistency, social proof, liking, authority, scarcity factors are areas used for persuasion (Oner, 2015). These methods of persuasion are summarized in three main headings below.

- First, offer them something and make them feel that they owe you,
- Offer something special to make them feel special,
- Make the offer personal and make sure they think of you as one of their own.

When the issues of persuasion are interpreted in terms of public services and executive responsibility, general rules for the disaster administration process can be developed. As a matter of fact, people need to trust the people who are giving them instructions and there need to be some indicators to maintain this confidence. Behavior indicators that citizen wants administrators to have could be thought as in the following examples: You sacrifice first and then ask me to sacrifice; act to show that you care about the citizens/residents; you also should perform the behaviors that you want to see from us.

Some sources add more to the list of behaviors that bring success in the face of those who want to be persuaded (Elias, 2018)¹. Among the choices on this list, the keywords that could provide the right application on our subject are the following: Knowing where to stop trying, the right use of the word "because", synergy and collaboration, meeting the expectations, making comparisons, scaring with scarcity, raising interest, using punishment, sensitivity/consistency, urgency, loss aversion, using moral values.

Each of these rules listed above actually summarizes their content as well. Depending on the situation of the immediate threat, and keeping in mind that there is the pressure of time constraints, the administration informing people with the right manner, as well as being reliable and consistent with the examples from the past, also showing that they trust people, expect them to be supportive and encourage them with praise are seen as methods to increase success.

Since early warning in disasters requires taking the concepts of emergency and urgent into account, the issue of "persuasion" needs to be reviewed with the help of accountability elements. However, whether this process is effective or not will be significant for the success of "affecting others" Besides, having the capacity to simultaneously use several elements provides functionality. In today's technological or communicative conditions, or in the face of the information partnership shaped by global principles, the societies can now confirm the administration's announcements through various national or international channels. This issue makes it important for the authorities to know what they want from the public and to show that it manages to communicate with the public, relying on confirmed information support. In addition, the ability to share persuasion methods with the public in a manner that makes their implementation possible means that the process is well managed. The repeated repetition of the desired message is an important tactic. To reinforce the main idea, sounds or images are repeated and, if necessary, unpleasant images can be shown many times. Visual messages are known to make quite an impact on the viewer. News and visuals (BBC News, 2019) regarding the toxic smoke in Bangkok (Thailand) which has forced more than 400 schools to close for the week to protect children from its harmful effects have been effective in supporting the planning of measures, with the support of the press.

2.2. Persuasion power of the press and political power

The role of mass media in creating and strengthening public opinion is huge. In the last forty years, journalists are no longer familiar with terminology according to the type of news but are becoming professionals of terminology. The types of news were divided into "hard news" and "soft news" in the USA for the first time and without any scientific ground (Reinmann *et al.* 2011). We can apply a similar approach to the relationship between disasters and the press.

As part of their tradition and due to being practical, journalists analyze, select, interpret the messages and information provided by the media and give ideas and reflect their thoughts on them. Disaster-related events are a very sensitive public duty among the duties and responsibilities in the service of the community. Therefore, greater control over the content and reliability will be sought. For the media, access to accurate information also means a constant race. For the media, the transfer of new and private information directly from the administrative authorities is a problem-free method for themselves. However, the administration may also be obstructing the transmission of accurate information to the public. Issues that interest the whole

¹ 1. "Know where to stop trying" technique, 2. Good use of the word "because", 3. Finding a common area of interest, 4. The power of expectations, 5. Reasoning by analogy, 6. Raising interest, creating a curiosity gap, 7. The foot-in-the-door technique (creating big demands through small reciprocal trades), 8. The door-in-the-face technique (making reasonable requests), 9 Reciprocity, 10. Liking, 11. Scarcity, 12. Use of Authority, 13. Sensitivity / Consistency, 14. Social Proof, 15. Urgency, 16. Loss aversion, 17. Future pacing (Defining the long-term results), 18. The Zeigarnik effect (raising curiosity), 19. Using high-activation emotions (rage, happiness, gloom), 20. "Purple Cows" (finding attractive items), 21. Using the strongest word for persuasion, 22 Adjusting the benefits, 23. Belief and knowledge matching (Elias, 2018).

community can be subject to the supervision of the administration as it is either instructive or merely informative. This situation leads people to turn to reliable communication channels in the global relations network in order to check the information. The views sought to be imposed due to administrative pressures, and from an administrative point of view, challenge and oppress the media and affect their freedom (Ejupi *et al.* 2014). Free and independent media play a role in the development of the democratization process by contributing to the growth and freedom of expression and thought. In modern societies, knowledge is crucial for the quality of the decision-making phase of citizens and legislators (Ejupi *et al.* 2014). Therefore, it is the primary duty of the administration to convince the public that it is providing accurate and reliable information, so as not to lose its credibility.

By the way, we consider it to be worth mentioning the social tension that began after the downing of the Ukrainian plane in Iran (Browne *et al.* 2020), which appears to have not been "accidentally shot down". The news reported on the screens of the Iranian state television showed that at least three anchors working for the Iranian state television IRIB had left their jobs. Celebrity newscaster Gelare Cabbari announced her resignation on her social media account with the words, "I'm sorry for lying to you for the last 13 years." Another newscaster, Zehra Hatemi, who resigned, said, "I will not return to television again"; Saba Rad said, "After 21 years of working in the media industry, I will no longer be able to work in the media." Three female news anchors consecutively resigning at the top of their careers as a reaction to the cover-up of the event has been considered a strong "reaction". In addition, Iranian President Hasan Ruhani stated that the Ukrainian plane shot by an Iranian missile is an "unforgivable error" and that they will conduct follow up works (according to Iranian state television) (BBC News, 2020). He also mentioned that Judiciary Force should build an ad hoc court led by a senior judge since the issue is not an ordinary case and that the whole world will be watching this court (Sabah Newspaper, 2020). Analyzed as a whole, the fact that the newscasters also got the President's support and this situation shared with the whole world which is questionable according to the author whether it was a real reaction due to the centrist-Islamic nature of Iran, actually shows the exact features of "fantastic realism".

Historically, a political balance is both expected and not expected in the activities of the press. In fact, it can easily be observed that the press is prejudiced, biased and has a close affiliation to certain parties. As a matter of fact, the view that editors carry the idea openly advocated by certain political candidates or parties to the pages of newspapers still remains valid today. Nevertheless, starting from the BBC in the UK in the 1920s, in several countries, as the first radio, then the television were being established, their aim was public service and they had the approach that the publishers were there to serve the entire community by balancing different opinions in the society and serve not certain goals but all goals of the society and they had to publish news in a balanced manner.

