

FACTORS DETERMINING DATA PROTECTION LAW AWARENESS:  
THE CASE OF TURKEY

HÜSEYİN SERKAN YILMAZ

BOĞAZİÇİ UNIVERSITY

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Hüseyin Serkan Yılmaz

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The thesis of Hüseyin Serkan Yılmaz

has been approved by:

Assoc. Prof. Bertan Yılmaz Badur  
(Thesis Advisor)

\_\_\_\_\_

Assist. Prof. Özgür Döğerlioğlu

\_\_\_\_\_

Assist. Prof. Çağla Özen  
(External Member)

\_\_\_\_\_

January 2022

## DECLARATION OF ORIGINALITY

I, **Hüseyin Serkan Yılmaz**, certify that

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## ABSTRACT

### Factors Determining Data Protection Law Awareness: The Case of Turkey

Data protection is one of the most important subjects that reshape the people's world as an individual, employee and customer. Different pioneer countries in the world have specific data protection laws and regulations. In this research, the relationship between data protection law in Turkey namely KVKK, Kişisel Verilerin Korunması Kanunu in Turkish, and 3 different types of awareness namely individual awareness, employee awareness and customer awareness with their specific features are examined using statistical methods. This research answers the question of “What is the degree of KVKK awareness based on three different awareness types. “The literature gap regarding KVKK awareness is aimed to be fulfilled with this research. Socio-demographical factors are taken as the key determinants of individual awareness. As expected, gender is not an effective factor over individual awareness. Interestingly, income does not have influence over individual awareness. Furthermore, age and education and region have been categorized as a determinant factor for individual awareness. Company incentives and trainings, government regulations effect is taken into the consideration while examining the relationship between employee awareness and KVKK awareness. Company incentives are not influential over KVKK awareness, but the existence government regulations may affect this relationship. Application usage frequency is assumed as a factor that might change the relationship between KVKK awareness and customer awareness. All in all, individual awareness, customer awareness and employee awareness have been found as a key determinant of KVKK awareness in Turkey.

## ÖZET

### Veri Koruması Hukuku Bilincini Belirleyen Faktörler: Türkiye Vakası

Veri korunması birey, çalışan ve müşteri olarak günümüz dünyasını yeniden şekillendiren en önemli konulardan biridir. Dünyadaki farklı öncü ülkelerin belirli veri koruma yasaları ve düzenlemeleri vardır. Bu araştırmada, Türkiye'deki veri koruma kanunu olan KVKK, Kişisel Verilerin Korunması Kanunu, bireysel farkındalık, çalışan Farkındalığı ve müşteri Farkındalığı olmak üzere 3 farklı farkındalık türünün kendine özgü özellikleri ile ilişkisi göze alınarak istatistiksel yöntemler kullanılarak incelenmiştir. Bu araştırma, üç farklı farkındalık türüne göre KVKK farkındalığının derecesi nedir? sorusuna cevap vermektedir. “Bu araştırma ile KVKK farkındalığı ile ilgili literatür boşluğunun doldurulması amaçlanmaktadır. Bireysel farkındalığın temel belirleyicisi olarak sosyo-demografik faktörler ele alınmaktadır. Beklendiği gibi cinsiyet, bireysel farkındalık üzerinde etkili bir faktör değildir. İlginç bir şekilde, gelirin bireysel farkındalık üzerinde etkisi yoktur. Ayrıca yaş, eğitim ve bölge bireysel farkındalık için belirleyici faktörler olarak kategorize edilmiştir. Çalışan bilinci ile KVKK bilinci arasındaki ilişki incelenirken şirket teşvikleri ve eğitimleri, devlet düzenlemelerinin etkisi dikkate alınmıştır. Şirket teşvikleri KVKK farkındalığı üzerinde etkili değildir ancak devlet düzenlemelerinin varlığı bu ilişkiyi etkileyebilir. Uygulama kullanım sıklığı, KVKK farkındalığı ile müşteri farkındalığı arasındaki ilişkiyi değiştirebilecek bir faktör olarak kabul edilmektedir. Sonuç olarak, bireysel farkındalık, müşteri farkındalığı ve çalışan farkındalığı Türkiye'de KVKK farkındalığının temel belirleyicisi olarak bulunmuştur.

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## CHAPTER 1

### INTRODUCTION

Data protection and its importance have been a very remarkable matter especially in the not too distant past. As technology has expanded with high speed among the world, societies have started to pay more attention to data protection. In this globalized environment, use of data are the subjects of many areas ranging from business to academic. Naturally, as the use of data increases, the ill-use also comes into the scene. In perspective of the ill-use, all the user of data become more sensitive about this matter. From this point of view, certain warden actions have been taken by pioneer countries to maintain the security of the data. The importance of the data protection and the actions taken by the countries including European Union, United States, Russia, Japan, and Turkey are examined in this research. Especially GDPR which is called General Data Protection Law is taken into the consideration with Data Protection Law of Turkey in Turkish KVKK as Kişisel Verilerin Korunması Kanunu. In conjunction with the KVKK, the degree of KVKK awareness among Turkey society is aimed to investigate. Individual, employee and customer awareness are identified as the key determinants of KVKK awareness in Turkey. In that case, there is no research conducted to evaluate the KVKK awareness in Turkey within that scope. KVKK awareness will be more important as more people get interacted with the technology. It is a crystal clear the fact that knowing the degree of KVKK awareness of society, will be vital for the researches done in the future and the applications that will be taken by the government. Whether, the data protection law is accepted as a new concept in Turkey, the recognition level of KVKK has increased very fast as the law is strictly applied by the Turkish Government. There is a certain gap regarding to which extent people of Turkey are aware about data protection law. With this research, the degree

of awareness will be intelligible with the interpretation of data taken from Turkish society. The most precious advantage of this research is finding the key determinants of KVKK awareness in Turkey. This research brighten to what extent people are aware about the KVKK awareness. The thesis will bring a new approach in academic literature which aims to directly evaluate and assess 3 types of awareness among the society regarding data protection regulation. This study aims to find an answer of the research question which is “What is the degree of KVKK awareness based on three different awareness types “ The objectives of this research includes the find out how the 3 types of awareness types are influential over KVKK awareness. In accordance with this purpose, hypothesis had been created by taking reference to research model in order to complete the objectives of this research. The effect of these three awareness types remain under investigation with different moderating and mediating factors including government regulations, application usage frequency and company incentives. This research examines the data protection law including its history and importance in pioneer countries. In line with this, KVKK rules are explained briefly and compared with GDPR. The research model has been designed. The data has been collected via a well-designed survey from Turkish society. Hypothesis have been created by taking reference with Research model, and the data has been processed with specific roots. This thesis organizes as follows, background and literature review, problem definition, research methodology and framework, hypothesis and findings and conclusion including limitations and future work.

## CHAPTER 2

### BACKGROUND AND LITERATURE REVIEW

#### 2.1 The importance of data protection

Data protection have become a controversial topic in today's circumstances. The reason behind the controversy may come from the excessive usage of data in many sectors ranging from banking to fast moving consumer goods and the advancements in technology which enables companies and institutions to use any kind of data in their business processes. As technology develops, data is becoming an indispensable variable for companies and consumers mainly caused by the convenience of data collection via technological devices. Furthermore, data has been effectively used in many areas to create a better environment and life standard for living creatures in the world. The power of data has been well recognized and now the companies whose mainly business depend on the data are one of the most assertive firms among others

However, whether the data can be used for good purposes, antipodean cases exist as well. Data may reflect several things about individuals and companies. In order to understand the importance of data and data protection, it is beneficial to understand some concepts related with these two. Firstly, as data is gaining its reputation in the world, personal data concept came in sight. GDPR (General Data Protection Regulation) describes personal data as any information which are related to an identified or identifiable natural person. (Gdpr Info EU, n.d.). Related with this, Big Data concept have become an important issue which may be used for companies to reshape their marketing strategies without taking permission from the owners of data.

Indeed, many countries decided to take actions to preserve their citizens' data by introducing relevant laws which have deterrent penal provisions.

Secondly, company data is another branch which includes crucial information for companies such as their financial assets, profit and loss documents, strategic management plans, databases, risk plan etc. These concepts form a basis for company and its operations. Also, companies are also coerced to store personal information of employees due to company policies and governmental regulations. Moreover, companies are not only responsible to protect its organizational data but also employee's data. From this point of view, companies have started to make huge investments on cybersecurity area, data protection tools and software to protect their data systems from cyber-attacks, malwares etc.

It is clear the fact that the data protection should be regulated by laws to maintain a harmony between different sectors and firms. This harmony may create a total synergy by creating individual awareness in the society as well. Otherwise, every company may try to apply its own in-house regulations on the data which may lead confusion in business and social environment. As discussed, regulations should be on the scene to draw real picture about data protection and to contribute the its application procedures. There are few reasons why we need to have data protection laws executed by Government.

At first, inconvenient usage of personal data directly violates people's fundamental rights and freedoms of persons who have direct connection with the data. For example, a person with specific illness can be under a lot of stress in specific environments if his/her medical problem is known publicly without his/her consent. More clearly, his/her rights and freedoms may be violated if his/her data are leaked out.

Secondly, processing data using incorrect manners may cause serious problems for the owner of data. For example, there is a doctor working in a public hospital. Let's assume that somehow, his personal information is used by an illegal organization without his consent. That may cause him to lose his job and reputation until he/she proves himself before the law and what is worse, he/she will suffer from that physically and psychologically. Apart from these examples, there can be a lot of cases which have similar points.

## 2.2 History of data protection

The history of data protection may be associated with other technological advances that reshape the world such as the development of phonograph by Edison Company in 1870, the foundation of Typewriter and QWERTY keyboard by Sholes & Glidden in 1873, Big Box telephone by Alexander Graham Bell in 1876, the foundation of the modern incandescent electric lamp etc. These technological innovations were discovered in USA. In these times, USA was one of the most innovational countries that paid huge attention to these kinds of advances. In line with this, the history of data protection started in USA in 1890 with Two United States lawyers, Samuel D. Warren and Louis Brandeis who write The Right to Privacy, an article that argues the right to be left alone, using the phrase as a definition of privacy. (Inplp,2018)

As can be seen from the table 1, history continues with The Universal Declaration of Human Rights in 1948, The EU Convention on Human Rights in 1950, The Freedom of Information Act (FOIA) in 1967 which intitle people the right to reach to the files and official documents used and stored by state Agencies in US, OECD issues guidelines on data protection in 1980 that covers the outrageous usage of computers in organizational and business transactions. Between 1980-1995, there are

many implications and regulations related with data protection. When The European Data Protection Directive is created in 1995, the policies related with data protection became a very hot topic among European Union and this directive is one of the basis of the most updated version of data protection among the world namely GDPR, General Data Protection Regulation, which is approved was approved by the EU parliament after 4 years of discussion.

