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THE TENDENCY OF TURKISH SOCIETY TO SELF-SERVICE TECHNOLOGY ESPECIALLY IN MEDICATIONS DISSIPATION

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This project is entirely the original work of student registration number 31337554. I declare that this dissertation is my own work, and that where material is obtained from published or unpublished works, this has been fully acknowledged in the references. This dissertation may include material of my own work from a research proposal that has been previously submitted for assessment for this programme.

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ABSTRACT

Background: Self-Service Technologies(SSTs) like Automated Teller Machine(ATM), Self-service Checkout Stations in grocery stores, Vending Machines and Online/Mobile Services have been used for a long time in Turkey like other countries in the world. The popularity can be used for the dissipation of the medications because self-service technologies(SSTs) are equipped with both highly technological software and hardware systems. Additionally, unneeded and excessive increasing of pharmacies and graduates of the faculty of pharmaceutical sciences create some issues and problems in Turkey.

Purpose: To solve the problems and so that patients or people can easily reach the prescribed/non-prescribed medications or other needs whenever and wherever they need them, thanks to the power of self-service technology, an enhanced vending machine for medications dissipation are designed and aimed to integrate to Turkey. Therefore, the feasibility and convenience of integration of this innovation to Turkey should be tested.

Method: To understand whether the enhanced vending machine is suitable for Turkey or not, three objectives are determined. However, the first objective is the main objective which involves the measuring of the tendency and willingness of Turkish society to the enhanced vending machine for medications dissipation, so a survey is designed and prepared to collect data from Turkish society. According to Turkish society, the hypotheses are developed by considering the different determinants like gender, age/generation and economic condition differences. The second and third objectives are aimed to examine the regulations and legislations in Turkey, and the safety and reliability of the enhanced vending machines whether it is suitable to Turkey.

Conclusion: According to data obtained from the survey, overall, people have a positive tendency to prefer to use the self-service technology so as to take their prescribed/non-prescribed medications or needs via enhanced vending machines. Moreover, the legislations and regulations do not affect the integration of the enhanced vending machine on a large scale, and like other self-service technologies like ATMs and self-service checkout stations, the enhanced vending machine is safe and reliable as far as possible. Hence, it is revealed that the integration of enhanced vending machines to Turkey is feasible and suitable.

Originality/Value: It is believed that this research is the first study which is about the usage of Self-Service Technology(SST) for the dissipation of medications. The general tendencies of Turkish society towards Self-Service Technology(SST) especially Enhanced Vending Machine has been firstly examined and measured.

Keywords: Self-Service Technology(SST), Enhanced Vending Machine for Medications Dissipation, Tendency of Turkish Society, Pharmacy, Pharmacist

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1.0 INTRODUCTION

Change, Development and Progress have been the most significant and popular notions since especially with the beginning of the 21st century. Of course, these notions have already existed and kept living since humankind existed, and they have always fascinated people. However, with the 21st century, for humanity, these notions have been not merely exciting notions anymore but becoming a philosophy of life as well. The main reason for this is the inevitable and uncontrollable enhancement of technology. This situation is easily explained with a snowball effect since technologic enhancement is directly related to the scientific progresses which provide and create new horizons and topics for other scientific progresses. In fact, with the entrance of the internet into people's lives and getting easy of the communications, the scientific progresses became spread quicker than before so technological developments burst. That is, the more the science enhances, the more technological developments increase and the more technological developments spread, the more science progresses. Therefore, this relation between science and technology is very similar to the formation of snowball. All of these developments and progresses bring change. Change is the only real which is inevitable. Heraclitus also said centuries ago that "The Only Thing That Is Constant Is Change".

With technological developments, this reality of change continuously occurs in the daily lives of people. That is to say, technology entered people's lives in such a way that people could not live without it. Before the 21st century, while technology could be easily controlled in a direction of human decisions and impacts, after the 21st century, technology has started to direct the people's behaviours and lifestyles even if people cannot easily keep in step with it. The main reason of why people cannot keep up with change is the ambiguity of change. In fact, change generally is a process which has a lot of stages that are easily coped by people thanks to technology. However, most people all around the world tend to protect their habits and customs, and they are reluctant and sceptical to unfamiliar things, and their responses against change also differ due to differences between their culture, generation, socioeconomic conditions and experience of them. Indeed, culture is a really vital element when change matters. It is because, the culture of society determines the behaviours, customs and habits of people who live in this society so

change shows different consequences from society to society. Geert Hofstede and Michael Minkov (2010) also highlight this situation in his research about Dimensions of Culture, and he examines the culture under six headings which are Individualism, Power Distance, Masculinity, Uncertainty Avoidance, Long-term Orientation and Indulgence. Among these dimensions, Uncertainty Avoidance is directly related with the change element because it expresses the extent of the uncomfortableness level of people who are the member of the society against uncertainty and ambiguity (Hofstede and Minkov, 2010; Hofstede-Insights). As it is mentioned above, ambiguity and unfamiliarity of new things may create unrest, panic even fear. Thus, introducing and integrating the new things to the societies needs foreground and detail examinations and researches about their culture and habits to understand how they face with the change and how they react to the change.

The changing, developing and progressing of technology so fast direct and even oblige to people live faster because being slow means losing time and inefficiency. That is, in the modern world, time is regarded as tremendously significant by people who try to make or finish their works or daily chores as fast as possible. The reason of this perception derives from several reasons like capitalism, “Time is Money” notion. However, the other reason of this is again related to the speed of technology which is utilized by people. In other words, the speed of the internet, the speed and capability of processors in devices and other examples like these help and lead people moving fast, so people want to quickly complete their works especially their daily chores like banking transactions, booking tickets or shoppings. Therefore, with help of the technological devices invented and developed, people can easily and quickly make a lot of works and activities they have to. Of course, as it is mentioned before, at first, all of these ‘miracle’ technological devices were not welcomed with cheers or love from the society where they were implemented. However, after, adaptation period, it is evident fact that most of them are the fundamental and nearly indispensable part of people’s lives.

In the light of the information above, there is a specific technological area that has been developed and used for a long time so as to facilitate and expedite the lives of people in a really effective and efficient manner. Moreover, nowadays, this main technological area involves numerous sub-technologies which thoroughly provide service to the several activities of people in their lives. It is called the “Self-Service Technology(SST).” When it is firstly heard, it may be supposed that it is a new

technology because most people only know and have information about the sub-technologies which are included the Self-Service Technology. The most popular Self-Service Technologies are Automated Teller Machines(ATM), Vending Machines, Self-Service Checkout Stations in grocery stores or supermarkets. These and some similar technologies are the tangible ones, in addition to them, online services like online banking are involved the Self-Service Technologies. At real, as it is understood that this is a highly broad topic. Thus, it should be examined under the special heading.