While news outside the country about what is going on in the world seems to be more easily transmitted to the public, informing may not always be trouble-free. Sometimes due to diplomatic relations on an international level, information retention partnerships may also arise. Therefore, international public opinion might always have doubts about the reliability of the information. The impact of the media on our ways of forming behaviors is undeniable. However, due to political influences, the issue of creating public opinion by sharing information that draws curiosity is a very important and fragile issue. In fact, the disappointment faced due to the performance and often limited capacities of the administrations and the tendency of the administration to withhold information due to "security" is a characteristic that undermines public trust in the administration.

Regarding the fact that the concept of security entails natural and human-induced dangers, establishing cooperation between public and the administration based on good faith, ensuring public contribution to defining measures by taking the local expectations of the residents into account are among important managerial steps. Residents, especially in the region of disaster, should have information about the actions and operations of the administration, know-how and by whom the decisions are taken and trust these. It is important that the source giving the news, the reliability of the news being collected, and the communication network, three of them as a whole is "secure and persuasive". Using the information that the public also has could create a potential for a managerial empowering effect. When indicators developed for disaster-resilient societies (Twigg, 2009), we observe the elements of the Hyogo Action Plan (2005-2015) such as ensuring public participation, sharing information, developing technology, utilizing public opinion and media, voluntary contribution and creating disaster funds are prominent. In addition, paying attention to key principles such as risk assessments and multiple risk maps, vulnerability-related indicators, human-centered early warning information systems, climate modeling, and forecasting enhance managerial success.

The subject of persuasion always had an important place in the classical discipline. Good administration of public relations in public administration is a process developed by democratic socialization. If public relations is the total of tools that bring the institutions to their goals in brief terms, whilst having common elements, it is possible to come up with broader definitions regarding these goals and tools based on institutions and topics. Public Relations in Disasters can be defined as "integrated mechanisms developed to rapidly transfer the situation analysis prepared by the administration before, during and after the disaster to the residents, to provide and facilitate mutual communication and interaction between local people and administration". The first mechanism of these efforts is the interaction of institutions with each other (integrated corporate responsibility) and the other is the institutional interaction of the administration with the residents.

Success in informative interaction can be attributed to the "age, intellect, educational level, willingness to learn, gender differences, experience related to the subject" of the audience. On the other hand, similar elements are important during the training of the public. Public education does not mean that individuals casually learn something from the natural, social environment they are in. Of course, thinking about which issues should be handled in order for disaster training to become

successful is currently significant. The speaker's use of speech techniques and their outlook are important in persuasion. Research suggests that the more a problem or incident reporting is repeated, the more interest it raises.

There are two main ways of learning for individuals. The first is to inform the individual while they are working, having fun, talking, listening to the radio, watching television or movies. Mass communication tools are very effective in this respect. The second way of learning for the individual is organized learning. In this way, public education aims for the individual to acquire knowledge and skills in order to change and improve their abilities, actions, attitudes, and behaviors by utilizing their leisure time; in short, it aims for personal development (Geray, 2002). These training sessions done by expert organizations will create the potential to increase the training's benefits. Municipalities have an important function in public education. Voluntary organizations can also develop this work in collaboration with local administrative bodies. Universities have the infrastructure to serve the development of community capacity through their continuous education centers and experts.

In the end, considering all training works of different levels, prominently with the support of specialized civil organizations and experts, it is aimed to educate individuals who are sensitive to problems that can evaluate service disruptions, examine cause-effect relationships, can solve them, can think on solutions and can develop suggestions. Strategically, it is an important detail to know that guidance can be made by those who convey information by accurately portraying and explaining issues, providing understanding and meaning as supporting elements of information.

3. SOCIAL RESILIENCE AND THE CONTRIBUTION OF GOVERNANCE METHOD

Nowadays, issues of social-institutional responsibility and cooperation are becoming increasingly important to ensure the sustainability of the democratic structure of the society. It is crucial to well interpret the philosophical roots and make a versatile analysis of the topics related to enabling practices that are the tools of democracy such as participation, good administration, and governance used to achieve cooperation and solidarity. Common features of these terms relate to the internalization of democracy and the maturation of political culture. The need for institutional and sectoral cooperation in disaster administration studies shows the need for efficient use of the tools of democracy's implementation. The concept of governance below has therefore been questioned in terms of how effective it can be in achieving social resilience.

3.1. The concept of governance

While the word "governance" is traditionally derived from the word "government," its philosophy behind, is far from its traditional meaning focused on the actions of the rulers to direct from the country's center and to make decisions by themselves and implement them. From a methodological viewpoint, the public, private and civil sectors should be presented in the administration's decision-making processes through not only direct participation methods such as referendums, voting and etc. but also through negotiations and discussions raising their interest in the subjects. However, despite the close relations of the word governance with democracy, neither the administration nor the academic world has shown much enthusiasm in using the word in Turkish.

The use of the governance method is found in postmodern forms of organization. Cooperation, interdependencies, deliberative democratic structures stand out in this structuralism (Babaoglu and Çobanoğlu, 2018). However, disaster governance directly has a strong link with safety and methodologically speaking, due to the administrator's political and administrative responsibility brings out partly modern and even traditional rigid administration elements such as "bureaucracy, hierarchy, and set of rules, professionalism based on talent and capacity". While the search for effectiveness in disaster administration the phrase "Integrated Disaster" signals "governance" with organizational and sectoral collaboration; it has a centralized feature in terms of the final decision making and especially putting the decisions into action. In other words, the appropriate elements of the approaches described in classical, modern and postmodern administration theories are used together in effective disaster administration. Depending on the nature of the risk and crisis process, this depicted partial method partnership is especially supported by technological innovations and the e-participation method stands out among communication styles and service development. In the institutional and social cooperation provided by this complex managerial climate, it is of increasing importance that the authorities, duties, and responsibilities of the relevant actors as stakeholders are stated and known in advance.

3.2. Governance and social cooperation in local legislation

Municipality Law of Turkey (2005) has democratic and participatory duty structures in terms of its basic philosophy and organizational structure. Basically, the issue of the neighborhood and its administration (Municipality Law 9, 2005), leaves a significant service responsibility associated with life quality to the neighborhood administration (chief officer of the neighborhood and the elders' committee). The provision stating that "the chief officer of the neighborhood, with the voluntary participation of the neighborhood residents, is responsible for defining common needs, improving the life quality of the neighborhood, managing its relations with the municipality and other public institutions and organizations, presenting reviews on subjects related to the neighborhood, collaborating with other institutions and performing other duties stated by the law" supports this fact.

The Municipality Administration in turn "provides in-kind assistance and support to meet the needs of the neighborhood and its chief office and to solve their problems within the budget limits; takes into account the common wishes of the neighborhood in its decisions and ensures that the services are carried out in accordance with the needs of the neighborhood". However, in practice, the "chief officer of the neighborhood" just continues their duties regarding issuing official documents and

there are no indicators showing how much time they spend with the residents of the neighborhood in order to increase their life quality and to put the participatory mechanisms in use.