As can be seen from the historical relationship between data protection and technological advances, it is clear the fact that society started to be more conscious about the data as they experience new developments that may reshape the structure of the world continuously. Indeed, in line with this relationship, the countries which are interested in high-tech industry make huge investments to protect their data related system to increase the effectiveness. Thus, data protection is one of the most important goals for these countries especially European countries and US. From this point of view, it is not surprising that GDPR was born in Germany, the most innovative country among the others in the European union. (See Table 1)

Table 1. History of Data Protection

Year	Area	Responsible	Event
1890	US	Samuel D. Warren and Louis Brandeis	The Right to Privacy Article
1948	Universal	United Nations	The Universal Declaration of Human Rights
1950	EU	European Parliament	Convention on Human Rights
1967	US	US Government	The Freedom of Information Act (FOIA)
1980	OECD	OECD Council	Guidelines on data protection,
1981	EU	European Parliament	Data Protection Convention (Treaty 108),
1983	Germany	Germany Parliament	The Federal Constitutional Court of Germany
1993	UK	UK Parliament	The charge of PC Brown
1995	EU	European Parliament	The European Data Protection Directive
2002	EU	European Parliament	The adoption of the Directive on Privacy and Electronics Communications
2006	EU	European Parliament	The adoption of the Directive retention of data generated or processed in connection with the provision of publicly available electronic communications services or of public communications networks
2009	EU	European Parliament	The evolution EU Electronic Communications Regulations
2010	Universal	Wikileaks	The international non-profit organisation Wikileaks publishes secret information
2013	EU	European Parliament	The adoption of the Regulation 611/2013 on the measures applicable to the notification of personal data breaches under Directive 2002/58/EC.
2014	EU	European Parliament	The concept becomes known as "the right to be forgotten"
2016	EU	European Parliament	The General Data Protection Regulation (GDPR) is approved
2018	EU	European Parliament	GDPR is being enforced, replacing the Data Protection Act.
2018+	EU-Universal	European Parliament - different countries	Responsible management of personal data through mature IT governance, transparent processes and modern applications.



## 2.3 Data protection applications in the world

In today's world, there are different factors that may directly affect the importance and application type of data protection. Economic conditions of the country is one of them. As economic condition of the country rises, the tendency to implement data protection laws increases as well. In that case, for the countries which have relatively higher GDP per capita, pay more attention to the data protection concept. For these societies, people are more aware of technological advances and the importance of data protection. Furthermore, the countries which have serious data protection laws have strategical restrictions on e-commerce sites thus who wants to enter these kinds of markets are supposed to have the same data application rules to protect the rights of consumers whether the company is the part of the given country or not. To have a deeper understanding related with data protection, it is important to examine the different types of data application in developed and developing countries.

Moreover, there are some organizations related with data protection concept that includes specific countries depending on their language. Association Francophone Des Autorité de Protection Des Données Personelles is one of them. The member of this association are French-speaking countries starting from Albania to Canada. Also, the countries who are regulated under GDPR are the part of the association namely France, Luxemburg, Belgium, and Suisse.

### 2.3.1 Us

Us is one of the most effective countries that contribute data and data protection concept. As discussed, with the advancement in technology that were founded within the territory of US, make the country more attentive about data protection.

Also, the baby steps of data protection regulation was came true with the article of “The right to the privacy” written by Samuel D. Warren and Louis Brandeis. It is a well-known fact that USA has 52 states which have their own decision-making system and regulations. To give a specific example, California state has more than 25 state privacy and data security laws soon integrated into California Consumer Privacy Act of 2018 (CCPA), effective January 1, 2020. However, all these states are supposed to apply federal rules in order take more efficient and general decision to create a harmony between states and to protect society’s overall wealth. From this point of view, to understand better, the data protection policy of US, we should be knowing that each state can have its own data protection laws as well. In brief, there are no single body of rules like GDPR in European Union. It means that, US society does not have overarching set of regulation that directly limits and controls the collection of personal information and its usage. Yet, US has a different approach which includes the regulation of certain industries and sensitive information types (financial, health, personal, health support systems). In that case, some of these regulations can be overlapping and counterpart between each other

Furthermore, US is a trade-based country. In 2018, total U.S. trade with foreign countries was \$5.6 trillion. That was \$2.5 trillion in exports and \$3.1 trillion in imports of both goods and services (Amadeo, 2021). European Countries have strong trade-relationship between US. That’s why US companies and institutions want to match up US laws with GDPR applications to provide service in the member countries. From that point of view, it can be said that the GDPR may be relevant to the 116th Congress’ consideration of data protection initiatives in several ways (Mulligan et al.,2019). For this integration FTC (Federal Trade Commission) has been taking many important decisions to maintain the relationship between US and world especially with the

countries who apply and accept GPDR rules whether they are not the member of the union like Turkey.

### 2.3.2 Russia

Russia is another country which leads the information sciences in the world. Russian hackers and cybers attacks are known with their disrepute. Every day, these evil-minded organizations and people try to steal personal information from the sectors which keep a lot of personal information like Facebook, Google, Amazon etc. Nevertheless, the data protection regulation is not enough capable of protecting the personal information of Russian society. As a result of this, many Russian firms are in the danger of cyberattacks. Personal data protection is regulated under The Russian Federal Law on Personal Data No-152-FZ enforced on 27 July 2006 that has similar articles with GDPR and Data Localization Law No. 242-FZ (Roskomnadzor, n.d.)

Furthermore, as stated in US part, Russian Government and influential big firms are trying to integrate their business processes and web sites into GDPR rules to make safety relation between these two countries.

### 2.3.3 Japan

Japan is a country that have worldwide known high-tech companies namely Sonny,Nikon,Canon,Mitsubishi,Toyota etc. These companies have been investing huge amount of money to the personal data protection. The reason behind this can be associated with their global existence and the strict regulations forced by Japan Government.

Japan's first foray into data protection legislation came with the adoption of the Act on the Protection of Personal Information (APPI) in 2003. APPI was one of

the first data protection regulations in Asia. It received a major overhaul in September 2015 after a series of high-profile data breaches shook Japan, making it clear APPI's requirements no longer met present day needs. The amended APPI came into force on 30 May 2017, one year ahead of the EU General Data Protection Regulation (Coos,2019)

#### 2.3.4 European union

The protection of personal data in Turkey has been an crucial point in line with EU Compliance Laws. In this case, society is assumed to be not adequate for being aware the application of personal data protection in Turkey due any specific research is conducted to assess the degree of awareness among consumers and users of internet. GDPR (<https://gdpr.eu/>), is globally known and its awareness is quite higher. The General Data Protection Regulation (GDPR) is a legal framework that sets guidelines for the collection and processing of personal information from individuals who live in the European Union (EU). Since the Regulation applies regardless of where websites are based, it must be heeded by all sites that attract European visitors, even if they don't specifically market goods or services to EU residents (Frankenfield,2020). 67% of Europeans have heard of the GDPR, 57% of Europeans know that there is a public authority in their country responsible for protecting their rights about personal data Generally, data protection is associated with the Government Authorities and know which public 20% authority is responsible. (European Commission, n.d.) GDPR, is the one of the most important data protections among the world which is taken as a basis to create KVKK in Turkey. In line with this, some countries and unions have already started to apply body of rules. According to the European Union Agency for Fundamental Rights “The majority of respondents (66 %) indicated that they had either

a fair or an expert understanding of EU data protection requirements (European Union Agency, n.d.) whether The first year of the GDPR has seen people realize the potential of their personal data. There is a greater awareness of the law, in particular the data rights of individuals, and a greater awareness of the role of the regulator where rights aren't being respected (Information Commissioner's Office, n.d.). In addition to this, GDPR is having the desired effect with a largely positive impact on consumer opinion in relation to personal data being collected and stored by organizations (Deloitte,2018)

To understand better how GDPR forms a basis for KVKK, it is crucial to know which articles are more important and which of them are referring to the KVKK rules. In that case, GDPR has 3 key principles with their applications regarding websites of institutions and data handling procedure.

In the principle of the rights of individuals, The GDPR gives certain rights to the users and consumers regarding the protection of personal data. These rights include limiting the data collected in the first place, control of how the data is used and stored, and access to their data to change, transfer or delete it. (Pirzada,2021)

Article 6 (Lawfulness of processing) is directly related with Rights of Individuals. It explains under what circumstances, personal data can be a subject of processing of the data. It also underlines the necessity of taking consent from the owner of the data (individuals) when his/her data is processed for specific purposes. To give you a specific example, users should have an option to approve the collection of personal data by the website or not. (Information Commissioner's Office, n.d.).

Article 15 (Right of Access by the data subject) is the right to information pursuant to Art. 15 GDPR introduces only a few new requirements. Those who were already in control of their information processes as part of their obligations under BDSG-old will only have had to make a few changes when the GDPR became

applicable. In this context the shorter and more compact rules of the GDPR can be understood as a requirement to provide data subjects with the relevant information in a prepared and legible form. The controller does not have to adhere to any demands going beyond this (Steger,2018). This article includes which rights consumers have while their data is being processed by the business owner. Consumers are free to know why their data is processed, which type of data is used for this process, who are the takers and responsible for the data, and the time in which their data is stored

Article 18 ( Right to Restriction of Processing) states that people can request that data controllers stop processing their personal data in particular ways under certain circumstances, including; If the user makes a request for rectification, objection or erasure, and you need time to consider this and If the data has been processing unlawfully but your user doesn't want you to erase it.(Bateman,2022)

According to the Article 20 (Right to Data Portability), the EU deems the protection of natural persons in relation to the processing of personal data as fundamental right, and the EU balances this right with the rights to privacy, personal integrity, freedom of expression and information, and freedom to conduct a business, among many others. The EU establishes two rights with this article which are the right of a data subject to request a copy of all his or her electronically stored personal data from a data controller and the right of a data subject to request the transfer of personal data to another data controller. (Puckett,2017).