1.1 Self-Service Technologies(SSTs)

The main aim of the self-service technologies is the automation of the retailing, and it is defined as "...technological interfaces that enable customers to produce a service independent of direct service employee involvement" (Meuter et al., 2000; Orel and Kara, 2013). Self-service technologies are beneficial for both customers and owners of the business. It is because, with the power of the technology, whereas in the perspective of the customer, SSTs provide easy, fast and secure services, in the perspective of the owner of the business, SSTs reduce the costs in a serious manner. It is because, in most of businesses, self-service technologies replace with the employee so they reduce and eliminate employee expenses like salary, insurance. Moreover, they also eliminate employee-related expenses like heat, light or other human needs expenses. In addition to these, for customers, they enable the free of turn services like online services like online banking or online booking. People can make their works or activities wherever there is the internet. Besides, online services are not the only advantage of SST. There are several tangible self-service technologies that are vital for the daily lives of people. As it is mentioned, SSTs go into division as tangible and online services. Both parts are designed and implemented to make absolutely easy most of the works in peoples' lives. If it is started to examine the tangible part, first of all, Automated Teller Machines(ATM) are regarded as an initiator and pioneer of the self-service technologies. When it was first introduced, most people did not trust these machines because they got accustomed to using cash money as a direct exchange method. When people had to use to make their payments via ATM, machines had been taking their money but people could not believe their payments were done (Kaur & Gupta, 2012). The reason of

this, people did not know the working principle of these machines, and technology knowledge of people was highly low due to the unfamiliarity of technological devices. However, after getting rid of their inexperience, people started to grasp the advantages of the system. Now, most people prefer to use ATMs for their transactions instead of waiting for long lines in the bank branches. According to the 2018 statistics, in the world, there are approximately 3 million ATMs and this number has been increasing progressively (Szmigiera, 2019). The purpose of comparing old times with new times is to show how the habits of people can change in a serious manner. In addition to ATMs, for a long time, pay at pump systems in the gas stations have been using in most of the countries like America, countries in Europe (Orel and Kara, 2013; Dean, 2008; Cho and Fiorito, 2010). People have been using the self-service system to buy fuel without taking help from any employee. However, some countries like Turkey have not been using this system in their gas stations. Therefore, in Turkey, there is an occupation that people are responsible to fill up fuel to the customers' car. Moreover, there are substantial amount of self-service kiosks that provide numerous services. For example, in theatres and cinemas, audiences can buy the ticket on their own, and in libraries, self-service kiosks help people return the books easily. Additionally, in very recent years, in airports, people can check-in and deliver their baggages on their own with the help the self-service kiosks. Besides, in recent years, self-service checkout stations in retail or grocery stores have been progressively increasing all around the world. Self-service checkout stations help customers scan their own products without waiting for the employee for scanning. These checkout stations are not merely beneficial for customers but the retail or grocery stores. It is because, traditional stations occupy more places than self-service checkout stations so retail and grocery stores are unfortunately obliged to allocate a really significant amount of places for traditional stations, and they have to provide numerous traditional stations to avoid the congestion and long customers' lines. However, if retail and grocery stores prefer to integrate the self-service checkout stations for themselves, they can diminish or eliminate employee expenses, and they can create more free spaces for other products.

The other halves of the SSTs are online services. The main benefit of online services is that customers can do their works remotely wherever they want thanks to especially the internet and special software technologies. Online banking is one of the most popular self-service technology because people can make most of their

transactions via online banking without going to the bank branch even ATM. Moreover, people can easily buy a train, plane, cinema, musical, opera tickets with online services. In addition to these, people can also buy their clothes, books or any needs from internet sites like Amazon, eBay. These online retailers are extremely popular in these days because people can quickly reach their needs without leaving their warm houses. Besides, owing to rising internet speed all around the world, online streaming technology which totally is in the scope of the self-service technology has boomed. That is, without going to the store to physically buy the products, or without downloading, while the companies like Netflix or Disney have been providing online film, series or documentary streaming to their users, some gaming companies like PlayStation or Xbox have been providing the online game streaming to their users. In addition to this, libraries provide also this online service and streaming technology to people. However, as it is evident fact that all of these online retailers and streaming companies require customers to pay online in return for their services therefore since most people did not trust and were unaccustomed to online payment, for a long time, they hesitated to use these online services. Nonetheless, now, the habits and customs of people have substantially changed and also continue to change in a positive way for SSTs.

On the other side, after the overspread of the smartphones, the all explained online services and streaming technologies have become more reachable thanks to phone applications that have simple and goal-driven interfaces. Thus, most of the organizations and companies like transportation companies, banks and online retailers prefer to develop their own mobile applications to attract the more attention of customers and reach them easily.

Of course, online services look better and faster than the tangible and more machine-based self-service technologies but online services cannot always meet the needs of the customers or people. It is because, there are substantial amout of people who prefer the grocery stores instead of online shopping since they want to choose the products which they will buy on their own hand. Therefore, self-service checkout stations in grocery stores serve people mentioned. Moreover, even if the popularity of cash money decreases in the modern world, people might sometimes need cash money so they have to use ATMs. In addition to all of the explained tangible and online SSTs, in the table below, it can be seen the different methods of services which are changed, developed and progressed with the advancing

technology and the spread of the self-service technology. Briefly, self-service technologies(SST) have become an essential part of people's lives.