The term "neighborhood resident" is associated with the law of citizenry. The reason for the existence of the municipal organization is "citizenry" formed in the city. Citizenry law (Municipality Law 13, 2005) covers everyone. Residents have the right to participate in municipal decisions and services, to be informed about municipal activities and to benefit from the assistance provided by the municipal administration under conditions that do not harm human dignity. However, the right to elect and be elected which is a means of direct participation in the administration is only given to "citizens" and foreigners are not entitled to this right. Municipalities "carry out necessary works for developing social and cultural relations among residents and protecting cultural values. Taking measures to ensure the participation of universities, professional organizations with public institution features, trade unions, non-governmental organizations and experts in these studies" is legally guaranteed.

Feeling responsible for your city and participating in decision-making processes using active participation mechanisms other than elections is based on a voluntary relationship. Although there is a direct article on volunteering and the procedures and principles for the qualifications and employment of volunteers are clarified by a regulation issued by the Ministry of Interior (Municipality Law 77, 2005), in terms of capacity varying according to municipalities, the determination of the value added to the town or the measurement of its success has not been achieved yet. However, voluntary work in local governments (Toprak, 1990) is important in the implementation of urban services, both in terms of the creation of local politics and the contribution of social capital. The municipality can create programs with volunteer participation, on health, education, sports, environment, social services and aids, library, parks traffic, and on services to the elderly, women and children, the disabled, the poor and the needy to ensure solidarity and participation in town, to increase savings and efficiency.

Expert commissions are established in municipalities for participation in urban services (Municipality Law 24, 2005).. Expert commissions are democratic mechanisms that are appropriate for good use of social capital or capacity. The works that fall within the duties of the expert commission are discussed in this commission before being handled in municipal assembly for decision-making. Similarly, in metropolitan municipality organizations (Metropolitan Municipality Law 15, 2004) there are provisions stating that experts can be used during the work of the commission, and regarding the issues on the agenda, opinions from various institutions and organizations can be collected. Also in urban special administrations (Special Provincial Administration Law 16, 2005) expert commissions which included "representatives such as governors, village and neighborhood chief officers, public institutions and organizations and non-governmental organizations" were established. However, there are no indicators prepared for measuring the efficiency of social participation in expert commissions, which express opinions alongside elected members.

Another important issue in legislative activities open to public participation is the strategic plan work, which is mandatory in municipalities with a population of more than 50,000 residents. The principle of necessity, also theoretically paves the way for participation in decisions. In addition, emergency planning related to disaster administration is also regulated in Municipality Law No. 5393, specifically focusing on risk or preparedness activities of municipalities (Municipality Law 53, 2005). According to this regulation, "Taking the characteristics of the town, in order to protect the residents from fires, industrial accidents, earthquakes, and other disasters and to reduce their negative effects, the municipality, prepares the necessary disaster and emergency plans and ensures that the necessary team and equipment are ready. In the preparation of emergency plans, coordination with other emergency plans, if any, at the urban scale may be established and opinions of the relevant ministries, public institutions, universities, professional organizations, and local administrations shall be gathered". This article should be considered as "governance" centered-activities with a participatory understanding. Furthermore, municipalities can create joint programs with ministries, administrations, institutions, and organizations by taking the necessary measures for the training of the people in accordance with the plans (Municipality Law 53, 2005). Municipalities are authorized to provide necessary assistance and support to these regions in the event of a fire and natural disasters occurring not only within their administrative boundaries but also outside the municipal boundaries. However, there are no indicators that can be examined in the whole of Turkey on these subjects that need to function in line with the city councils.

Another democratic configuration to enable voluntary participation is the "City Council" (Municipality Law 76, 2005). The City Council is an advisory unit with an important mission in the creation of local politics. The views created in the Council for sustainable urban life are put on the agenda in the municipal assemblies and then turned into a parliamentary decision. This structure reveals the organic relationship between the "Municipality Assembly" as the decision-making body and the City Council as its advisory unit in municipal organizations. However, despite the changes in the regulation since 2006 when the regulation on City Councils first came into force, indicators measuring the efficiency of city councils on a country scale are still not established. For example, a general administrative assessment has not been carried out in Turkey, indicating that the views formed during the city council have been taken numerically into the agenda of the assembly and turned into decisions.

In municipalities, the chief officers of the neighborhoods will be linked with outcomes and in terms of responsibilities such as "the chief officer of the neighborhood, with the voluntary participation of the neighborhood residents, is responsible for defining common needs, improving the life quality of the neighborhood, managing its relations with the municipality and other public institutions and organizations, presenting reviews on subjects related to the neighborhood..." support will mean more strength. However, the efficiency of voluntary work is not measurable in different structures, neither in the neighborhood administration nor in the city council, etc. This brings the question of how successful people can be during the works carried out

in disasters based on social cooperation and directed by the manager and the answer to this question entails suspicion and hesitation.

The efficiency measurement of the studies aimed at determining urban politics and contributions is among the responsibilities of primarily the Ministry of Interior and the central and local administrations. According to the Urban Administration Law No. 5442 of 1949, the Governor is entitled to request from the relevant staff and audit the measures to ensure protection of general and personal properties belonging to the State, city, municipality, village and other public legal entities from fires and similar dangers, keeping these properties in good condition, making them gain value and manage them in a good way. The governor is also the chief of all general and special law enforcement teams and organizations located within the boundaries of the city. Preventing people from committing crimes means taking necessary measures to protect public order and security. In addition, the governor also ensures and executes all border and coastal safety and border-related affairs in accordance with the provisions in effect (Provincial Administration Law 11, 1949).

The cooperation of individuals and communities is very important in the healthy development of cities. Central and local administrations need to take care of the issues that enable the existence of democratization. Due to internal and external immigration, the presence of different cultural groups is increasingly important in ensuring social peace within a healthy city configuration. Increasing people's ability to work as individuals, in groups or as organizations for their common purposes, also called the social capital, (Sargut, 2006), or their overall capacity in professional life, economics, organizational behavior, political science, and sociology has continuously been the subject of studies. To develop and sustain society's ability to make decisions and work together with the help of continuous learning tools, to develop democratic outcomes are all important as a good strategy leading to the formation of an ideal society. The ever-evolving concept of "human and social capital" also defined as "the total of tangible and intangible values", is at some point, the view and success regarding democracy of countries in the network of relations of the organization and its environment such as the administration approach of the country and relations of judicial decision-makers with the society.