According to the Article 21 (Right to Object) The user have right to object to certain types of processing of your personal data where this processing is carried out in connection with tasks ; in the public interest, under official authority, or in the legitimate interests of others (Data Protection Commission, n.d.) The user can powerfully challenge with the usage of the personal data in which the processing is a

subject of direct marketing. If this happens, data controller or processor must immediately stop using the data.

Article 16 (Right to Rectification) states that the data subject can require the controller to rectify any inaccurate information immediately. (Eckerson, 2017). The data subject shall have the right to obtain from the controller without undue delay the rectification of inaccurate personal data concerning him or her. Considering the purposes of the processing, the data subject shall have the right to have incomplete personal data completed, including by means of providing a supplementary statement. (Thomson Reuters, n.d.)

In the principle of the right to be informed, the principle of transparency requires that any information addressed to the public or to the data subject be concise, easily accessible and easy to understand, and that clear and plain language and, additionally, where appropriate, visualisation be used. 2Such information could be provided in electronic form, for example, when addressed to the public, through a website (Gdpr Info EU, n.d.)

In the principle of the right to ensure, GDPR Article 17 ensures that companies must immediately delete personal data if the following occurs: The personal data are no longer necessary for the purposes for which they were previously collected or otherwise processed, the person withdraws their consent and there is no other legal basis for processing, the data subject objects to the processing and there are no legitimate grounds for processing and the personal data have been improperly processed (Nuncic, 2018).

### 2.3.5 Turkey

First, it is important to understand the GDPR and KVKK in the similar manner. GDPR is a basis for many data protection set of rules applied by different countries. Turkey is one of them. regulations began to be accepted by Council of Europe since the beginning of early 1960, because of development in information technology. Convention of Protection of Individuals against Automatic Processing of Personal Data prepared in 1981 is one of the most significant regulation of these international regulations. Turkey signed this convention on January 28, 1981 and accepted on January 30, 2016. In short, Code of Personal data protection numbered 6698 ("Code") has been published in April 07, 2016 dated and 29677 numbered Official Gazette (British Chamber of Commerce Turkey,2016). In Turkey, term of protection of personal data first took place in Constitution with the referendum conducted in September 10, 2010. Thereby, protection of personal data has become a constitutional right.

In Article 1 of KVKK, the purpose of the law is stated as protecting the fundamental rights and freedoms of persons, privacy of personal life in particular, while personal data are processed, and to set forth obligations of natural and legal persons who process personal data and procedures and principles to comply with for the same.(KVKK,2016) This article was formed by taking reference the Article 1 of GDPR.

It is important to indicate that the definitions identified in DPL, have already existed in GDPR but the vice versa is not valid. Both regulations have similar principles. Especially Article 2 and Article 3 in KVKK is very similar with GDPR important articles which are stated above.



To conduct the research, definitions stated in Article 3 are taken into the account. Furthermore, following articles have been taken as a reference to create survey questions regarding consumer awareness about KVKK.

- Article 4 (General Principles),
- Article 5 (Conditions for Processing Personal Data),
- Article 6 (Conditions for Processing of Special Categories of Personal Data)
- Article 7 (Deletion, Destruction, and Anonymization of Personal Data)
- Article 8 (Transfer of Personal Data)
- Article 9 (Transfer of Personal Data Abroad)
- Article 10 (Data Controller's Obligation to Inform)
- Article 11 (Rights of Data Subject)
- Article 12 (Obligations regarding data security)
- Article 19 (Personal Data Protection Authority)
- Article 28 (Exceptions)

#### 2.4 Awareness for data protection law: GDPR study

To understand the degree of Awareness for Data protection law in Turkey, 3 main categories namely Individual Awareness, User Awareness and Consumer Awareness will be examined because these 3 categories can affect each other in the society. The reason behind this may be the close relationship between User Awareness and Consumer Awareness. Indeed, a subject of User Awareness may also be a subject of consumer awareness. In this case, the knowledge related with User Awareness may increase the degree of Consumer Awareness, vice versa is also acceptable.

Systems described in the research literature take a variety of approaches to the terms of awareness information. To understand if others' activity could be done in

different ways, Nourish and Bellotti (Dourish,1992) make a distinction between these approaches, whether the information is explicitly generated or passively collected and distributed

#### 2.4.1 Individual awareness

Dourish and Bellotti define awareness as understanding of the activities of others, which provides a context for your own activity (Dourish,1992) Mariani, says that cooperation is facilitated and can be much better supported when users are aware of other users with similar interests or involvement in similar activities. (Mariani,1993). Prinz goes further saying that by the provision of mutual awareness on the presence of others, team building occurs, since co-workers can find similar interests through the system. (Prinz,1999)

#### 2.4.2 Customer awareness

Consumer Awareness is an act of making sure the buyer or consumer is aware of the information about products, goods, services, and consumers rights. Consumer awareness is important so that buyer can take the right decision and make the right choice. Consumers have the right to information, right to choose, right to safety (Toppr, n.d.).

In line with this, consumer awareness is a way that can be used to increase individual awareness. In today circumstances where the power of consumer is getting bigger and bigger with the increasing needs of humankind. From that point of view, rights of consumer have been reshaped as technology grows very fast. Thus, consumer must be aware of his rights regarding his/her data which can be processed as described below.

Solicited information on awareness of product review websites, extent of usage, the individual difference factors, as well as demographic information may be effective on consumer awareness (Bailey, 2013). Also psychological and physiological factors, sex, socio-economic class, image of a food, and eating occasions influence awareness of and attitudes to texture among adult consumers (Kahn 1971 ; Szczesniak ; 1971) Word-of-mouth communication is one type of social influence that has received extensive attention in the consumer behavior literature, though much focus has been on negative word-of-mouth communication, as opposed to positive word-of-mouth communication. Researchers have shown that word of mouth communication has an impact on consumer attitudes (Bickart and Schindler 2001); consumer risk-taking (Woodside and Delozier 1976); short-term and long-term product judgments purchase decisions and choice behavior (Lau and Ng 2001); and is related to such variables as consumer complaining behavior (Blodgett, Granbois, and Walters 1993).

#### 2.4.3 User awareness

User awareness is knowledge that leads to appropriate security behaviours. Knowledge itself is insufficient. Awareness requires that people behave in accordance with that knowledge. Users cannot be considered to demonstrate strong awareness unless their behaviors are in accordance with policies. Clearly, people require knowledge of the threats, as well as of the actions they should take. However, the most important aspect is that the individual is motivated to take the appropriate actions (Gomes and Winkler , 2017)

## 2.5 Data protection awareness

### 2.5.1 GDPR awareness across European Union

With the help of authorities, GDPR reached very good number of people across European Union. According to the researches that had been conducted, based on the views of 27,000 Europeans, the Eurobarometer results show that 73% of respondents have heard of at least one of the six tested rights guaranteed by the General Data Protection Regulation. The highest levels of awareness among citizens are recorded for the right to access their own data (65%), the right to correct the data if they are wrong (61%), the right to object to receiving direct marketing (59%) and the right to have their own data deleted (57%).

In addition, 67% of respondents know about the General Data Protection Regulation and 57% of respondents know about their national data protection authorities. The results also show that data protection is a concern, as 62% of respondents are concerned that they do not have complete control over the personal data provided online. (European Commission, 2019)

## CHAPTER 3

### RESEARCH METHODOLOGY AND THEORETICAL FRAMEWORK

#### 3.1 Problem definition

Data Protection Regulation Rules namely KVKK has become very crucial topic among Turkish world of work and society especially in the last 2 years. Many companies are supposed to apply Data Protection Regulation Rules in accordance with the guidance given by government authorities. However, whether we are adequate to evaluate company's performance regarding the execution of rules, there is no research conducted within widened scope since KVKK has been published

It is a clear fact that GDPR has been a subject for many academic researches but there are no more than a few researches which directly aims to understand individual's response or reaction towards the execution and application of Data Protection Regulation.

From this point of view, the thesis will bring a new approach in academic literature which aims to directly evaluate and assess the three types of awareness among the society regarding data protection regulation.

As a natural process of action and reaction principle, if we can understand society reaction for data protection rules, it will be easier for us to find efficient ways that will be used to increase awareness.

The thesis may contribute to academic literature by eliminating inefficient use of time and resources for government to understand awareness for DPL. If so, the ways used to reach individuals can be reshaped and developed by taking as reference point from the analysis has been conducted in the thesis.

### 3.2 Population and sample

This study aims to explore the degree of KVKK awareness among Turkish Society by taking reference 3 subbranches that will be explained in detail in model. Theoretical framework includes a unique-created model rather than existing ones in literature. The objective of this research is to explore whether is there relationship between KVKK awareness and given independent variables by taking reference to different moderators and mediators. In line with this, the research question; What is the degree of KVKK awareness based on three different awareness types.

As mentioned, this is a quantitative study that has been conducted via web-based questionnaire. The survey is in Turkish language since all the participants lives in Turkey and their mother language is Turkish. The questions have been designed to calculate the degree of awareness in terms of numbers. For this purpose, some multiple-choice question is used to classify the data. The type of questions is close ended. The survey type is non-experimental type thus there is not before-after observations

Simple Random Sampling is used to collect data from individuals. Google Form is a tool served as SaaS platform in the collection process of related data. In brief, online response mechanism have been used in the research. Some individuals have been invited to fill the survey via telephone and e-mail usage. The open time for the survey is 2 weeks. Many responses had been collected the first week. The detailed schema has been given in analysis part. The levels of measurement of the research includes Nominal Level for demographic questions, mostly Likert – Scale for hypothesis and research question. Intellectual property right has been protected extensively. No data has been shared with 3 parties for any purposes.

To answer the research question, quantitative data have been collected with well-designed survey which prepared with the ideas of many professionals in the private sector range from Technology to law and academic society. The data was collected by the owner of the research, and secondary data was not used. Also, there is no experimental data used for this research. However, the different types of data collection methods can be the subject of further analysis in future.

### 3.2 Analysis of data

All reliability and validity test have been conducted in analysis part to ensure the objectivity of the research. Depending on the result taken from this part, some arrangements have been done which are explained in detailed in the same part. To be more specific, Cronbach's alfa has been investigated in question groups belonging to the certain variable types.

To conclude, with the help these hypotheses, we tried to create a meaningful relationship between independent and dependent variables in the presence of moderators and mediator. All of questions have been carefully examined. The wording of the questions is controlled in terms of common mistakes done in the research surveys.