Service Indusrty	Human Contact	Tangible Machine Assisted Service	Online service
Retail Banking	Teller	ATM	Online Banking
Grocery	Checkout Clerk	Self-checkout Station	Online Order/Pickup
Airline	Ticket Agent	Check-in Kiosk	Online Check-in
Restaurants	Waiting Staff	Vending Machine	Online Order/Delivery
Movie Theatre	Ticket Sales	Ticketing Kiosk	Online Sales
Book Store	Shop Assistant	Stock-availability Terminal	Online Ordering
Education	Teacher	Computer Tutorial	Distance Learning
Movie Store	Shop Assistance	Stock-availability Terminal	Online Streaming
Game Store	Shop Assitance	Stock-availability Terminal	Online Streaming
Retail Store	Checkout Clerk	Self-checkout Station	Online Shopping

Table 1.1: The Progress of Self Service Technology(SST)
Source: (Orel and Kara, 2013; Fitzsimmons, 2003)

1.2 Problem Definition and Purpose of The Research

Technological developments are the main force behind the change, development and progress. In fact, they affect all occupations and their traditional working styles which are familiar to people. However, as it is undeniable fact that its contribution to the health sectors is one of the most important contributions for people. That is, advancing technology has significantly affected the health sector positively. It is because, the technological development in the health sector does not merely facilitate people life but extend the life expectancy of people as well. Every year, in the health sector, a substantial amount of inventions and improvements like new drugs or vaccines, new mechanical or autonomous arms to ease the surgeries show up, so the average life expectancy of the world population increases gradually. "The United Nations estimates a global average life expectancy of 72.6 years for 2019. [….] after two centuries of progress we can expect to live much more [...]. And this progress was not achieved in a few places. In every world region people today can expect to live more than twice as long."(Roser et al. 2013). However, as it is mentioned, these SSTs change largely the traditional way of services, and they create some problems due to change. New systems or technologies like self-service

technologies supplant the traditional way so some occupations like gas pump attendant, and old systems begin to wipe out.

Like technology, self-service technologies make also a huge contribution to people's lives. However, self-service technologies do not mostly be used in the health sector. There are a lot of reasons behind this, and it is acceptable that ordinary people cannot, of course, perform surgery on themselves by using some self-service robots or devices without doctors. However, people can buy their drugs/medications from vending machines which are enhanced for this purpose. Although self-service technologies help people to make their works or activities generally more fast and less effort, self-service technologies do not nearly be used for medications dissipation in countries. There are some simple examples in Sweden and a bit more developed versions in the USA but they are not fully autonomous and they are not totally integrated to the health systems of their countries. Therefore, people have been preferring to use them to take their non-prescribed medications and they have to go to the pharmacies or other medications dissipations stores like Boots(in the UK) for their prescribed medications. Thus, this situation has been often creating a problem for people because these stores mostly are closed at nights and holidays. Of course, in most countries, there are night-pharmacies or pharmacies on duty but due to the restricted numbers, people have difficulty finding and go to the night-pharmacies to take their medications. This situation makes people desperate in such a speed and technology age.

A similar situation is very common in Turkey. Pharmacies approximately are opened at 8 am and closed at 7 pm and also they are totally closed on Sunday. These working hours and days can differ from cities to cities according to the decisions of their chamber of pharmacists of cities. However, it is evident fact that in Turkey, patients should go to the pharmacies so as to take their prescribed medications. Thus, if pharmacies are closed, either patient has to search a pharmacy on duty or patient has to wait until the next day. Both situations are problematic from the point of patients. It is because, especially at night, when transportation is not very sufficient, patients have difficulty in reaching the pharmacy on duty so they are obliged to find the pharmacies or wait until the next working day. Both cases are very desperate and unpreferable for patients.

In addition to this, the other problem in Turkey is that the pharmaceutics profession is extremely popular and most of the young people try to enter the faculty

of pharmaceutical sciences and the high percentage of graduates is willing to open their own pharmacy. However, in Turkey, although there have already been more pharmacists and pharmacies than the limit number, the earnings of existing pharmacies have naturally been decreasing more progressively due to new pharmacies opened (Tekiner, 2013). Nevertheless, in Turkey, there are 50 faculties of pharmaceutical sciences, and every year, almost two thousand students have also graduated from these faculties. As it is mentioned nearly 91% of pharmacists work as a private such as opening own pharmacy, opening drugs warehouse or being pharmacist at hospitals and rest of them works either in the health ministry or in universities as an academician (teb.org, 2019). This situation creates a problem for both existing and future pharmacists.

Indeed, there is a worse situation that the Turkish government naturally spends a substantial amount of money for the education of huge and redundant amounts of pharmacists every year so it creates money loss for the government (Tekiner, 2013). Due to some political reasons, the government has not been decreasing the number of the faculty of pharmaceutical sciences since the government cannot find a suitable reason for decreasing without damaging the authority of government.

On the other hand, the traditional pharmaceutics era almost close because in the 20th century, due to lack of patent medicine, most of the doctors had been writing the specific chemical substances as a prescription for the medicines, and according to these prescriptions, pharmacists had been producing drugs and had been making them ready for the usages like scientists or chemists. These procedures were extremely significant, and as it is well known that it was required a lot of attention. However, today, doctors only write the name of patent medicines or drugs, and patients go to the pharmacies to take their drugs. That is, pharmacies have started to remind of ordinary grocery stores but the problem does not derive from only doctors or pharmacists, at real, the general system includes some mistakes.

As it is seen that the situation is not good and poses a problem from the perspective of patients, pharmacists and the government in Turkey. Therefore, in this research, the solution will be proposed so that patients can reach their non-prescribed and also prescribed medications fast and secure whenever they want independent to time of the day, or day of the week, pharmacies can increase their earnings or decrease their expenses and Turkish government cannot allocate the

redundant budget for the faculty of pharmaceutical sciences. This solution gets strength from self-service technology. That is to say, a fully autonomous vending machine which is developed and enhanced for Turkish Health System can be used for the solution of the all problems in this system.

With this research, the tendency of Turkish society to self-service technologies(SST) especially for medications dissipation via enhanced vending machines will be examined and their opinions will also be collected with the survey. Thus, at the end of the research, it will be understood and revealed that to what extend the enhanced vending machine which is totally part of the self-service technologies is suitable or preferable for the Turkish society and the Turkish Health System.

2.0 CONCEPTUAL BACKGROUND INFORMATION AND HYPOTHESES DEVELOPMENT

2.1 Turkish Health System

As it is mentioned before, pharmacies exist to provide essential and necessary medications and treatments to society so they are a warm medical advisor for society in addition to doctors (Tekiner, 2013). In old times, before the prefabricated medical drugs became widespread, in Turkey, doctors prescribed the active substances which were required to the appropriate treatment into the hardcopy health record of the patients. After then, according to these substances, pharmacists made the medications ready to use like scientists so, in most countries, pharmacists are called as chemists. Thus, in those days, pharmacists were remembered with high respect.