4. RESILIENCE IN DISASTERS AND SOCIAL VALUES ANALYSIS

This research entitled "Public Administration's Persuasion Capacity, Resilient Society and Early Warning in Disasters in a Risk Society" (Karaman, 2019), is a research study that had not been prominent in Turkish literature. And no study on public persuasion capacity in disasters has been found out in international literature. It is aimed to measure public opinion's reactions to the issue in Turkey.

The content of the tables used in this research was based on data collected from 285 respondents over 18 years of age, through the web, between December 24, 2018, and January 14, 2019. Data evaluation was done through SPSS and Version 24.0 had been used. Respondents of this survey are from 57 different cities in Turkey. Among those respondents who have identified their cities, here is a distribution based on predominance: Five people on average from Izmir, Istanbul, Ankara, Manisa, Balikesir, Kastamonu, Canakkale; three people on average from Afyon, Burdur, Corum, Denizli, Erzincan, Eskisehir, Erzurum, Hakkari, Konya, Tekirdag, Kayseri, Samsun; and 1 or 2 people on average from the cities of Amasya, Adana, Adiyaman, Ardahan, Afyon, Aydin, Antalya, Bartin, Bingol, Bitlis, Bolu, Bursa, Burdur, Corum, Duzce, Elazig, Gaziantep, Gumushane, Isparta, Izmit, Mugla, Nigde, Kutahya, Kahramanmaraş, Kayseri, Malatya, Mersin, Mus, Ordu, Rize, Sinop, Sivas, Sanliurfa, Sakarya, Trabzon, Van. Looking at this distribution, it is possible to say that views were obtained from all around Turkey.

The evaluations in the theoretical part of the subject have been mostly turned into questions. The questions measure trends in individual behaviors and social solidarity and aim to find correlations. Below, the clues to the development direction of individual and social integrity in the context of the willingness to social solidarity in disasters are evaluated with the survey.

4.1. Profile of respondents

As it can be seen from Table 1, 74% of the respondents were women and 25.6% were men.

Table 1. Gender of Respondents

		Number / n	Percentage %	Current Percentage %	Cumulative Percentage %
Value	Female	211	74.0	74.0	74.0
	Male	73	25.6	25.6	99.6
	Other	1	0.4	0.4	100.0
	Total	285	100.0	100.0	

The most participation in the survey, which was open to groups over the age of 18, was from the 26-40 age group with a rate of 50.5%. The second prominent group with a rate of 38.9% is the group formed by people that could continue their educational years. The third place is composed of the group between the ages of 40 and 60, with 10.2% (Table 2).

Table 2. Age

		Number / n	Percentage %	Current Percentage %	Cumulative Percentage %
Value	18-25	111	38.9	38.9	38.9
	26-40	144	50.5	50.5	89.5
	41-60	29	10.2	10.2	99.6
	61+	1	0.4	0.4	100.0
	Total	285	100.0	100.0	

Regarding the education level (Table 3), higher education has the first place with a ratio of 60%. Master's education forms 28.4% and Ph.D. accounts for 6% of the respondents. High school graduates and associate degree graduates are low, with a ratio of 5.3% of the total. Considering their rates of participation in this survey, the educated group's evaluations have become prominent.

Table 3. Education

		Number / n	Percentage %	Current Percentage %	Cumulative Percentage %
Value	Elementary school graduate	1	0.4	0.4	0.4
	High School graduate	5	1.8	1.8	2.1
	Associate degree	10	3.5	3.5	5.6
	Undergraduate degree	171	60.0	60.0	65.6
	Master's degree	81	28.4	28.4	94.0
	PhD	17	6.0	6.0	100.0
	Total	285	100.0	100.0	

When the geographical areas (Table 4) of the respondents were examined, urban areas came in first place with a ratio of 81.1%. Rural residents form 18.9% of the respondents. 22.5% of the respondents have described their settlement as coastal/on the shore and 10.2% of them stated that they live in highlands. Urban and rural areas may also be considered as coastal and/or mountainous areas.

Table 4: Geographical Feature of The Inhabited Area

		Number / n	Percentage %	Current Percentage %
Value	Urban	231	81.1	81.1
	Rural	54	18.9	18.9
	Total	285	100.0	100.0
	Highlands	29	10.2	10.2
	Coastal-shore	64	22.5	22.5

It is a fact that settlements with several features can encounter different types of disasters at the same time. Respondents are also aware of this fact. For respondents, the description of disaster generally refers to "dangerous events of nature, chaos, and desperation, extraordinary situation, calamity, destruction, death, loss of property, unsafe environments, damage, disruption of public order, events that cause fear of earthquakes, floods and fires". These descriptions reflect actual experiences.

In the cities inhabited, the types of disasters (Table 5) entail both natural and human-induced hazards. Depending on the experience, new disaster types in Turkey have also been sampled.

Table 5: Types of Disasters in The City You Inhabit

	Number / n	Percentage %	Current Percentage %
Fire	120	42.1	42.1
Inundation	92	32.3	32.3
Flood	83	29.1	29.1
Earthquake	196	68.8	68.8
Severe storm	59	20.7	20.7
Tsunami	5	1.8	1.8
Hurricane	13	4.6	4.6
Infestation	12	4.2	4.2
Nuclear threat	6	2.1	2.1
Terrorist attacks	36	12.6	12.6
Other	12	4.2	4.2
Total	285	100.0	100.0

Respondents predicted a nuclear threat, albeit at a low rate, of 2.1%. Although terrorist attacks have a low rate compared to other types of disasters, they are still sampled as a human-induced threat with a rate of 12.6%. This is an acceptable value in Turkey's risk conditions. The earthquake is placed as the first disaster with a ratio of 68.8%. The rate of severe storms (20.7%), tornadoes (4.6%), insect infestations (4.2%) and tsunamis (1.8%), which were not on the agenda before but were still taken into account by the respondents due to the fact that they had experienced these disasters, have the stated ratios. Other types of disasters are depicted as landslides, rockfalls, ship and plane crashes, snow, blizzards and, drought.

4.2. Individual behaviors in disasters

Individual behaviors and competencies are defined as human capital. Table 6 shows the prioritization by respondents of the individuals with needs.

Table 6. Which of The Following Groups Are to Be Prioritized While Saving from The Disasters? 3 Options

Groups	Number / n	Percentage %	Current Percentage %
Women	72	25.3	25.3
Children	238	83.5	83.5
Disabled people	244	85.6	85.6
Seniors in need of care	199	69.8	69.8
Men	4	1.4	1.4
Homeless people without families	43	15.1	15.1
Pets	11	3.9	3.9
Stray animals	30	10.5	10.5
Other	5	1.8	1.8
Total	285	100.0	100.0

The first group that is prioritized while saving or rescuing from a disaster (Table 6) is the group of disabled people with a rate of 85.6%. This group is followed by children with 88.5% and the elderly in need of care with 69.8%. Women were sampled with a rate of 25.3%. The prioritization ratio of homeless people is 15.1% while stray animals are prioritized by 10.5% of the respondents. Pets are prioritized by 3.9% Men are prioritized by only 1.4% of the respondents. The group "other" refers to living things and people in need of help. In the literature, women and children are often prominent among vulnerable groups for underdeveloped poor countries, such as islands in the Pacific Ocean, and this group is considered to be exposed to all kinds of dangers.