Some of the variables have been transformed or unified depending on the number of answers. We can see this example in 3 question which includes the region of participants. Certainly, the data set was controlled and checked for to eliminate the risk of missing data in data set. The missing has been removed from the questionnaire. Nevertheless, the number of missing data is quite low since many questions in the survey are in mandatory status meaning that, the survey cannot be completed without answering certain questions.

SPSS have been used to analyses the data set. Anova and T test (Two tail) have been applied to process the data based on the hypothesis produced. All relevant data has been processed carefully to get clear results. Any inconvenient manipulation was not done on the data set. The results taken, as mentioned, are the subject of both internal and external validity measures.

The Survey includes specific questions that aim to evaluate and calculate specific dependent and independent variables. All the variables and the relationship between subjects are deeply explained in the model section.

### 3.4 The research model

A theoretical framework has been created for this research. The relationship between independent and dependent variables have been discussed. Also, the relationship between moderators and mediators have been carefully evaluated via certain methods in SPSS. The relationship between variables have been showed as below.

The research model has 3 independent, 2 moderators, 1 mediator and 1 dependent variables. For the sake of simplicity, the model is examined under 3 categories which are mainly based on independent variables. (See Figure 1)



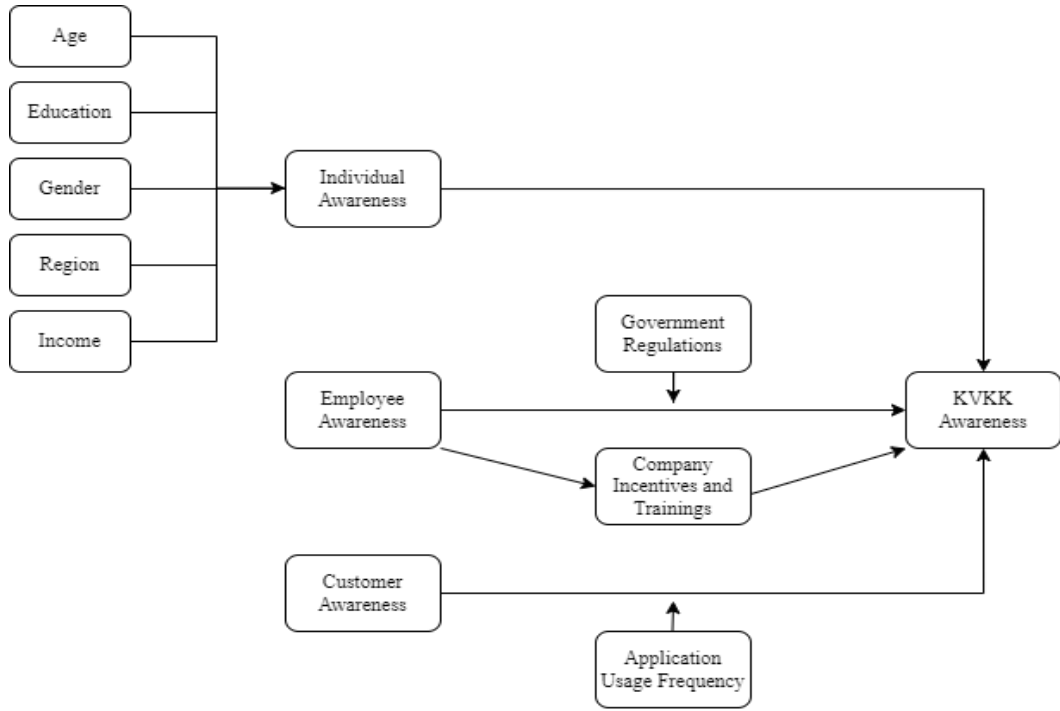


Figure 1. The research model including all variables

It is argued that the degree of KVKK awareness in Turkey might be directly affected by three main factors. The first one is individual awareness. As the name implies, individual awareness can be assessed under certain components. Socio-economic status is one of the most influential factors on individual awareness. The degree of awareness tends to be higher as the social status or income gets higher than the average. The reason behind this may lie behind the intense interaction of these people with the business and regulations. Demographic diversity might be the identifying factor regarding individual awareness in terms technology use. Furthermore, the living region of people might be the one of the most notable determinants because of the means of existence. In conjunction with this, one's profession may affects the individual awareness. Use of telecommunication applications tools make people more conscious about what is happening in the universe.

KVKK awareness can be clearly associated with employee awareness since the concept had been designed depending on certain conditions that employees have in their professional life. Addedly, employee awareness can be heftily created via different strategies. The actions of companies including training and rewards are the subject of that matter. What is more, government regulations come into the scene while discussing the relationship between KVKK awareness and employee awareness

The final component of KVKK awareness is the customer awareness. When the mother version of KVKK called GDPR had been created, the focus was about customer protection. It is important to say that, employee and individual awareness can be examined with different approach customer awareness have lots of similarities. Customer awareness is one of the most important awareness types in which data protection rules are indispensable. When customer gets more involved into the online buying process in the sector, the importance of data protection becomes very critical subject. Thus, we decided to analyze customer awareness with respect to the KVKK awareness.

All variables are asked in the survey. Specific questions are attributed to specific variables as can be seen from the table below. For each independent variable, moderators are showed right after the relevant independent. There is one mediator variable belong to the second independent variable namely Employee Awareness (See Table 2)

Table 2. Relevant Questions for Each Variable Type

Variable Type	Variable Name	Relevant Questions for each variable
<b>Dependent Variable</b>	<b>KVKK Awareness</b>	<b>Q8-Q13</b>
<b>Independent Variable 1</b>	<b>Individual Awareness</b>	<b>Q14-Q18</b>
Socio-Economic Determinants	Gender	Q1
	Age	Q2
	Region	Q3
	Income	Q4
	Education	Q5
	Income	Q7
<b>Independent Variable 2</b>	<b>Employee Awareness</b>	<b>Q24-Q25</b>
Moderator	Government Regulations	Q19-Q21
Mediator	Company Incentives and Trainings	Q22-Q23
<b>Independent Variable 3</b>	<b>Customer Awareness</b>	<b>Q27-Q32</b>
Moderator	Application Usage Frequency	Q33-Q37

Raw data taken from the survey, has been transformed and processed. The questions in nominal data category have been coded into the numbers. Also, Likert Scale questions have been transformed into the numbers to do analysis in SPSS tool. The answers are common for all Likert-Scale questions and they are transformed as below.

- Value 1.00: Strongly Disagree
- Value 2.00: Disagree
- Value 3.00: Neither Agree nor Disagree
- Value 4.00: Agree
- Value 5.00: Strongly Agree

Different methods have been used to understand the relationship between independent and dependent variables. Depending on the hypothesis type; t-test, One-way Anova and Linear Regression have been used in SPSS tool.

## CHAPTER 4

### HYPOTHESES AND FINDINGS

Hypothesis and Findings are explained in a detail. The important descriptive statistical results are taken from the analysis. There are 13 hypotheses are asked in this research. All of the hypothesis and the questions belongs to the relevant hypothesis have been given in a table given below. (See Table 3)

Table 3. List of Hypothesis Including Relevant Analysis Techniques

Hypothesis Number	Hypothesis	Which technique is used for analysis ?
1	There is a relationship between Individual Awareness and Socio-Economic Determinants	Regression
2	There is difference between individual awareness for men and women	T-test
3	There is a difference between age groups in individual awareness	Anova
4	There is a difference between regions in individual awareness	Anova
5	There is a difference between education levels in individual awareness	Anova
6	There is a difference between income levels in individual awareness	Anova
7	There is a relationship between KVKK awareness and Individual awareness	Regression
8	There is a relationship between KVKK awareness and employee awareness	Regression
9	The degree of relationship between KVKK awareness and employee awareness is affected by the presence of government regulations	Moderating Analysis
10	The relationship between employee awareness and KVKK awareness is mediated by company incentives and regulations	Mediating Analysis
11	There is a relationship between KVKK awareness and customer awareness	Regression
12	The degree of relationship between KVKK awareness and customer awareness is affected by application usage frequency	Moderating Analysis
13	There is a relationship between KVKK awareness and Individual awareness, employee awareness, customer awareness, company incentives and application usage frequency	Regression

There are certain questions asked to evaluate dependent, independent, moderators and mediator variables. For each variable group, Cronbach's alfa value has been taken into the consideration. The acceptable values of 0.7 or 0.6 has been taken as a reference. (Griethuijsen et al., 2014). Depending on the results taken from internal analysis, there is no need to exclude any question from the survey.

For each variable including independent and dependent, Cronbach's alfa is calculated. Mediating variable is also added to the analysis for the second independent variable namely employee awareness since there is causal relationship between independent, dependent, and mediating variable.

As can be understood from the table below, there is 309 valid answers. Instead of giving Cronbach's alpha values separately, all the values are given in Table 4

Table 4. Case Processing Summary of Cronbach's Alfa

<b>Cronbach's Alfa Case Prossesing Summary</b>			
	<b>Case Processing Summary</b>		
	<b>Cases</b>	<b>N</b>	<b>%</b>
Cases	Valid	309	100.0
Excluded*	0	.0	
Total	309	100.0	

\* Listwise deletion based on all variables in the procedure.

For the sake of lucidness and comparability. For each variable, the Cronbach's Alfa value is calculated. It is crucial to identify that all the Cronbach's Alfa values related to specific variable are far below the threshold. From this point of view, the questions asked in the survey perfectly serves for the understanding of KVKK awareness. Based on Cronbach's Alpha Results, there is no need to exclude any questions linked to the variables. In addition, it is possible to interpret these values as excellent. (See Table 5)

Table 5. Cronbach's Alpha Values of Each Variable

Reliability Statistics				
Variable Type	Variable Name	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Dependent Variable	KVKK Awareness	.791	.790	6
Independent Variable	Individual Awareness	.788	.802	5
Independent Variable	Employee Awareness	.895	.895	4
Independent Variable	Customer Awareness	.901	.902	6

#### 4.1 Descriptive analysis of outcomes and measures

Survey has included 309 answers. There are certain questions asked to the participants in order to understand the certain features of given sample. SPSS and Excel tool has been combined to work on the data.

165 (53%) man, and 135 (44%) have participated the survey. 9 (3%) of participants chose not to identify their sexes.

The age range of participants is examined under these 5 categories which are 0-18 (1%), 19-30 (43%), 31-40(18%), 41-50(16%) and 50+ (22%). Depending on these results, it can be said that the respondents belong to the X, Y and Z generation (variable selection-foot note). This information might be an underlaying factor for the future works.