After the development of mass production in the health industry and the spread of premade medical drugs, the general operation mechanism has changed because pharmaceutical companies like Novartis, Glaxo Smith Kline, Pfizer or Bayer started to produce and sell their own drugs (Semin and Güldal, 2008; Galitsky et al., 2008). Therefore, the pharmaceutical industry turned into a big market that includes numerous and infinite customers, so big companies started to compete with others, and they developed similar drugs for the treatment of the same disease (Semin and Güldal, 2008; Milanesi et al., 2019). This is because, doctors abandon to write active substances for medications, and they prefer to prescribe premade drugs by pharmaceutical companies. It is because, it is an easier and a practical way for them because it is more difficult to realize appropriate substances for every disease. Therefore, pharmacists do not have to make drugs from scratch so this situation is also better than old times. They only read and give the necessary drugs which are prescribed by doctors to the patients.

Hence, from that time to now, companies have tried to increase their sales, and within this scope, in Turkey, these companies employ workers who are known as pharmaceutical representatives to convince the doctors and pharmacists so as to rise up their sales (Kisa, 2006). That is to say, first of all, these representatives regularly visit the doctors which work in their own service area assigned by the company, and they introduce their new drugs, and then they request to prescribe their own drugs.

However, mostly, this situation does not only conclude with requests since these representatives propose some ‘benefits’ to convince them (Çelik and Seiter, 2008). After visiting the doctors, representatives also visit the pharmacies in their own service area to sell their own drugs. To convince the pharmacists, they say they persuaded the doctors to prescribe their own drugs. Therefore, pharmacists trust to them and decide to buy drugs. Of course, according to the number of drugs bought by pharmacists, representatives give some discounts or make some promotions to them with the authorization of pharmaceutical companies. This process continues without showing the remarkable change. Of course, there are some additional significant stakeholders like pharmaceutical warehouse companies in Turkey, but this is the commercial dimension of the system.

In 2003, the Turkish Health System passed to the electronic system with the “Health Transformation Program” (Tatar et al., 2011; Agartan, 2015; Tehiner, 2013). As it is mentioned that before the new system, every person had got a hardcopy health record, and when they went to the doctor to get examined for their sicknesses, according to their sickness, doctors prescribed the necessary premade drugs into the hardcopy health records of patients. After the doctor examination, patients went to the pharmacies, and, to the pharmacies gave the page of the health record which the medications were written on it by doctors so pharmacists prepared the medications or premade drugs by reading the page of a record. This system was not very secure and reliable because some of the pharmacists and patients abused the system by using the vulnerability of a manual system (Çelik and Seiter, 2008). However, with the help of technological developments, the Turkish government preferred and passed to the electronic/online system. At the start, doctors, pharmacists and patients experienced some difficulties due to both system errors and their own lack of knowledge which is absolutely normal. It is because, at first, every innovation or change comes with their difficulties but these difficulties derive from the unfamiliarity of them. In fact, in the forthcoming days, the new system started to work more smoothly and more reliable since it was introduced. Now, the system works nearly perfect, and it easily keeps pace with the alterations and developments of the health system and technology. The reason of this, owing to the online system, developments and innovations can be easily and unerringly implemented without making new regulations.

With the new system, when patients go to the doctor for examination, doctors have been prescribing the drugs of patients by using the online MEDULA (*Medikal-Ulak*) system which means medical messenger in Turkish (Tekiner, 2013), and doctors have been giving only a special code which belongs to the patient, so it is evident fact that the hardcopy health records do not use in the new system. When patients go to the pharmacy, they have been giving the special code and their personal identification number to the pharmacists, and then pharmacists have been entering these two data to the MEDULA system, and they can see the drugs. According to the online system, pharmacists have been preparing the necessary drugs and giving them to the patients.

In addition to all of these information, in the scope of the new health system, there are two main topics to emphasise. At first, patients are charged according to their healthcare organization they prefer. That is, in compliance with the new system, if patients prefer to go to the primary care clinic, they do not be charged but if they prefer to go to the public hospital or other private healthcare organizations for examination, they are charged as 8TL or 15TL respectively. These chargings are called as an examination fee and these examinations fees are collected by pharmacies when patients come to take their medications. When the government makes payments to the pharmacies in return for their services, it collects the amount of examination fees by deducting this amount from its payment.

At the second stance, the Turkish government implements the application of “Base Price” or “Reference Pricing” which is determined according to the prespecified Europe countries for the payment of medications in the scope of the new health system (Tatar et al., 2011; Semin and Güldal, 2008; Çelik and Seiter, 2008). That is, as it is explained before, there are several similar drugs/medications for the treatment of the same sickness so that within the scope of reference pricing, the government prefers to lowest price drug among all drugs which are used to same treatment within payment scope (Tatar et al., 2011; Çelik and Siter, 2008). Therefore, if doctors prescribe the more expensive drug/medication for the treatment of patients, and patients prefer to take the exact medication prescribed by the doctor from the pharmacy, they have to pay the price difference between the two drugs to the pharmacy (Tatar et al., 2011; Çelik and Seiter, 2008). Meanwhile, the MEDULA system allows pharmacists to give “Equivalent Drugs” which are used for the treatment of similar sicknesses or diseases, instead of medications prescribed by

doctors to the patients (Tatar et al., 2011). That is, if patients or pharmacists want to change the medications with the “Equivalent” version due to some reasons like a high price, the system allows the pharmacist to choose one of the medications among all equivalent medications (Tatar et al., 2011). Consequently, the Turkish government makes payments to pharmacists according to the lowest price medications, so pharmacies compensate their loss by taking the amount between the medications the government approves and medications patients prefer.

Besides, with the new health system, the government can easily track the medications thanks to the 2-D barcode (squarecode) system. Owing to this system, the government can easily identify and monitor which drug is where and who uses it (Tekiner, 2013). From importation to the patient, medications are followed. This system increases the security so that the abuse of the medications can be prevented.