Undoubtedly, Turkey is not among poor countries. It is pleasing that women are not considered to be in the group which generally requires a great deal of help in disasters. However, the fact that women coming out of the survey among vulnerable people reveals the necessity of regional social profile studies, especially in the provinces receiving internal and external immigration.

Table 7. Willingness to Become a Local Disaster Volunteer

		Number / n	Percentage %	Current Percentage %	Cumulative Percentage %
Value	Yes	234	82.1	82.1	82.1
	No	51	17.9	17.9	100.0
	Total	285	100.0	100.0	

Regarding the issue of being a local disaster volunteer (Table 7), the participants were asked if they would like to be a local disaster volunteer (work as a volunteer after disasters). 82.1% of respondents reacted positively, saying yes. The group that is not eager to volunteer has a ratio of 17.9%. However, when it is remembered that the respondents are educated people and have accessed this survey on the internet with interest, it is necessary to evaluate these high rates together taking this fact into account. As a matter of fact, the proportion of the choice to be a national disaster volunteer declines further than choosing to become a local volunteer. This is seen in Table 8.

Table 8. Willingness to Become a National Disaster Volunteer

		Number / n	Percentage %	Current Percentage %	Cumulative Percentage %
Value	Yes	201	70.5	70.5	70.5
	No	84	29.5	29.5	100.0
	Total	285	100.0	100.0	

When the participants were asked if they would like to be a national disaster volunteer (volunteer after disasters going anywhere in the country), 70.7% of the respondents answered positively about their willingness to be a national disaster volunteer (Table 8). The non-voluntary group composes 29.5% of the respondents. Although volunteering rates are high, being enthusiastic is not enough for disaster administration, taking on duties, undoubtedly requires being competent.

Table 9. Reasons for Not Being a Disaster Volunteer

	Number / n	Percentage %	Current Percentage %
Not having the proper training on the subject	47	16.5	56.0
Presence of elderly, disabled relatives at home	2	0.7	2.4
Presence of children at home	10	3.5	11.9
Not wanting to help strangers	2	0.7	2.4
Fear of being harmed by strangers	1	0.4	1.2
Lack of time for training	12	4.2	14.3
Other	10	3.5	11.9
Total	84	29.5	100.0
People who are willing to help	201	70.5	
Overall	285	100.0	

The main reason for not wanting to be a disaster volunteer (Table 9) is the lack of education on the subject for 56% of the respondents. Having elderly and disabled relatives (2.4%) and young children (11.9%) at home are also among the causes of reluctance. Lack of time for education is an obstacle for 14.3% of the respondents. Unwilling to help people they do not know, fear of being harmed by strangers, and a group of 10% point to the option of "other". The issues underneath the option "other" are mainly about not liking to take orders, not being patient and having officers already working on the issue.

Table 10. Willingness to Be Trained in Disaster Administration

		Number / n	Percentage %	Current Percentage %	Cumulative Percentage %
Value	Yes	259	90.9	90.9	90.9
	No	26	9.1	9.1	100.0
	Total	285	100.0	100.0	

The willingness to be trained in disaster administration (Table 10) is 90.9%. Those who stated that they did not want to be trained compose 9.1% of the respondents. This willingness to be trained can be explained by the need to be able to help their family and their immediate environment more consciously through disaster administration training.

Table 11. Preferred Subjects as Disaster Volunteers (3 Topics of Priority)

Subjects of voluntary work	Number / n	Percentage %	Current Percentage %
Distributing clothes	163	57.2	57.2
Cooking, making soup, etc.	74	26.0	26.0
Distributing food	132	46.3	46.3
Taking care of the disabled and the elderly	43	15.1	15.1
Taking care of children	97	34.0	34.0
Search and rescue, emergency help services	132	46.3	46.3
Post-disaster cleaning (garbage, ruins, hazardous material, etc.)	28	9.8	9.8
Other	8	2.8	2.8
Total	285	100.0	100.0

According to Table 11, depicting the areas in which people could help after disasters as volunteers, the distribution of aid, such as clothing, is the biggest interest group, with 57.2%. Distributing food and joining the search and rescue services are chosen by 46.3%, taking care of children composes 34% and taking care of disabled or elderly people represent 15.1% of the respondents. Post-disaster cleaning, with its ratio of 9.8% represents an area of help and has a value. The option "other" includes teaching activities and psychological support as main ideas.

Table 12. Having Been Trained On the Subjects Wished to Work as A Disaster Volunteer

		Number / n	Percentage %	Current Percentage %
Value	Yes	65	22.8	22.8
	No	220	77.2	77.2
	Total	285	100.0	100.0

The inquiry into the existence of training on the subjects preferred by those who wish to be disaster volunteers (Table 12) is not pleasant at all. When participants were asked whether they were trained in the subjects on which they want to work as a disaster volunteer (cooking, child care, etc.), only 22.8% of the respondents stated that they had relevant training. It is observed that the training was largely marked in search-and-rescue and cooking areas.

4.3. Social synergy in disasters

In this section, issues related to organization, neighborhood relations, and social sensitivities are examined.

Table 13. The Idea of Sufficiency of Individual Effort in Disasters

		Number / n	Percentage %	Current Percentage %
Value	Yes	109	38.2	38.2
	No	140	49.1	49.1
	I have no idea	36	12.6	12.6
	Total	285	100.0	100.0

When the participants were asked if they think that individual effort will be sufficient in disasters (before, during and after), 38.2% of the respondents believe that individual effort is enough in disasters, whereas 49.1% of those think it is insufficient (Table 13). Respondents who do not have an idea on this question are 12.6%. It can be realized from these results that in disaster administration training, the importance of individual efforts should be addressed. 61.7% of the respondents composed of the ones who said "No" and the ones who do not have any idea on the matter, should be considered with a viewpoint that sees individual behaviors do not create effective benefits and the society has now awareness that working together creates "social resilience".

Ensuring solidarity through social media support in disasters shows the capacity of the society. The use of social media and leadership are among the popular topics of literature.

Table 14. The Necessity of Informal Social Organization Through Social Media in Disasters

		Number / n	Percentage %	Current Percentage %
Value	Yes	250	87.7	87.7
	No	14	4.9	4.9
	I have no idea	21	7.4	7.4
	Total	285	100.0	100.0

Respondents who believe that there should be an unofficial social organization through social media in disasters (Table 14) have a significant proportion, with 87.7%. Those who do not have an opinion compose 7.4% of the respondents, while those who do not need social organization make up only 4.9% of them.