Region is one of the indicators in this research. According to the results of the survey, 138 (45%) people has been currently living in Aegean Region. Marmara Region follows it with 92 (30%) participants. 28 (9%), 20 (6%), 18 (6%) participants belongs to the other regions which are Black Sea Region, The Mediterranean Region and Eastern and Southeast Anatolia Region respectively. Eastern and Southeast Anatolia Region have been unified under one category for the sake of simplicity and effectiveness of data analysis since the number of answers belong to these two

categories are relatively low than others. Also, these regions are closest to each other's geographically.

Education level of participants are asked in the survey. The number and percentage of responses are given as; 6 (2%) Primary or secondary school graduate, 39 (13%) High School Graduate, 183 (59%) University Graduate and 81 (26%) Postgraduate. The number of answers in primary and secondary school graduate are examined under one category since the answers of these two categories are relatively lower than the others.

Job status of participants are asked in the survey. The number and percentage of responses are given as ; 7 (2%) , 26 (8%) , 27 (9%), 29 ( 9%), 40 (13%) and 180 (58%) belonging these categories ; Part Time Worker, Retired, Not working, Business Owner, Student and Full Time worker respectively.

Experience in business life are asked to the participants. The number of responses is examined under 5 categories. The results are ; 34 (11%), 35 (11%), 45 (15%), 58 (19%) and 137 (44%) which belong to these categories ; 5 years - 10 years , Fresh Graduate - 2 years Not working , 2 years - 5 years and 10 years or more respectively

Income level is asked to the participant. The number of responses is categorized under 4 categories. The results are; 63 (20%), 70 (23%), 75 (24%), 101 (33%) for 10.000 TL or more, 3000TL- 5000 TL, 0TL-3000TL, and 5000TL-10000TL respectively.

The results taken from first 7 question are analyzed. It is important to identify that all these questions are in mandatory status meaning that each of participants are supposed to answer all of them. Indeed, 26th question is asked to 309 participants but 246 (80%) of them responded since the question is open-ended one. It can be seen

from the table how the responses have been unified under certain categories. The results taken from the survey are ; 6 (2%), 11 (4%), 19 (6%), 22 (7%), 23 (7%), 24 (8%), 43 (14%), 43 (14%), 55 (18%) which belong to these categories ; Law, Media - Audio visual arts Technology/informatics , Finance , Civil Servant, Production, Other, Service, and Education respectively.

For good measure of given results, two crosstabulation tables are subtracted from the analysis and showed. (See Table 6 and 8). The first crosstabulation is gender and income crosstabulation Also, chi-square test has been applied for this analysis. The chi-square analysis does not have expected countless then five. (See Table 7 and Table 9) It can be said that two variables are independent of another since p value is greater than 0,05. It means that, the null hypothesis is failed to reject. (See Table 6)

Table 6. Chi-Square Test of Crosstabulation of Gender and Income

	Chi-Square Tests		
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.561 <sup>a</sup>	3	.056
Likelihood Ratio	7.556	3	.056
Linear-by-Linear Association	5.955	1	.015
N of Valid Cases	309		

0 cells (0.0%) have expected count less than 5. The minimum expected count is 28.54.



Table 7. Crosstabulation of Gender and Income

Gender * Income Crosstabulation							
			Income				Total
			0 TL - 3000 TL	3000 TL - 5000 TL	5000 TL - 10000 TL	10000 TL or more	
Gender	Women	Count	44	31	40	25	140
		% within Gender	31.4%	22.1%	28.6%	17.9%	100.0%
		% within Income	58.7%	44.3%	39.6%	39.7%	45.3%
		% of Total	14.2%	10.0%	12.9%	8.1%	45.3%
	Men	Count	31	39	61	38	169
		% within Gender	18.3%	23.1%	36.1%	22.5%	100.0%
		% within Income	41.3%	55.7%	60.4%	60.3%	54.7%
		% of Total	10.0%	12.6%	19.7%	12.3%	54.7%
Total	Count	75	70	101	63	309	
	% within Gender	24.3%	22.7%	32.7%	20.4%	100.0%	
	% within Income	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	24.3%	22.7%	32.7%	20.4%	100.0%	

The second crosstabulation is income and experience crosstabulation. Also, chi-square test has been applied for this analysis. The chi-square analysis does not have expected count less than five. It can be said that two variables might be dependent of another since p value is, 0,001 smaller than 0,05. It means that, the null hypothesis is rejected. (See table 8)

Table 8. Chi-Square Test of Crosstabulation of Experience and Income

	Chi-Square Tests		
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	143.051a	12	<.001
Likelihood Ratio	133.903	12	<.001
Linear-by-Linear Association	82.971	1	<.001
N of Valid Cases	309		

0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.93

Table 9. Crosstabulation of Experience and Income

Income * Experience Crosstabulation							
			Experience				Total
			1	3	4	5	
Income	0 TL - 3000 TL	Count	35	11	3	10	75
		% within Income	46.7%	14.7%	4.0%	13.3%	100.0%
		% within Experience	77.8%	19.0%	8.8%	7.3%	24.3%
		% of Total	11.3%	3.6%	1.0%	3.2%	24.3%
	3000 TL - 5000 TL	Count	4	10	19	26	70
		% within Income	5.7%	14.3%	27.1%	37.1%	100.0%
		% within Experience	8.9%	17.2%	55.9%	19.0%	22.7%
		% of Total	1.3%	3.2%	6.1%	8.4%	22.7%
	5000 TL - 10000 TL	Count	4	25	10	55	101
		% within Income	4.0%	24.8%	9.9%	54.5%	100.0%
		% within Experience	8.9%	43.1%	29.4%	40.1%	32.7%
		% of Total	1.3%	8.1%	3.2%	17.8%	32.7%
	10000 TL or more	Count	2	12	2	46	63
		% within Income	3.2%	19.0%	3.2%	73.0%	100.0%
		% within Experience	4.4%	20.7%	5.9%	33.6%	20.4%
		% of Total	0.6%	3.9%	0.6%	14.9%	20.4%
Total		Count	45	58	34	137	309
		% within Income	14.6%	18.8%	11.0%	44.3%	100.0%
		% within Experience	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	14.6%	18.8%	11.0%	44.3%	100.0%

As described in the Research model, there is 3 independent variables. To understand their internal relationship, Pearson Correlation test is used. As a conclusion, for all bi-variate correlations, the p value is smaller than the threshold of 0,05. The relationship between individual awareness and customer awareness is positively correlated which has a Pearson correlation value of 0,569. This proves that there is a strong correlation between individual awareness and customer awareness. Also, the correlation has 0,01 p value which is smaller than the 0,05. The relationship between individual awareness and employee awareness is positively correlated which has a Pearson correlation value of 0,281. This proves that there is a weak correlation between individual awareness and employee awareness. Furthermore, the correlation has 0,01 p value smaller than the 0,05. Lastly, the relationship between customer awareness and employee awareness is also positively correlation which has a Pearson correlation value of 0,535. In line with this, there is a strong correlation between customer awareness and employee awareness. The correlation has 0,01 p value which is smaller than the 0,05. (See Table 10)

Table 10. Pearson Correlations of Independent Variables

<b>Correlations</b>				
		Individual Awareness	Employee Awareness	Customer Awareness
Individual Awareness	Pearson Correlation	1	.281**	.569**
	Sig. (2-tailed)		<.001	<.001
	N	309	309	309
Employee Awareness	Pearson Correlation	.281**	1	.535**
	Sig. (2-tailed)	<.001		<.001
	N	309	309	309
Customer Awareness	Pearson Correlation	.569**	.535**	1
	Sig. (2-tailed)	<.001	<.001	
	N	309	309	309
**. Correlation is significant at the 0.01 level (2-tailed).				

In addition to the bi-variate correlation, the partial correlation is also calculated. (See Tables 11, 12 and 13) This analysis aims to measure the power of a link between two variables while controlling effect of another variable(s).

If the individual awareness controlling effect is taken from the relationship between customer awareness and individual awareness, the Pearson correlation value drops at 0,475 from 0,535 but still has a strong positive correlation with p value is smaller than 0,05. (see Table 11). If the customer awareness controlling effect is taken from the relationship between individual awareness and employee awareness, the Pearson correlation value drops -0,034 from 0,281 and the way of relationship changes from positive to negative and moderate correlation from weak correlation with p value bigger than 0,05. (see table 12). If the employee awareness controlling effect is taken from the relationship between individual awareness and customer awareness, the Pearson correlation value drops from 0,569 to 0,517 but still has a strong positive correlation with p value is smaller than 0,05. (See table 13)

Table 11. Partial Correlations of Independent Variables , Individual Awareness

Correlations			Employee Awareness	Customer Awareness	Individual Awareness
Control Variables					
-none- <sup>a</sup>	Employee Awareness	Correlation	1.000	<b>.535</b>	.281
		Significance (2-tailed)	.	<.001	<.001
		df	0	307	307
	Customer Awareness	Correlation	.535	1.000	.569
		Significance (2-tailed)	<.001	.	<.001
		df	307	0	307
	Individual Awareness	Correlation	.281	.569	1.000
		Significance (2-tailed)	<.001	<.001	.
		df	307	307	0
Individual Awareness	Employee Awareness	Correlation	1.000	<b>.475</b>	
		Significance (2-tailed)	.	<.001*	
		df	0	306	
	Customer Awareness	Correlation	.475	1.000	
		Significance (2-tailed)	<.001	.	
		df	306	0	

Table 12. Partial Correlations of Independent Variables, Customer Awareness

Correlations			Employee Awareness	Individual Awareness	Customer Awareness
Control Variables					
-none- <sup>a</sup>	Employee Awareness	Correlation	1.000	<b>.281</b>	.535
		Significance (2-tailed)	.	<.001	<.001
		df	0	307	307
	Individual Awareness	Correlation	.281	1.000	.569
		Significance (2-tailed)	<.001	.	<.001
		df	307	0	307
	Customer Awareness	Correlation	.535	.569	1.000
		Significance (2-tailed)	<.001	<.001	.
		df	307	307	0
Customer Awareness	Employee Awareness	Correlation	1.000	<b>-.034</b>	
		Significance (2-tailed)	.	.558	
		df	0	306	
	Individual Awareness	Correlation	-.034	1.000	
		Significance (2-tailed)	.558	.	
		df	306	0	