2.2 Enhanced Vending Machine for Medications Dissipation

The main and most significant feature of this enhanced vending machine that can operate 24/7 is that it can be capable of doing nearly everything which pharmacies can, and this enhanced vending machine is planned to operate at the display window of the pharmacies like ATMs in the banks. Therefore, all responsibility of this machine will belong to the pharmacy in which it is integrated. Moreover, all benefits of this machine will also belong to the pharmacy it is integrated. That is to say, as it ultimately is a vending machine, it will need the reload process so pharmacists will be responsible to load the medications suitable places so that the machine can work properly. Besides, when this machine is firstly integrated into the pharmacies, it is adjusted to connect to the MEDULA system so by using pharmacies’ MEDULA account, it makes its operations, and thus pharmacies can make a profit even though it is at nights or in holidays. Thanks to this machine, some pharmacists who do not want to be on duty at night or on holidays can earn money. In addition to this, as this enhanced vending machines can do nearly everything pharmacies can, this machine will decrease the workload of the pharmacy because some patients will prefer this machine so as to take their medications. Therefore, pharmacists can decrease their expenses by employing fewer employees or working on their own in their pharmacies. However, of course, there will be an installation cost at the beginning, and some maintenance costs in the upcoming years. By

considering the price/performance ratio and advantages/disadvantages, this machine can be beneficial for the pharmacies. For instance, ATMs can make a lot of transactions employees of banks can do, and in grocery stores, only one employee is enough to control the five or six self-checkout stations (Kaur and Gupta, 2012, Orel and Kara, 2013; Weijters et al. 2007). Briefly, from the pharmacists' perspective, this enhanced vending machine for medications dissipation can increase the earnings by operating 24/7, and decrease the workload and some expenses of pharmacists although it comes with its responsibility and overhead costs.

From the patients' or customers' perspective, this enhanced vending machine will provide quick, reliable and secure service. As it is a machine, it prepares the medications of patients faster than pharmacists or employees. It is because, as it is explained in the Health System in Turkey part, the patients' ID number and the special code should be entered the MEDULA system and medications should be prepared manually, so that patients can take their medications and this causes a loss of time but machines can make the same operation faster. Moreover, with advancing technology, machines can operate more reliably. Reliability means that "the ability of an apparatus, machine, or system to consistently perform its intended or required function or mission, on demand and without degradation or failure." (Sun, 2013). Although the mobile phones or computers are extremely sophisticated devices that are capable of doing numerous things, their reliability is very high. However, as this enhanced vending machine can make simpler tasks than mobile phones or computers can so its reliability is much higher. Thus, patients can take their medications in safe. In fact, if patients do not be sure about their medications, they can immediately and directly ask the pharmacist whether the medications are correct by entering the pharmacy which the enhanced vending machine is integrated. Hereby, they can quickly take their prescribed or non-prescribed medications and can be certified their medication(s) to the pharmacist if they distrust the enhanced vending machine. Pharmacists can quickly determine the faults by checking their MEDULA system which is mutual with the machine, and they can compensate for the deficiency or mistake.

In terms of security, as it is explained, the enhanced vending machines for medications dissipation should make some money transactions due to necessities and legislations of Turkish health systems like collecting examination fees from patients. Therefore, this machine will be also similar to the ATMs and self-checkout

stations from the point of money transaction. That is, they will be able to easily accept the cash money or credit card for payments and give the changes of patients. As it is known, these operations are a very common and ordinary process for the machines so there will be no security problem on this topic. On the other hand, enhanced vending machines will work with the scanning of the personal ID cards of patients or customers so this factor will increase the security of the enhanced vending machines because owing to this, the machine can control the age of the patients or customers whether they are convenient to take medications or not. As might be expected, these enhanced vending machines for medications dissipation will not be totally secure unless there is a security protocol like this especially for children. Therefore, children have to prefer either pharmacies or they have to also scan an adults' ID cards to take their medications. That is, children can only use this machine under adult supervision or they can use it for some medical products like bandages and some Over-The-Counter(OTC) medications.

From the government perspective, since this enhanced vending machine which is integrated into the pharmacy will be responsible to follow the Turkish Health System regulations, it should meet all legislations and regulations of the system. In fact, the enhanced vending machine will be directly connected to the MEDULA system by using the account of pharmacy which it is integrated, so with some security-related modifications, there will be no problem in terms of software. Moreover, in terms of physical operations like money transactions or delivering the medications, the machine will be designed according to both features of simple vending machines and features of self-checkout stations. Thus, this machine can scan the QR code of the medications of patients before delivering them, thanks to this feature, by removing the medications from the inventory of pharmacies, they can follow the regulations of the Turkish Health System.

In addition of these, the enhanced vending machine for medications dissipation has some extra features like showing the location and the address of the other enhanced vending machines and pharmacies on duty. If patients or customers want to take their medications or needs from pharmacies on duty at night or in holidays, it can help them thanks to this feature. Besides, enhanced vending machines cannot naturally hold the all medications prescribed by doctors, but they can hold the most of the medications that are equivalent to the prescribed medications according to the Turkish Health System. Therefore, if patients do not

want to take the equivalent medications, they can prefer the other enhanced vending machines or pharmacies on duty so as to take their own medications. Additionally, patients can also check whether they have any of their examination fees or not, and they can pay off their fees whenever they want. Last but not least, of course, together with medications of patients, the enhanced vending machine can also deliver the medications' "how to use guide" which is according to prescription, and if patients lose the "how to use guide", they can take/print it again whenever they want.

All in all, the main specifications and features of the enhanced vending machines for medications dissipation are explained above, and its advantages and disadvantages based on the machine not to the whole system are highlighted above in perspectives of pharmacists, patients/users and government.

2.3 Working Principle of Self-Service Enhanced Vending Machine for Medications Dissipation

As it is evident fact that this enhanced vending machine should be able to make every service as a substitute of pharmacies so the ability of the machine should be determined well. First of all, the physical specification of this machine should be considered, and the dimensions of the machine should be big enough to reserve a substantial amount of drugs in it. Therefore, this enhanced vending machine is approximately a little bit bigger than Automated Teller Machines(ATM). In fact, as a physical appearance, this enhanced vending machine looks definitely like the ATMs, it does not look like the self-checkout stations in the grocery stores.

However, technologically, this enhanced vending machine has a highly well-supported and extensive software system just like self-checkout stations in the grocery stores. It is because, ATMs are simpler and provide more specific service to users, but self-checkout stations are mostly 'user-centric' and provide broader service. That is, users are more active and part of the process while using the self-checkout stations. In this perspective, using the automated drugs machine bring a very similar experience to the user just like self-checkout stations. The general working mechanism of the enhanced vending machine is that, to begin with, patients go to the doctor for examination and at there, the doctor prescribes the necessary medications by using only the personal identification number of the patient by means of the online MEDULA system. After examination, patients go to the enhanced

vending machine to take their medication(s). When they arrive at the machine, they scan their personal identity card to the machine that can read the ID cards in a contactless way. After this process, patients can see their exact same medications prescribed by the doctor on the screen of the machine, and they can continue to process by confirming the medications. In the meantime, the machine can ask a question to patients, whether they prefer to equivalent medication(s) or not. It is because, as it is known that, the machine may not contain the prescribed medication(s) at that moment, or prescribed medication(s) may be expensive than 'equivalent medication(s)'. If the enhanced vending machine does not contain the prescribed medication(s) and if patients do not also want to prefer equivalent medication(s), they can cancel the operation and leave from machine to take their medications different places. However, if patients want to prefer the equivalent medications for any reason, the screen of the machine shows the charge patients have to pay originating from the examination fee and also the fee difference between the prescribed medication(s) and equivalent medication(s). When patients confirm the charge, the enhanced vending machine requests to pay the charge, and patients pay it by using their credit card or as cash. After the transaction, the enhanced vending machine prepares and delivers the medication(s), and also "how to use guide" as a receipt.