Table 15. The Need for Leaders in Unofficial Social Organizations in Disasters

		Number / n	Percentage %	Current Percentage %	Cumulative Percentage %
Value	Yes	199	69.8	69.8	69.8
	No	50	17.5	17.5	87.4
	I have no idea	36	12.6	12.6	100.0
	Total	285	100.0	100.0	

The question of whether a leader is required in unofficial social organizations in disasters was affirmatively answered by 69.8% (Table 15). By contrast, the group that says "no" is 17.5% and those without an idea are 12.6% of the respondents. In this case, 30.1% of the participants are prone to a leaderless organization.

88.1% of the respondents said "yes" to the question on the benefit of neighbors to each other in disasters (Table 16). This ratio points to an important "trust" element. The respondents who did not agree compose 3.9% of the total. Those without an opinion are in second place with 8.1%.

Table 16. Neighbors Benefiting from Each Other in Disasters

		Number / n	Percentage %	Current Percentage %	Cumulative Percentage %
Value	Yes	251	88.1	88.1	88.1
	No	11	3.9	3.9	91.9
	I have no idea	23	8.1	8.1	100.0
	Total	285	100.0	100.0	

In general, the low threshold of trust in Turkey is a prominent issue in various research studies. In disasters, however, trust in the neighbor is an important element that provides social solidarity. In raising the threshold of trust in society, various socio-cultural projects in which neighbors can communicate with each other are essential. Especially the chief officers of the neighborhoods and municipalities are the local government structures of strategic importance at the closest level to the public.

Although it is predicted that support can be received from a neighbor if needed in disasters, it is still seen in Table 17 that respondents will give priority to their own family in disasters. From the scenes that occur at the exact moments of disaster, it can be said that those in danger will tend to help each other starting from whomever they have at the closest point. While this pattern of behavior is also associated with basic civics education, personality traits also play an important role. For example, the mandatory provisions in the Village Law of 1924, such as "if there is flooding in the village, residents have to come together and change the course of the flood" (Village Law 13/24, 1924) "to help a man in water or in the face of another disaster, if you are capable of saving him, help him." (Village Law 13/32 1924) are good examples of the basic teaching of positive human behavior, starting coming from rural areas.

Table 17. Groups of Rescue Priority in Disasters

Groups		Number / n	Percentage %	Current Percentage %
Value	My own family	222	77.9	77.9
	My neighbors	1	0.4	0.4
	The people I know	8	2.8	2.8
	I would save myself	39	13.7	13.7
	Pets	2	0.7	0.7
	Other	13	4.6	4.6
	Total	285	100.0	100.0

The groups with rescue priority in case of a disaster (Table 17) is predominantly occupied by people who would help their own families first, with a ratio of 77.9% whereas the respondents who would save themselves constitute 13.7%. Acquaintances were preferred by 2.8%, while neighbors were preferred by only 0.4% (by one respondent). The subjects collected under the umbrella option "other" are the people considered to be from the family, the ones in need at the moment of disaster and the ones who could be helped and rescued. It was observed that the options of helping their own family and saving themselves were independent of the age variable. The rescue preferences of those surveyed are predominantly their families.

Table 18. Tendency to Help Unfamiliar People in Disasters

		Number / n	Percentage %	Current Percentage %
Value	Yes	280	98.2	98.2
	No	2	0.7	0.7
	I have no idea	3	1.1	1.1
	Total	285	100.0	100.0

A significant group of 98.2% stated that in case of disasters they would help those around them even if they did not recognize them (Table 18). Those who say they will not help unfamiliar people and those who have no idea compose 1.8% of the total.

As for institutions that are reliable in obtaining information in early warnings of disasters (Table 19), it is observed that respondents were largely unsure of which institutions they could gather information from and that they do not have a specifically prominent source.

Table 19. Reliable Institutions When Obtaining Information During Early Warnings of Disasters

Units		Number / n	Percentage %	Current Percentage %
Value	Municipality	28	9.8	9.8
	Governor's office	52	18.2	18.2
	Chief office of the neighborhood	1	0.4	0.4
	Non-governmental organizations	35	12.3	12.3
	Presidency	24	8.4	8.4
	Social media activists	8	2.8	2.8
	Statements of opinion leaders	1	0.4	0.4
	Presidency of disaster and emergency administration	125	43.9	43.9
	Security/Law enforcement teams	7	2.5	2.5
	Other	4	1.4	1.4
	Total	285	100.0	100.0

Disaster and Emergency Administration with a ratio of 43.9% (Table 19) is considered to be the most reliable institution for gathering information from. This rate is followed by the governor's office with 18.2% and non-governmental organizations with 12.3%. The municipalities are in third place with 9.8%. The presidency is at 8.4% and the social media activists are chosen by 2.8% of the respondents. Security or law enforcement teams were preferred by 2.5% of the respondents which is a low ratio. The chief officers of the neighborhoods and opinion leaders are both preferred from 0.4% of the respondents. The option of "other" was filled with the instinct of animals and scientific institutions. The fact that values are dispersed among different institutions and even the inclusion of individuals in preferences, suggests that the influence of basic institutions on persuasion may be weak.

In fact, although serious warnings were issued in public administration against the possibility of storms in Izmir, the warning was not effective for people in general and they went to picnics at the seaside since the weather was warm enough. Instead of broadcasting meteorological warnings, "no problem/danger" statements given by some unofficial have been presented by the media and this played a crucial role in making people choose to abandon risk governance and caution. However, it could be predicted that Turkish citizens would have been more reliant on the principle of prudence if visuals (storm and tornadoes) of neighboring Greece's experience with a storm at the same time interval were broadcasted through media. Experience and "lessons learned" have an effect on behavior. However, the frequency of having these is also important.

Table 20. Reliable Institutions in Forcing Managerial Obedience in Early Warnings of Disasters

Units	Number / n	Percentage %	Current Percentage %
Value			
Statements of the governor's office	101	35.4	35.4
Statements of the municipality	15	5.3	5.3
Chief office of the neighborhood's statements	1	0.4	0.4
Presidency	39	13.7	13.7
Non-governmental organizations	12	4.2	4.2
Social media activists	2	0.7	0.7
Statements of opinion leaders	1	0.4	0.4
Presidency of disaster and emergency administration	101	35.4	35.4
Security/Law enforcement teams	4	1.4	1.4
None	7	2.5	2.5
Unanswered	2	0.7	0.7
Total	285	100.0	100.0

Regarding the managerial obedience to forcing instructions such as obliging people to leave their homes (Table 20), it is observed that the ratio of obeying managerial authorities is high. The statements of the Presidency of Disaster and Emergency Administration and the governor's office have the same ratio which is 35.4% of the respondents. In fact, as it is known, the decision-maker in the Presidency of Disaster and Emergency Administration is the governor. From this point of view, the ratio of the statements of governor rises above 70%. Presidential statements are chosen by 13.7% of the respondents. Those who say none compose 2.5% of the participants. It is understood that the competent units in the disaster process are not properly known by the educated people who took part in the survey.