Table 13. Partial Correlations of Independent Variables , Employee Awareness

			<b>Correlations</b>		
Control Variables			Customer Awareness	Individual Awareness	Employee Awareness
-none- <sup>a</sup>	Customer Awareness	Correlation	1.000	<b>.569</b>	.535
		Significance (2-tailed)	.	<.001	<.001
		df	0	307	307
	Individual Awareness	Correlation	.569	1.000	.281
		Significance (2-tailed)	<.001	.	<.001
		df	307	0	307
	Employee Awareness	Correlation	.535	.281	1.000
		Significance (2-tailed)	<.001	<.001	.
		df	307	307	0
Employee Awareness	Customer Awareness	Correlation	1.000	<b>.517</b>	
		Significance (2-tailed)	.	<b>&lt;.001</b>	
		df	0	306	
	Individual Awareness	Correlation	.517	1.000	
		Significance (2-tailed)	<.001	.	
		df	306	0	

#### 4.2 2 Findings of hypothesizes

There are 13 Hypothesizes examined in this research. This chapter aims to go through with all hypothesizes in a detail. (See Table 14) All the necessary information is given each hypothesis. Additional information related to the results can be met in case of demand. Significance level is taken as 0,05 for each analysis in terms hypothesis testing. The values above from this level are rejected meaning that falsifies the alternative hypothesis. All the necessary explanations are completed for each hypothesis separately

Table 14. Hypothesizes and Techniques used

Hypothesis Number	Hypothesis	Which technique is used for analysis ?
1	There is a relationship between Individual Awareness and Socio-Economic Determinants	Regression
2	There is difference between individual awareness for men and women	T-test
3	There is a difference between age groups in individual awareness	Anova
4	There is a difference between regions in individual awareness	Anova
5	There is a difference between education levels in individual awareness	Anova
6	There is a difference between income levels in individual awareness	Anova
7	There is a relationship between KVKK awareness and Individual awareness	Regression
8	There is a relationship between KVKK awareness and employee awareness	Regression
9	The degree of relationship between KVKK awareness and employee awareness is affected by the presence of government regulations	Moderating Analysis
10	The relationship between employee awareness and KVKK awareness is mediated by company incentives and regulations	Mediating Analysis
11	There is a relationship between KVKK awareness and customer awareness	Regression
12	The degree of relationship between KVKK awareness and customer awareness is affected by application usage frequency	Moderating Analysis
13	There is a relationship between KVKK awareness and Individual awareness, employee awareness, customer awareness, company incentives and application usage frequency	Regression

In addition to the significance level, F value is also taken into the consideration. F value determines the power of relationship between dependent and independent variable in regression analysis. It is clearly explained the effect of F value for each regression separately. Depending on the nature of the hypothesis, different statistical techniques are used including independent t-test, ANOVA (Analysis of variances), Regression and Multiple Regression. To calculate the effect of moderators and mediators, different statistical methods are used. All the hypothesis is designed by taking reference of research model given in Research Model section. Before creating the hypothesis, the link between dependent and independent variables are carefully examined for the sake of daintiness.

Hypothesis 1 suggests that; There is a relationship between individual awareness and socio-economic determinants. To test this hypothesis, it is decided to use Partial F test to see the separated effects of the determinants. The effect of age, income, region, and education have been investigated.

As can be seen from the table 15, full model calculates the effect of all variables. As a result, not all p values of the all variables in full model are smaller than the threshold of 0,05. That's why the null hypothesis is failed to reject. That means that there is no relationship between Individual awareness and Socio-economic determinants

To have a deeper understanding regarding the relationship between socio-economic determinants and individual awareness, partial F test is decided to use. All of the results are included. Firstly, gender has been excluded from the full model. The p value of the partial F test is greater than the 0,05. It means that there is no statistical difference between full model and nested model. Secondly, the age range has been excluded from to the full mode. As can be seen from the table, the p value is smaller than the 0,01 meaning that nested model and full model is statistically different. Secondly, income has excluded from the full model. As can be seen from the table, the p value is greater than the 0,01 meaning that nested model and full model is statistically different. Thirdly, education has been added to the reduced model. As can be seen from the table, the p value is smaller than the 0,01 meaning that nested model and full model is statistically different. Lastly, region has been added to the reduced model. As can be seen from the table, the p value is smaller than the 0,01 meaning that nested model and full model is statistically different. (See Table 15)



Table 15. Partial F Test of Socio-Economic Determinants

ANOVA			
	df	F	Sig.
Regression	16	6,575	<.001
Residual	292		
Total	308		

Full model predictors Education, Gender, Age Range, Region and Income  
Dependent Variable : Individual Awareness

	df	F	Sig.
Regression	1	9,129	0,321
Residual	307		

Excluded variable : Gender

	df	F	Sig.
Regression	4	5,151	<.001
Residual	304		

Excluded variable : Age

	df	F	Sig.
Regression	3	7,114	0,141
Residual	305		

Excluded variable : Income

	df	F	Sig.
Regression	3	4,178	<.001
Residual	305		

Excluded variable : Education

	df	F	Sig.
Regression	5	5,753	<.001
Residual	303		

Excluded variable : Region

Hypothesis 2 suggests that; There is difference between individual awareness for men and women. To test this hypothesis, it is decided to use Independent group t-test which used to compare means of same variable between two groups.

The results of the analysis are given in the table 16. There are 140 women and 169 Men. The null hypothesis states that there is no statistical difference between man and women regarding individual awareness score. Before passing the comparison of sig. and p value, it is important to look at Levine's Test for Equality of means. In that case, if the calculated Levine's test t value. is smaller than the threshold, there is no need to check the second comparison between significance level and p value. If that is the case,

it would mean the scores is not due the chance. However, in our analysis, this step is violated. Because of this violation, it is needed to check significance level which is given in Equal variances not assumed row. Therefore, p value in the analysis is 0,488 which is greater than the significance level 0,05. Depending on this calculation, it is not possible to reject null hypothesis which states there is no significance difference between these two group namely man and women. The null hypothesis is failed to reject (See Table 16)

Table 16. Independent T- Test of Gender

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Two-Sided p
Individual Awareness	Equal variances assumed	0.797	0,373	0,69	307	.491
	Equal variances not assumed			0,695	303.413	.488

Hypothesis 3 suggest that; There is a difference between age groups in individual awareness. There are more than 2 age group in the dataset. Instead of t test, one-way ANOVA is used. As can be seen from the Table 17, the null hypothesis is rejected, and alternative hypothesis is accepted since p-value is smaller than the threshold of 0,05. Consequently, there is a difference between age groups in individual awareness score.

Table 17. ANOVA Results of Age Groups

<b>ANOVA</b>					
Individual Awareness					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	36.363	4	9.091	15.019	<.001
Within Groups	184.003	304	.605		
Total	220.366	308			

Before creating this hypothesis, it is expected to have such a result like this since as age grows, the interaction with the technology might vary because of both physical and psychological conditions of people. Especially millennium generation makes acquainted with technological improvement at an early age. From this point of view, new generations are exposed to technological advances. Naturally they might be more interested with data and data protection laws in the future. However, as technology becomes more prevalent, it may be expected different results in future. As can be seen from the Tukey's test, there is a certain difference between specific age groups. 0-18 Age range and 50+ age range are two ranges that create difference in the group. This finding also supports the idea about the relationship generations and technology group. For 0-18 age range, there is significant difference from the other groups since the p value is smaller than 0,05. The same can also be assertable for the age group of 50 and more since the p value is smaller than the 0,05 (See Table 18)

Table 18. Tukey's Test Result for Age Groups

AgeRange	AgeRange	Sig.
0-18	18-30	<.001*
	30-40	<.001*
	40-50	<.001*
	50 or more	<.001*
18-30	0-18	<.001*
	30-40	.637
	40-50	1.000
	50 or more	.044*
*.The mean difference is significant at the 0.05 level.		

AgeRange	AgeRange	Sig.
30-40	0-18	<.001*
	18-30	.637
	40-50	.694
	50 or more	.004*
40-50	0-18	<.001*
	18-30	1.000
	30-40	.694
	50 or more	.254
50 or more	0-18	<.001*
	18-30	.044*
	30-40	.004*
	40-50	.254
*.The mean difference is significant at the 0.05 level.		

Hypothesis 4 suggests that; There is a difference between regions in individual awareness. ANOVA is used for this analysis. The idea behind this hypothesis comes from the different growth curves of different regions caused by different area of employment. To give you a specific example, Marmara Region has the first place in SEDI, Socio-Economic development Index (Dinçer et al., 2003). Also, Marmara Region plays a key role with nearly 30% in foreign trade (Selamci, 2020; Cetin 2020) As expected, it is observed a statistical difference between regions in terms of individual awareness scores. The p value is lower than the threshold of 0,05. It proves that the alternative hypothesis which is there is a difference between regions in individual awareness scores. The null hypothesis is rejected. (See Table 19)

Table 19. ANOVA Result for Region Groups

ANOVA					
Individual Awareness					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.637	5	2.927	4.311	<.001
Within Groups	205.729	303	.679		
Total	220.366	308			

To understand the source of difference between regions, Tukey test is used. There is a significant difference between Eastern and Southeast Anatolian Region and other regions. (See Table 20)

Table 20. Tukey's Test Result for Region Groups

Region	Region	Sig.
Marmara Region	Agean Region	.525
	BlackSea Region	.895
	The Mediterranean Region	1.000
	Central Anatolia Region	.105
	Eastern and Southeast Anatolia Region	.001*
Agean Region	Marmara Region	.525
	BlackSea Region	1.000
	The Mediterranean Region	.829
	Central Anatolia Region	.441
	Eastern and Southeast Anatolia Region	.022*
BlackSea Region	Marmara Region	.895
	Agean Region	1.000
	The Mediterranean Region	.915
	Central Anatolia Region	.604
	Eastern and Southeast Anatolia Region	.106

\*. The mean difference is significant at the 0.05 level

Region	Region	Sig.
The Mediterranean Region	Marmara Region	1.000
	Agean Region	.829
	BlackSea Region	.915
	Central Anatolia Region	.195
	Eastern and Southeast Anatolia Region	.016*
Central Anatolia Region	Marmara Region	.105
	Agean Region	.441
	BlackSea Region	.604
	The Mediterranean Region	.195
	Eastern and Southeast Anatolia Region	.990
Eastern and Southeast Anatolia Region	Marmara Region	.001*
	Agean Region	.022*
	BlackSea Region	.106*
The Mediterranean Region	BlackSea Region	.106*
	The Mediterranean Region	.016*

\*. The mean difference is significant at the 0.05 level.