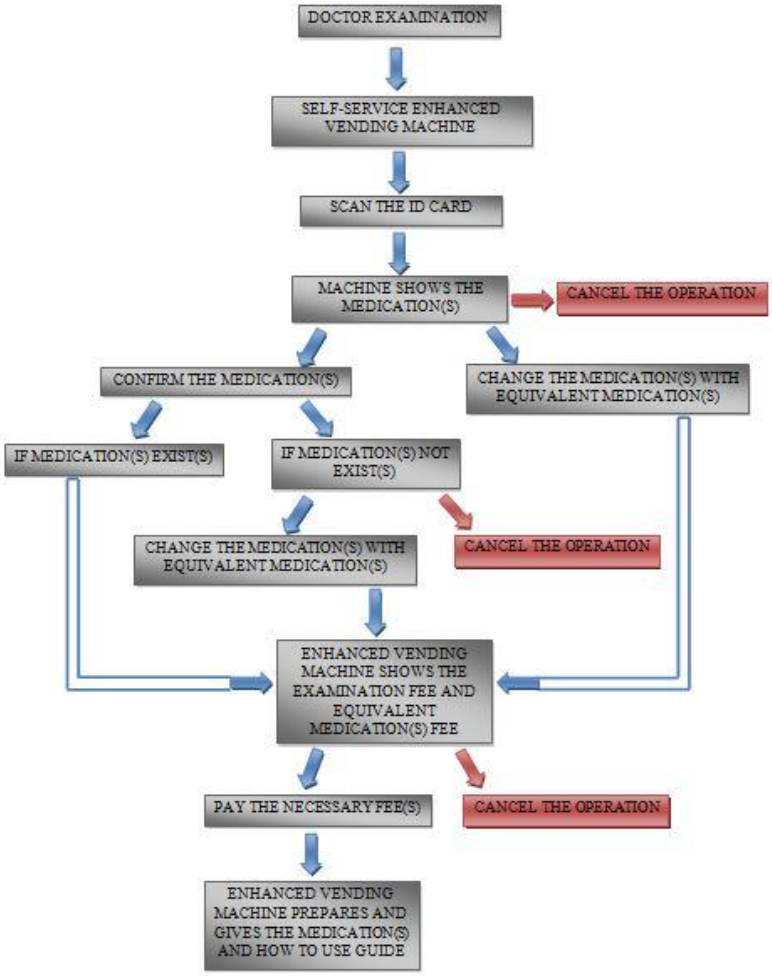

Figure 2.1: Working Principle of Self-Service Enhanced Vending Machine for Medications Dissipation

2.4 Research Question and Hypotheses Formation

After all of the information and details so as to become clear the essentials of the research, within the scope of research purpose, the research question and hypotheses will be introduced by considering and being supported by the other literatures mainly related with the Self-Service Technologies(SST) and Turkish Health System.

As it is mentioned, this research mainly targets to examine the tendency of Turkish society to self-service technologies(SST) especially for medications dissipation via enhanced vending machines. Of course, this is not easy as much as it has been thought because this procedure depends on several factors which will be analysed one by one in this research. First of all, the overall research question of this research is; *"On average, is an integration of enhanced vending machines so as to dissipate the medications in Turkey convenient and feasible?, and To what extent is it possible?"*

The main aim of this research is to answer this question, and proves this with various proofs and evidences. This research actually contains a lot of subtopics which create serious difficulties since as it is explained before, this situation is completely new for Turkey although some simple and basic examples exist now. However, in Turkey, this type of fully autonomous enhanced vending machine for medications dissipation which is introduced in this research is not in use now. Therefore, as it is a technological device, there are various determinants that affect the tendency of people in Turkish society. That is, Turkey is one of the highest population countries around Europe, and there are more than 83 million people live(tuik, 2019), and it means that there are a substantial amount of different type of people. However, overall the tendency of society will be examined by considering some fundamental determinants.

2.4.1 Gender

Gender is one of the most significant criteria in order to measure the general tendency of the society. It is because, the gender differences really affects technology usage and the willingness towards the technology of the people. Bert Weijters et al. (2007) made a research titled "Determinants and Outcomes of Customers' Use of Self-Service Technology in a Retail Setting". In this paper, they

aimed to measure the customer attitudes toward self-service technology. The study generally has examined the benefits of self-service technology from the perspective of customers and retailers. Researchers mainly used the survey method in order to measure the key drivers which affect the customers' attitude. These key drivers they used are the 'usefulness', 'perceived ease of use', 'reliability' and 'fun'. In addition to key drivers, they also researched the effects of differences of gender, age, and education on self-service technology attitudes of customers (Weijters et al. 2007). In their research, they stressed that different genders prioritize the different things in their shoppings so, in terms of their technology usage, men usually tend to use technology if it is more efficient but women generally perceive the technology as a challenge not an ease (Weijters et al. 2007). In fact, the result of their research showed that the 'perceived usefulness' of SST is not important for women than men. That is, men consider self-service technology 'more' useful.

In addition to this paper, in most papers related to self-service technology, gender is regarded as a distinctive factor to investigate the attitude of customers or users towards SST. Therefore, the tendency of Turkish society towards the medications dissipation via the enhanced vending machine which is the part of the self-service technology obviously differs from gender to gender. Thus, according to the literatures reviewed and observation of the researcher about willingness differentiation to technology usage between men and women, the first hypothesis of this research is;

H1. *Men have more tendencies to prefer to use the enhanced vending machine for medications dissipation than women.*

2.4.2 Age or Generation Differences

Since the main topic is related to technology, as it is inevitable fact that the age of the users or customers becomes the other significant determinative element for the research. It is because, as it is explained in the introduction part, in the last two decades, the revealing of technological developments has accelerated progressively, everyone in the world has been struggling to keep pace it. Of course, the young population is more familiar with the technology, since they have been being born in the technological age. However, now, there are a substantial amount of people from different age groups so most people have been struggling more than others. In fact, specific age groups are divided as a 'Generation', and these

generations have distinctive characteristics. Nowadays, there are primarily four different generations classified; Baby Boomers, Generation X, Generation Y, Generation Z, and today, people from these generations are more widespread (McCrindle and Wolfinger, 2011). Among these generations, whereas 'baby boomers' is the oldest generation, 'generation Z' is the youngest generation. In addition to these, there are much oldest generations, and much youngest generation which is Generation Alpha but their impacts on the current modern world are so negligible that they are not considered (McCrindle and Wolfinger, 2011; Robinson, 2012).