Effective institutions that persuade in managerial obedience (Table 21) are predominantly official institutions with a ratio of 69.1%. Experts and faculty members were ranked second by 27.7% of the respondents. Only 2.1% of the respondents are persuaded by people who are dressed formally and 0.4% of the respondents obey local opinion leaders. It is possible to predict that in disasters, being formally dressed in the streets would still not avoid problems and that it is safer to transfer the instructions through official general communication. Experts also have significant persuasion potentials.

Table 21. Dynamics That Persuade While Ensuring Managerial Obedience

Values	Number / n	Percentage %	Current Percentage %
People (experts, faculty members)	79	27.7	27.7
Institutions	197	69.1	69.1
People in formal clothes	6	2.1	2.1
Local opinion leaders	1	0.4	0.4
Other	2	0.7	0.7
Total	285	100.0	100.0

From time to time, some expert statements, such as the one saying “there will be no storm, nothing to fear” before the disaster, eliminate the “persuasion” effect of the official statements and create a “troubled agenda”. It is necessary to remind that people not following instructions for the purposes of curiosity and for being able to take an engaging photo on social media, can sometimes result in death.

Table 22. Reliable Institutions in Disaster Training

Units	Number / n	Percentage %	Current Percentage %
Value			
Governor's office	125	43.9	43.9
Municipality	92	32.3	32.3
Chief office of the neighborhood	18	6.3	6.3
Office of mufti	18	6.3	6.3
Presidency	63	22.1	22.1
Non-governmental organizations	118	41.4	41.4
Experts	112	39.3	39.3
Presidency of disaster and emergency administration	209	73.3	73.3
Security/Law enforcement teams	40	14.0	14.0
Other	2	0.7	0.7
Total	285	100.0	100.0

The Presidency of Disaster and Emergency Administration with a ratio of 73.3% (Table 22) is considered to be the most prominent institution for disaster training. This option is followed by the governor's office with 43.9%. After the governor's office come non-governmental organizations with 41.4% and experts with 39.3%. Non-governmental organizations and experts have the credibility to do effective work in disasters and because of their knowledge. Those who prefer to be trained by security /law enforcement teams compose 14% of the respondents. The chief office of the neighborhood and religious units such as the Office of Mufti are chosen by 6.3% of the respondents.

The positive effect on participants of religious elements collaborating with the chief officer of the neighborhood was especially visible in the earthquake that happened in Van in 2011. When asked whether they knew how the early warnings of disasters will be made by the public administration, 61.4% of the respondents stated that they did not know and 38.6% said they knew.

This study shows that although the respondents were highly educated, they did not know the priority authorities in disasters and that the channels for gathering information were not properly organized in their minds. These rates indicate that the persuasion effect of executive institutions and organizations may not be strong enough. Survey results show the importance and necessity of authorized institutions and organizations in disasters to work on informing the public through the use of media, public spots on TV and etc. This issue has revealed the importance of giving a place to reliable institutions in disaster training. Reliable tools of communication in disaster warnings (Table 23) have been identified as another problematic issue.

Table 23. Reliable Tools of Communication in Disaster Warnings

Communication tools	Number / n	Percentage %	Current Percentage %
Value			
Radio	16	5.6	5.6
Telephone/Mobile phone	56	19.6	19.6
Internet access	26	9.1	9.1
Siren-like audible warning	99	34.7	34.7
Social media networks I use	2	0.7	0.7
Television	52	18.2	18.2
Printed newspapers	7	2.5	2.5
Verbal warnings made by various tools	22	7.7	7.7
Other	5	1.8	1.8
Total	285	100.0	100.0

In this inquiry about which tools are prioritized in disaster warnings (Table 23), siren-like audible warning preference is ranked first by 34.7% of the respondents among communication tools. The telephone / mobile phone is the second most reliable communication tool with 19.6%. Television is in third place, chosen by 18.2% of the respondents. Among other communication tools, the internet has a ratio of 9.1% and the alerts made by various means compose 7.7% of the respondents. These values

varying accordingly to the tools of communication also indicate that there is not any method of administration for emergency warnings in disasters and/or that the methods are unknown. Therefore, it is observed that developing a rule stating to rely on mass communication tools such as radio, television after hearing the warning with a siren in emergencies is essential.

Although mobile phones are generally preferred, it is thought that it would be more appropriate to develop formal communication mechanisms in terms of reliability. In the assessment of disaster resilience in the buildings in which individuals live (Table 24), experience related to the known effect of disaster type and resilience status of the buildings were correlated.

Table 24. Factors Against Which the Resilience Of The Building Is Considered To Be Strong

Factors	Number / n	Percentage %	Current Percentage %
Value Strong wind	219	76.8	76.8
Storm	178	62.5	62.5
Earthquake	95	33.3	33.3
Hurricane	77	27.0	27.0
Tsunami	62	21.8	21.8
Flood, torrent	184	64.6	64.6
Fire	55	19.3	19.3
Infestations	72	25.3	25.3
Nuclear attacks	20	7.0	7.0
Terrorist attacks	29	10.2	10.2
Other	10	3.5	3.5
Total	285	100.0	100.0

Whether the buildings are resilient to various disasters (Table 24), tsunami (by 21.8%), tornado (by 27%), earthquake (by 33.3%) are factors on which the respondents do not feel certain depending on the type of disaster. The buildings are considered to be reliable and resilient against strong winds (by 76.8%), flooding and torrents (by 64.6%) and storms (by 62.5%). Infestations (25.3%), nuclear attacks (7.0%) and terrorist attacks (10.2%) were also cited as danger issues. The respondents who chose the option "other" believe that their buildings are not resilient in any way.