Hypothesis 5 suggests that; There is a difference between education levels in individual awareness. Anova is used for this analysis. There is significant difference between education levels in terms of individual awareness since the p value is smaller than the threshold of 0,05. Thus, the null hypothesis is rejected, and alternative hypothesis is accepted. (See Table 21)

Table 21. ANOVA Result for Education Groups

ANOVA					
Individual Awareness					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	19.599	3	6.533	9.925	<.001
Within Groups	200.767	305	.658		
Total	220.366	308			

Before creating this hypothesis, the difference between education backgrounds in terms of predisposition of technology is examined. We expect that as the level of education increases, individual becomes more aware of the technology. To understand the where the difference comes between education level, Tukey's test is used. Especially, there is a certain difference between primary or secondary level education and other types of education levels. However, the difference between high school level between graduate and undergraduate level is not significant since p value is greater than the threshold of 0,05 (See Table 22)

Table 22. Tukey's Test Result for Education Groups

Education	Education	Sig.
Primary or secondary school graduate	High school graduate	<.001*
	University Graduate	<.001*
	Postgraduate	<.001*
High school graduate	Primary or secondary school graduate	<.001*
	University Graduate	.479
	Postgraduate	.899
University Graduate	Primary or secondary school graduate	<.001*
	High school graduate	.479
	Postgraduate	.815
Postgraduate	Primary or secondary school graduate	<.001*
	High school graduate	.899
	University Graduate	.815
*. The mean difference is significant at the 0.05 level		

Hypothesis 6 suggest that; There is a difference between income levels in individual awareness. To test this hypothesis, ANOVA is used. The idea behind this hypothesis comes from the potential effect of income on technology disposition. However, especially in Turkey, distribution of income may be regarded as unfair because of economic conditions. Whether, we expect a significant relationship between income level and individual awareness, our p value is greater than the threshold of 0,05. At that case, the null hypothesis is failed to reject. From this point of view, there is no need for Tukey's test. (See Table 23)

Table 23. ANOVA Result for Income Groups

<b>ANOVA</b>					
Individual Awareness					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.860	3	1.287	1.812	.145
Within Groups	216.506	305	.710		
Total	220.366	308			

Hypothesis seven suggests that; There is a relationship between KVKK awareness and individual awareness. To test this hypothesis, it is decided to use simple regression method. Dependent variable is taken as KVKK awareness, independent variable is taken individual awareness (See Table 24)

Table 24. Variables Entered into the Regression for Hypothesis 7

<b>Variables Entered/Removed</b>		
Variables Entered	Variables Removed	Method
	Individual Awareness	Regression

Dependent Variable : KVKK Awareness

All requested variables entered

R square is calculated which shows the correlation between the observed and expected values of dependent variable. Furthermore, paying attention to R square is more crucial. R square value as also known as the coefficient of determination shows us that 28.7% of the variance in KVKK awareness scores can be predicted from the Individual awareness. (See Table 25)

Table 25. R Square Results of the Regression for Hypothesis 7

<b>Model Summary</b>			
R	R Square	Adjusted R Square	Std. Error of the Estimate
.528 <sup>a</sup>	.279	.276	.7153

Predictors: (Constant), Individual Awareness

Calculated sig. the p value is below than 0,05. This outcome implies that the rejection of null hypothesis which is there is no statistical relationship and significance between KVKK awareness and individual awareness. This is all to say, we reject null hypothesis and accept alternative one. Consequently, there is a significant relationship between KVKK awareness and Individual awareness.

Table 26. Coefficients Table of the Regression for Hypothesis 7

<b>Coefficients</b>					
	Unstandardized B	Coefficients Std.Error	Beta	t	sig
(Constant)	0,901	0,182		4,95	0,001
Individual Awareness	0,525	0,048	0,528	10,89	0,001

Dependent variable:KVKK Awareness



Hypothesis eight argues that; There is a relationship between KVKK awareness and employee awareness. To test this hypothesis, basic regression is used. Dependent variable is taken as KVKK awareness, independent variable is taken as individual awareness. (See Table 27)

Table 27. Variables Entered into the Regression for Hypothesis 8

Variables entered/removed		
Variables entered	Variables removed	Method
Employee Awareness		

Dependent variable : KVKK awareness

All requested variables entered

R square also can be found in Table 28. The coefficient of determination shows that 17.7% of the variance in KVKK awareness scores can be predicted from the employee awareness.

Table 28. R Square Results of the Regression for Hypothesis 8

Model Summary			
R	R Square	Adjusted R Square	Std. Error of the Estimate
.420	0,177	0,174	0,764

Predictors: (Constant), Employee Awareness

Calculated sig. the p value 001, is below than 0,05. This outcome implies that the rejection of null hypothesis which is there is no statistical relationship and significance between KVKK awareness and employee awareness. As a conclusion, we reject null hypothesis and accept alternative one. Consequently, there is a significant relationship between KVKK awareness and employee awareness (See Table 29)

Table 29. Coefficients Table of the Regression for Hypothesis 8

<b>Coefficients</b>					
	Unstandardized B	Coefficients Std.Error	Beta	t	sig
(Constant)	2,202	0,089		24662	0,001
Employee Awareness	0,243	0,03	0,42	8,112	0,001

Dependent variable:KVKK Awareness

Hypothesis 9 states that; The degree of relationship between KVKK awareness and employee awareness is affected by the presence of government regulations. To test this hypothesis, moderating analysis is used. As a first step, the interaction between employee awareness and moderator so called government regulations is calculated in dataset. After this step, the regression method is used to understand the effect moderator over dependent variable namely KVKK Awareness. (See Table 30)

Table 30. Variables Entered into the Regression for Hypothesis 9

<b>Variables entered/removed</b>		
Variables entered	Variables removed	Method
Adjusted Government Regulations		Regression
Adjusted Employee Awareness		
Government Regulations		

Dependent variable : KVKK awareness

All requested variables entered

Table 31. R Square Results of the Regression for Hypothesis 9

<b>Model Summary</b>			
R	R Square	Adjusted R Square	Std. Error of the Estimate
0,447	0,2	0,192	0,756

Predictors: (Constant), Adjusted Government Regulations, Adjusted Employee Awareness, Government Regulations

To conclude, as can be seen from the table below, p value 0,024 is smaller than the significance value. Thus, it is possible to reject null hypothesis and accept alternative one. The degree of relationship between KVKK awareness and employee awareness is affected by the presence of government regulations.

Table 32. Coefficients Table of the Regression for Hypothesis 9

<b>Coefficients</b>					
	Unstandardized B	Coefficients Std.Error	Beta	t	sig
(Constant)	2,865	0,089		63559	0,001
Adjusted Employee Awareness	0,221	0,076	0,263	2,906	0,004
Adjusted Government Regulations	0,158	0,076	0,188	2,076	0,039
Government Regulations	-0,089	0,03	-0,117	-2,272	0,024*

Dependent variable:KVKK Awareness

\*. The mean difference is significant at the 0.05 level.

Hypothesis ten suggests that the relationship between employee awareness and KVKK awareness is mediated by company incentives and regulations. To test this hypothesis, regression is used. To calculate the effect of company incentives and trainings with employee awareness over KVKK awareness, multiple regression is used. (See Table 33) The null hypothesis which is failed to reject since the p-value, 0,415 is greater than the threshold of 0,05. As a result, it can be said that, the relationship between employee awareness and KVKK awareness is not mediated by the company incentives and trainings (See Table 34)

Table 33. Variables Entered into the Regression for Hypothesis 10

Variables entered/removed		
Variables entered	Variables removed	Method
Company Incentives and Trainings		Regression
Employee Awareness		

Dependent variable : KVKK awareness

All requested variables entered

Table 34. Coefficients Table of the Regression Hypothesis 10

<b>Coefficients</b>					
	Unstandardized B	Coefficients Std.Error	Beta	t	sig
(Constant)	2.219	.092		24.175	<.001
Company incentives and trainings	-.044	.054	-.076	-.816	.415
Employee Awareness	.280	.054	.483	5.188	<.001

Dependent variable:KVKK Awareness

Hypothesis eleven suggest that; There is a relationship between KVKK awareness and customer awareness. To test this hypothesis, simple regression method is used. Dependent variable is taken as KVKK awareness, independent variable is taken customer awareness. (See Table 35).

Table 35. Variables Entered into the Regression Hypothesis 11

<b>Variables entered/removed</b>		
Variables entered	Variables removed	Method
Customer Awareness		Regression

Dependent variable : KVKK awareness

All requested variables entered

R square also can be found in table 36. The coefficient of determination shows that 47.4% of the variance in KVKK awareness scores can be predicted from the customer awareness. (See Table 36)

Table 36. R Square Results of the Regression Hypothesis 11

<b>Model Summary</b>			
R	R Square	Adjusted R Square	Std. Error of the Estimate
0,689	0,474	0,472	0,61

Predictors: (Constant), Customer Awareness

Calculated sig. the p value 001, is below than 0,05. This outcome implies that the rejection of null hypothesis which is there is no statistical relationship and significance between KVKK awareness and customer awareness. As a conclusion, we reject null hypothesis and accept alternative one. Consequently, there is a significant relationship between KVKK awareness and customer awareness.

Table 37. Coefficients Table of the Regression Hypothesis 11

Coefficients					
	Unstandardized B	Coefficients Std.Error	Beta	t	sig
(Constant)	1.117	0,109		10,248	<.001
Customer Awareness	0,557	0,034	0,689	16,634	<.001

Dependent variable:KVKK Awareness

Hypothesis twelve states that; The degree of relationship between KVKK awareness and customer awareness is affected by the presence of application usage frequency. To test this hypothesis, moderating analysis is used. (See Table 38) As a first step, the interaction between customer awareness and moderator so called application usage frequency is calculated in dataset. After this step, the regression method is used to understand the effect moderator over dependent variable namely KVKK Awareness.