These generation and age differences definitely affect the self-service technology usage, and tendency to them. Dwane H. Dean (2008) made a research on this topic, in his paper titled "Shopper age and the use of self-service technologies", he investigated how customers' age direct their behaviors and tendencies towards to self-service technologies. To measure customers' attitudes towards SST, he prepared a questionnaire to collect ideas from different age group customers who use the self-checkout stations in the grocery stores. According to his research, older customers were less confident in using SST so they generally did not prefer to use the self-checkout stations even if they are available, and they also often need an employee interaction much more than younger customers. Moreover, younger customers had much more experience with other types of SST than older customers so they are more confident while using the self-checkout stations in grocery stores (Dean, 2008). In addition to these literatures, there is a similar literature titled "Supermarket self-checkout service quality, customer satisfaction, and loyalty: Empirical evidence from an emerging market" by Fatma Demirci Orel and Ali Kara (2013), in this paper, they also investigated the self-service checkout stations in Turkey in terms of service quality and its impact on customers satisfaction/loyalty. In this research, the younger customers who participated in the survey of researchers made for data collection, are more than older customers because researchers made survey to the participants who completed their shopping by using the self-checkout stations(SCS). Thus, as it is understood from this literature that younger customers generally preferred to use (Orel and Kara, 2013).

At the light of these information, age or generations have a great impact on self-service technology in the world and especially in Turkey so the tendency of different age groups or generations to the enhanced vending machine for

medications dissipation absolutely shows variation. Hence, the second hypothesis of the research is;

H2. *Younger people or patients have more tendencies to prefer to use enhanced vending machines so as to take their medications or needs than older people or patients.*

2.4.3 Education Level and Economic Condition

Educational attainment differences often affect the economic condition of the people, and the economic condition sometimes affects the educational attainments. Therefore, their impacts on technology usage should be examined together. However, in spite of the fact that technology is a vital part of people's lives independent of socioeconomic differences in societies, high educational level and good economic condition of people help them to understand and embrace the new developments and situations quicker if they are logical and rational things. That is to say, as it is explained before, the attitudes people in different societies towards ambiguity and unfamiliarity show variation (Hofstede and Minkov, 2010; Hofstede-Insights). However, people who have a high educational background make mostly their decision by taking power from their minds, and their instinct cannot stand out to direct their decisions. Moreover, these people are generally not influenced by other people easily because they want to evaluate the positive and negative sides of the situation before making a last decision. Therefore, if the advantages of the change are evident, and this change can clarify all suspended and dubious sides, people who have a high educational background tend to prefer this innovation. Otherwise, high educated people tend to hesitate to prefer innovation if it has some suspended and dubious sides.

Toni Hilton et al. (2013) made a research titled "Adopting self-service technology to do more with less". In this research, they made qualitative interviews with different 24 people about self-service technologies, and they categorized them in their socioeconomic group and age. People in the high socioeconomic group mostly had seen the SST as an efficient and time-saving way even if their reliability-based problem sometimes created unpleasant situations (Hilton et al., 2013). Moreover, Weijters et al. (2007) also used the education factor as 'moderating effects' in their research. It is because, they said that highly educated people feel more pressure so as to arrange their activities effectively so they give more importance to the time

allocation, and this situation pushes them to use SST in order not to lose time for secondary things (Weijters et al. 2007). Additionally, as it is highlighted above, according to them, highly educated people are exposed to much more technology than other people because nowadays, high educated people usually use technology in their workplaces. Besides, they tend to earn more money owing to the high educational background, so they can easily buy various technological devices, and this situation makes them more exposed and familiar with the new technologies (Weijters et al. 2007). Lastly, in the paper titled “Consumers’ Behavioral Intentions Toward Self-Service Technology in the Emerging Markets”, Gurjeet Kaur and Sangeeta Gupta (2013) examined the behavioural intentions of people in India 'to use' or 'not to use' the Automated Teller Machines. It is because, as a cultural, using ATM is not very popular in India because of some technology-related mistrusts. To collect the data, they prepared a survey, and they evaluated the survey results in terms of some models like “Technology Readiness Index”, “Technology Acceptance Model” and “Behavioral Intentions”, and according to their analysis of the survey, it was revealed that people from different education background completely differ in the perspective of technology usage and attitudes to technology.

When all of the information and literatures are considered that since Turkey is also an emerging country and is consisted of different people from the different education background and economic condition, as it is evident that people' tendency to enhanced vending machines for medications dissipation substantially will differ, and in the light of all of these information, the third hypothesis of the research is;

H3. *People who have the high educational background and good economic condition have more tendencies to prefer to use enhanced vending machines for their medications or needs.*

2.4.4 Experience of Self-Service Technology(SST)

Experience is one of the most important gains for technological competence. Therefore, another significant determinant for examining the tendency to the new SST technology of society is their familiarity and experience degree of the other Self-Service Technologies(SST) in their daily lives. This is because, having a comprehensive knowledge of some SSTs helps people to evaluate and embrace the new SSTs because as it is mentioned, unfamiliarity and ambiguity of the innovations affect people to a great extent, but in case these innovations are not totally unfamiliar

for people, people can insert them in their life smoothly and easily. According to the article titled “Why consumers use and do not use technology-enabled services”, researchers, Rhett H. Walker and Lester W. Johnson (2006) examined the reasons of why people use or not use the SSTs, and they asserted that willingness of people to use SST derives from the prior experience and their general attitudes towards technology. They deduced in the analysis part of their research that using SST increases the individual sense of capacity or capability, so people are willing to use new SSTs owing to prior experiences (Walker and Johnson, 2006).