Table 25. The Factors Thought to Be Resilient Against Disasters in The Inhabited Region

Factors	Number / n	Percentage %	Current Percentage %
Value Strong wind	170	59.6	59.6
Storm	143	50.2	50.2
Earthquake	82	28.8	28.8
Hurricane	95	33.3	33.3
Tsunami	100	35.1	35.1
Flood, torrent	122	42.8	42.8
Fire	58	20.4	20.4
Infestations	91	31.9	31.9
Nuclear attacks	43	15.1	15.1
Terrorist attacks	55	19.3	19.3
Other	11	3.9	3.9
Total	285	100.0	100.0

Resilience estimates for the inhabited region (Table 25) differ according to disaster types. Resilience rates are 35.1% for tsunami, 33.3% for tornado and 28.8% for earthquakes. The reliability of regional conditions remains moderate in terms of strong wind (by 59.6%), flood and torrents (by 42.8%) and storm (by 50.2%). Regions are considered to be resilient against infestations by 31.9%, nuclear attacks by 15.1% and terrorist attacks by 19.3% of the respondents. The option "other" entails extreme hot weather and since the respondents believe that this option encompasses all subjects, the ones who think their region is not resilient against disasters chose this option. Note that although there are people living in mountainous areas, rockfalls and landslides have not been discussed.

Table 26: Rating of Subjects Considered to Be Strong in Social Resilience

Subjects	Number / n	Percentage %	Current Percentage %
Economy	103	36.1	36.1
External immigration	96	33.7	33.7

Immigration towards the country	99	34.7	34.7
Natural disasters	116	40.7	40.7
Terrorist attacks and its damages such as death, etc.	106	37.2	37.2
Cyber-attack damages	72	25.3	25.3
Socio-cultural threats	153	53.7	53.7
Fundamental rights and freedoms	108	37.9	37.9
Other	14	4.9	4.9
Total	285	100.0	100.0

In subjects where social resilience is considered to be strong (Table 26), having the capacity to be resilient against socio-cultural threats is chosen by 53.7% of the respondents making it the factor at the top. The danger of cyber-attacks has been recognized and is thought to be the weakest link, by 25.3%. Values given to population mobility issues such as external immigration (33.7%) and internal immigration (34.7%) are low, and immigrations are thought to undermine social resilience. Issues of fundamental rights and freedoms (by 37.9%) are included in risk analysis. Human-induced terrorist attacks (37.2%) and natural disasters (40.7%) are seen as the causes of non-resilience. 36% of the respondents claim that the nation is resilient in the economy. The option "other" was chosen by the hopeless group composing 4.9% of the respondents which believes "we are bad" in all areas. Resilience rates are low in terms of subjects that reveal indicators of disaster resilience. Excluding the option "other", the highest and lowest ratios are respectively 53.7% and 25.3%. And as a result, these rates show that society has doubts about whether they would be resilient against possible risks. The rates also indicate that there is a need for informing society and work on activities that could increase the capacity.

5. EVALUATION AND CONCLUSION

This article aims to evaluate especially early warning, social resilience and the persuasion capacity of the administration during disaster administration process. The personnel employed in the official institutions are essentially employees of the administration and planning is carried out within the expectations of rational behavior from them. The functionality of public personnel in disasters is not the subject of this study. However, disaster administration often requires frequent risk analysis through a wide spatial and social profile. This fact requires that we give importance to the consideration of the contribution in achieving social resilience in disasters given by individuals who are not officials but who have different abilities.

The main issues that strengthen social resilience are neighbor relations, people's trust in each other and in the administration and the public ability to organize instinctively. According to the survey results of this study, the "expectation of solidarity" is high. In the Turkish public administration organization, participatory and negotiation-oriented mechanisms that enable social democratization are present in various corporate organizations on local and central levels. The most effective and widespread mechanism in social participation is the Yerel Gündem 21 (Local Agenda 21) activities initiated by the 1996 Istanbul Habitat II studies. Yerel Gündem 21's (Local Agenda 21) activities were legalized in 2006 linked with municipality organizations acting as advisory units named city councils. These structures, in their nature and philosophy, are meeting and negotiating areas and have the ability to enhance social solidarity with the concepts of neighbor relations, residents coming from the same home town. Societies that rely on each other and are in solidarity can quickly organize in risky and/or crisis environments that could arise due to various reasons. It is predicted that various dangers, economic, structural losses and etc. that could be encountered during and after disasters can be strongly resisted through social solidarity. Indeed, the "the public factor" is considered to be an important element in international treaties and agreements and encompasses the main subject of the agreements with its "participatory and negotiation-oriented democracy" feature.

Undoubtedly, the social and administrative reflex requires, as a society, to benefit from its own resources. Social gatherings also serve to receive information about global developments and conduct necessary educational activities. Democratic participatory mechanisms created in this way and protected by legislation strengthen local capacity. In this study, the ethic values of a society that has democratic mental state and public, private and civil partnership studies that would improve the social capacity are emphasized. It is also crucial that the above-mentioned democratic mechanisms are operated by residents. In addition, the administration needs to develop participation indicators that will improve efficiency and new strategic tactics to address the shortcomings that will arise. It is known that there are inadequacies in this regard in Turkey.

Studies on training should not be limited to being least affected or damaged by the hazards depending on the disaster types. The human factor is also an extremely important dimension in disaster administration. Through socio-cultural studies, "socio-cultural reciprocity" should be established in society. In the local area, especially municipalities' main strategic task is to develop training that will enable ethical cooperation in the society through socio-cultural studies.

The functional benefits of inter-institutional integrated studies in terms of disaster resilience are well-known. Institutional training creates an area where people care more and follow the administration's instructions during the disaster process. However, in terms of social reaction and administrative measures, especially in meteorological disasters, it is important for the administration to identify known early warning methods and to ensure that knowledge about them is spread at all levels. The lack of common knowledge in the society regarding disaster administration prioritized and trusted institutions and their effects are among the results of this study.

Due to the effects of climate change, new types of disasters are now encountered. The importance of making structural and social preparations, according to different disaster types in the inhabited areas is clear. Disaster administration training requires an effort supported by interdisciplinary and transdisciplinary studies. Since society does not know enough about new disaster types, almost every sector suffers damage. Disaster administration in gender-independent social integrity requires widespread learning and sharing among all ages and education levels. The information which is generally earthquake-oriented is not sufficient for other disasters such as tornadoes, storms, floods. Educational institutions such as universities, as well as the press and media, have more or less started to work on informing.

The issue of managing disasters is not solely based on directly ensuring the safety of individuals. Especially, the agricultural sector is not prepared for new developments and is adversely affected by meteorological disasters. Therefore, from an industrial standpoint, it is also important to develop new production tactics and to successfully manage financial administration relationship networks. Important agendas of interdisciplinary scientific meetings should also be presented to public opinion through non-formal education tools. The development of digital communication networks makes social accessibility possible in digital training. The global impact of disasters around the world has further increased the importance of interdisciplinary training. Information on disasters and instructions are subjects under the supervision of public administration and support from experts and organizations are required in order to inform the public in a proper way. As a final analysis, it is thought that the lack of clear information about which institutions and organizations are the primary authorities in disasters will undermine the persuasion power of the public administration. In terms of a sustainable healthy society, it is important for people to be aware of the dangers and fulfill their own duties with the awareness of responsibility.

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