Table 38. Variables Entered into the Regression Hypothesis 12

Variables entered/removed		
Variables entered	Variables removed	Method
Adjusted Application Usage Frequency		Regression
Adjusted Customer Awareness		
Customer Awareness		

Dependent variable : KVKK awareness

All requested variables entered

Table 39. R Square Results of the Regression Hypothesis 12

Model Summary			
R	R Square	Adjusted R Square	Std. Error of the Estimate
0,447	0,694	0,481	0,6

Predictors: (Constant), Adjusted Application Usage  
Frequency, Adjusted Customer Awareness,  
Customer Awareness

To conclude, as can be seen from the table below, p value 0,33 is greater than the significance value. Thus, null hypothesis is failed to reject. The degree of relationship between KVKK awareness and customer awareness is not affected by the presence of customer awareness. (See Table 40)

Table 40. Coefficients Table of the Regression Hypothesis 12

Coefficients					
	Unstandardized B	Coefficients Std.Error	Beta	t	sig
(Constant)	2,850	0,037		78.001	0,001
Adjusted Customer Awareness	0,563	0,037	0,669	15.187	0,004
Application Usage Frequency	-0,045	0,034	-0,059	-1.323	0,187
Adjusted Application Usage Frequency	0,039	0,04	0,046	0,975	0,33

Dependent variable:KVKK Awareness

\*. The mean difference is significant at the 0.05 level.

Hypothesis thirteen states that; There is a relationship between KVKK awareness and Individual awareness, employee awareness, customer awareness, government regulations and application usage frequency. To test this hypothesis, multiple regression is used. KVKK awareness is taken as dependent variable. Customer Awareness, Employee Awareness, Individual awareness and Government Regulations and applications are taken as independent variable. (see table 41)

Table 41. Variables Entered into the Regression Hypothesis 13

Variables entered/removed		
Variables entered	Variables removed	Method
Application Usage Frequency		Regression
Government Regulations		
Employee Awareness		
Customer Awareness		

Dependent variable : KVKK awareness

All requested variables entered

R square also can be found in Table 42. The coefficient of determination shows that 51.2% of the variance in KVKK awareness scores can be predicted from the variables entered in the regression. (See Table 42)

Table 42. R Square Results of the Regression Hypothesis 13

Model Summary			
R	R Square	Adjusted R Square	Std. Error of the Estimate
0,715	0,512	0,504	0,59

Predictors: (Constant), Application Usage Frequency,  
Company Incentives and Trainings, Customer Awareness,  
Individual Awareness, Employee Awareness

As can be seen, from the table below, not all the sig values are below than the threshold of p value. The ones lower than the 0,05 are given in the coefficient table. However, not all the independent variables are statistically significant for this regression. That is to say, the null hypothesis is failed to reject. The alternative hypothesis is rejected. It can be assumed that there is no relationship between KVKK awareness and Individual awareness, employee awareness, customer awareness, government regulations and application usage frequency (See Table 43)

Table 43. Coefficients Table of the Regression Hypothesis 13

Coefficients					
	Unstandardized B	Coefficients Std.Error	Beta	t	sig
(Constant)	.693	.159		4.344	<.001
Company Incentives and Trainings	-.076	.042	-.133	-1.826	.069
Individual Awareness	.227	.055	.228	4.092	<.001
Employee Awareness	.111	.044	.193	2.506	.013
Customer Awareness	.428	.045	.529	9.532	<.001
Application Usage Frequency	-.027	.037	-.036	-.726	.468

Dependent variable:KVKK Awareness

\*, The mean difference is significant at the 0.05 level.



## CHAPTER 5

### DISCUSSION AND CONCLUSION

As a conclusion, the data protection is becoming more and more crucial from day by day. This situation is mainly caused by the advancement in technology and meteoric proliferation of technology. The importance of this subject comes from the use of data since it is clear the fact that data has been repurposed by companies that do not have good intention. From this point of view, the ill-usage of data disquiet people so the do governments as well. This predicament necessitates governments to take protective measures such as data protection laws. In that case, the purpose of this research is finding the degree of awareness in Turkey. The thesis aim to seek answer for the research question which is “What is the degree of KVKK awareness based on three different awareness types”. There are important findings that we have discovered in this research. First, all of these 3 awareness types namely individual awareness, employee awareness and customer awareness can be regarded as the determinants of KVKK awareness. Also, socio-demographic factors are taken as the determinants of individual awareness. As expected, there is no difference between men and women in terms of individual awareness. However, it is surprising that there is no difference between different income groups. Age Range, region and education clearly affect the degree of individual awareness. Interestingly, the difference between education levels in terms of individual awareness comes from primary or secondary school. There is no difference between high school level and graduate level. Furthermore, Eastern and Southeast Anatolian Region is the source of difference in regions.

Company Incentives and trainings are not directly mediating the relationship between employee awareness and KVKK awareness. On the contrary of company incentives and trainings, government regulations are one of the moderators that affect the relationship between KVKK awareness and employee awareness. Finally, customer awareness is one of the independent factors that affects KVKK awareness. However, application usage frequency cannot be regarded as a moderating factor in this relationship.

This research includes 309 respondents. Sample size is one the limitation in this research. Whether the numbers are adequate to interpret the results, the sample size can be widened. Access to literature is another type of limitations in this research since there is a huge gap in the topic of data protection awareness especially in Turkey. Lack of previous studies can be regarded as a limitation.

As mentioned in many times in the thesis, the advancement in the technology, and technology disposition might be the underlying factors of data protection. As more people are able to reach technological devices and be part of tech-related services, the results might be different in the future. Also, as the interaction of societies with technology increases, we might expect a certain change the findings in this research. Also, the actions of government are expected to be more commanding since their experience is also limited. The data protection laws are one of newest concepts in today's agenda. However, as time goes by governments will invest more the data protection laws and be more effective over enlightening the public. Last but not least, new generations are more technology oriented than the past generations. From this point of view, the results of this research are expected to be different in the future.

## APPENDIX

### QUESTIONNAIRE

- 1- Cinsiyetiniz? (Gender)
- 2- Yaş Aralığınız? (Age)
- 3- Türkiye'nin hangi bölgesinde yaşıyorsunuz?  
(In which region of Turkey, you are living currently?)
- 4- Eğitim düzeyiniz nedir? (Education Level)
- 5- İş durumunuz nedir? (Job Status)
- 6- İş hayatında ne kadar süre tecrübeniz var?  
(How much experience do you have in business life?)
- 7- Aylık gelir düzeyiniz hangi aralıktadır? (Income Range)
- 8- KVKK ve uygulamalarını faydalı buluyorum.  
(I find KVKK rules and its applications useful)
- 9- KVKK ve uygulamaları hakkında farkındalığa sahibim.  
(I'm aware about KVKK rules and applications)
- 10- KVKK ve uygulamaları halk tarafından farkındalığa sahiptir.  
(KVKK rules and applications are well known by public)
- 11- Devlet, KVKK ve uygulamaları hakkında halkı yeterince bilgilendiriyor.  
(Government informs public about KVKK rules and applications)
- 12- KVKK kapsamında sahip olduğum hakları biliyorum.  
(I am aware about the rights I have in the concept of KVKK)
- 13- Verbis Sistemi hakkında bilgi sahibiyim.  
(I am aware about VERBIS System)
- 14- Online Platformları sıklıkla kullanırım.  
(I use online platforms extensively)
- 15- Servis sağlayıcım KVKK ve uygulamaları hakkında beni yeterince bilgilendiriyor.  
(My service provider gives me enough information regarding KVKK rules and applications)

- 16- KVKK Sözleşmesini imzalamadan önce okurum.  
(I read KVKK agreement before sign the document)
- 17- Akıllı telefonumu sıklıkla kullanırım.  
(I use smart phone extensively)
- 18- Telekomünikasyon uygulamalarını (Signal - Whatsapp) sıklıkla kullanırım.  
(I use telecommunication application tools extensively)
- 19- KVKK ve uygulamaları ile ilgili devlet regülasyonları hakkında bilgi sahibiyim.  
(I heard about Governmental regulations regarding KVKK rules and applicaions)
- 20- Devlet regülasyonlarının bütün şirketler için bağlayıcı olduğu konusunda bilgi sahibiyim.  
(I know that Governmental regulations are binary for all companies)
- 21- Devlet regülasyonları bütün şirketleri KVKK'yı uygulamak için teşvik eder.  
(Governmental regulations force companies to apply KVKK rules and applications)
- 22- Şirketim KVKK ve uygulamalarının bilinirliğini arttırmak için çeşitli teşvikler uygular.  
(There is an incentive in my company about KVKK rules and applications)
- 23- Şirketim KVKK ve uygulamalarına önem verir.  
(My company pays attention to KVKK rules and regulations)
- 24- Çalışan/İş yeri sahibi olarak KVKK kapsamında hangi haklara sahip olduğumu biliyorum.  
(As an employee, I know which rights I have in the concept of KVKK)
- 25- Çalışan/ İş yeri sahibi olarak KVKK kapsamında kişisel verilerimin nasıl korunduğunu biliyorum.  
(As an employee, I know how my personal information are protected in the concept of KVKK)
- 26- Çalıştığınız sektörü lütfen belirtiniz.  
(Please identify which sector you are working for)
- 27- Müşteri olarak, KVKK ve uygulamaları hakkında farkındalığa sahibim.  
(As a customer, I'm aware about KVKK rules and applications)

- 28- Müşteri olarak, KVKK kapsamında kişisel verilerimin nasıl korunduğunu hakkında bilgi sahibiyim.
- (As a customer, I know how my personal information are protected)
- 29- Müşteri olarak, KVKK kapsamında hangi haklara sahip olduğumu biliyorum.
- (As a customer I know which rights I have in the concept of KVKK)
- 30- Müşteri olarak, kişisel verilerimin, onay verdiğim firmalarda pazarlama amaçlı kullanılabileceğini biliyorum.
- (As a customer, to what extent companies can use my personal limitation for marketing purposes)
- 31- Müşteri olarak, kişisel verilerimin ben istediğim zaman her hangi bir mazeret sunmadan silinmesini isteyebileceğim hakkında bilgi sahibiyim.
- (As a customer, I know when I want, any application is supposed delete my personal info.)
- 32- Müşteri olarak, KVKK dökümanını imzalamadan önce okurum
- (I read the agreement before I sign the application)
- 33- Sıklıkla online bankacılık kullanırım.
- (I use online banking often)
- 34- E-ticaret sitelerinden sıklıkla alışveriş yaparım
- (I use retail sites extensively)
- 35- E-ticaret sitelerine sıklıkla giriş yaparım
- (I shop online often)
- 36- Elektronik cihazlarımda yüklü uygulamaları sıklıkla kullanırım
- (How many times do you use applications in your electornical device monthly?)
- 37- . Elektronik cihazlarımda yüklü bankacılık uygulamalarını sıklıkla kullanırım
- (How many times do you use banking applications in your electornical device monthly?)

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