Moreover, the satisfaction level rooted from the past experiences of the people also affects the usage of new SST. The reason behind this, if people are satisfied with their last usage of SST, they tend to be more enthusiastic for the next usage or vice versa. This situation can be exemplified and supported by some articles. Amanda Beatson et al (2010) investigated the relation between self-service technology(SST) and consumer satisfaction and consumer commitment in the paper titled “Determining Consumer Satisfaction and Commitment Through Self-Service Technology and Personal Service Usage”. They indicated that benefits like time-saving, the convenience of SSTs increase the satisfaction of the user so people prefer to eagerly use SSTs next time (Beatson et al. 2010). Besides, using various types of SSTs encourage people for the introduction of self-service technology which is new (Dean, 2008).

On the basis of literatures and the observations of the researcher, it is easily understandable that the past experiences of people and their positive and negative satisfactions derived from past experiences with SSTs definely affect the attitudes of people in the next encounter with SSTs. Thus, the tendency of Turkish people to the enhanced vending machines for medications dissipation should be related with their past experience with SSTs. Briefly, within this scope, the fourth hypothesis of this research is;

H4. *Experienced and satisfied people from their previous usages of SSTs have tendencies to prefer to use the enhanced vending machine so as to fulfill their medications and other* needs.

2.4.5 Pharmacists

One of the most vital determinant to examine the tendency of Turkish society to the enhanced vending machine for medications dissipation, and also as it is highly

emphasized before in this research, one of the significant stakeholder of the implementation and integration of the enhanced vending machine is the pharmacists who have especially their own pharmacies. This is because, as it is planned, in the near future, pharmacists will be the most affected stakeholder with the result of the introduction of this enhanced vending machine, because whereas in the progress of time, this vending machine will decrease the number of pharmacists who will graduate, it will also increase the profit of the pharmacists. It is because, the main effect of the self-service technologies(SSTs) decreases the human factors like employee and costs which are caused by human factors (Bao and Mpambara, 2011; Orel and Kara, 2013; Meuter et al. 2000; Hilton et al. 2013; Bashir and Albarbarawi, 2011). Therefore, the ideas and opinions of the existing pharmacists will differ about this innovation which will impact the profession intimately because while some pharmacists can see this enhanced vending machine as a great threat against the profession of pharmaceutics, others can see the enhanced vending machine as an opportunity for the sustainability of the profession of pharmaceutics. As it is also mentioned, all innovations come with their positives and negatives sides but at first, some negative sides and deficiencies can be ignored, if the positive sides and the potential it provides promise hope for the future.

Moreover, some pharmacists who think the enhanced vending machines for medications dissipation will be beneficial for pharmacists and patients can also think that mechanization will damage the sincerity between pharmacists and patients. By considering all of these information, the fifth hypothesis of this research is;

H5a. *Pharmacists have tendencies to prefer to implement and integrate the enhanced vending machine for medications dissipation to pharmacies for the sustainability and sake of the profession of pharmaceutics.*

H5b. *Pharmacists who especially have their own pharmacy have tendencies to implement and integrate the enhanced vending machine for medications dissipation into their own pharmacies.*

While the hypotheses will be investigated, the legislations and regulations of the Turkish Health System will also be analysed in whether they are suitable for the implementation and integration of the enhanced vending machine to pharmacies in Turkey.

3.0 METHODOLOGY OF RESEARCH

3.1 Research Objectives

As it is stated in the previous chapter that the main question of this research is related to the convenience and feasibility of the enhanced vending machine for the medications dissipation in Turkey, and the possibility of the integration of it. To answer the research question, it should be answered the subquestions which directly interact with the main question. These subquestions can be evaluated as the main objectives of this research. As it is known that so as to reach the main target, the objectives should firstly be accomplished. For instance, every project arises from the unity of the subparts of the projects. That is to say, if the main aim is the manufacturing of the new car, it should be first accomplished the project's subelements such as the designing of the car, producing the prototype of the car, building the factory of car and so forth. Therefore, the main and first objective of this research is to measure the tendency of Turkish society towards the enhanced vending machine for medications dissipation. It is because, as it is explained users and pharmacists are the main stakeholders of this self-service technology so briefly the enhanced vending machine addresses the nearly whole Turkish society. Thus, the convenience and feasibility of this self-service technology absolutely depend on the tendency and willingness of the Turkish society towards it. In fact, the main determinants which affect the tendency of Turkish society and the hypotheses are determined in the previous chapter according to this objective.

The second objective of this research is to search and to investigate the Turkish health system, the legislation and regulations whether they are suitable or compatible with the integration of the enhanced vending machine for medications dissipation or not. This is another necessary part of the research because the regulations and the health system of Turkey have a really big impact on this implementation. As it is explained before, in Turkey, the any of medications such as antibiotics, painkillers and so forth which are registered to the ministry of health of Turkey cannot be sold in any places like supermarkets. However, there are some medicines like creams or vitamins which are registered to the ministry of commerce of Turkey can be sold some stores as an addition to pharmacies. This regulation may be the main factor against the enhanced vending machine for medications dissipation

because according to the Turkish pharmacists' association, drugs should be sold under pharmacist supervision(teb.org, 2017). Although the enhanced vending machine is directly connected to the pharmacy and it looks like nothing against the legislation, the situation will be handled. Briefly, the extent of the regulations and legislations will be searched and determined for the second objective of the research.

The last objective is that due to its part of the self-service technology, it may create some safety or reliability problems, any mistake which is made by the machine can damage directly to the user or patient health. This is a really significant factor of implementing the enhanced vending machine for medications dissipation in Turkey. Thus, this situation will be investigated by searching the other self-service devices for the third and last objective of the research.

3.2 Research Strategy

In general, for analysing and examining this research, a positivistic philosophy will be preferred so a deductive approach will be applied. This approach can be used so as to examine and investigate some topics by using and evaluating the data which are collected by the researcher(s) or secondary sources (Saunders et al. 2009). In this research, the online survey will be used for the main collecting data method because as it is explained in the research objectives part, the main objective of this research is to measure the tendency of Turkish society towards self-service technology especially in medication dissipation by means of the enhanced vending machine which is integrated to the facade of pharmacies like ATMs in banks. Moreover, the survey method is the best and easiest way to collect data from society and to understand the relationships between variables or determinants and to test the hypotheses of this research (Saunders et al. 2009; Bao and Mpambara, 2011). For the other objectives, mostly literature reviews and the secondary sources will be investigated in detail. To sum up, the results and data collected from the survey and information obtained from literatures and observation will help to answer the overall research question at all, and the research will conclude with the answer of the research question by evaluating the all information derived from the objectives.

3.3 Data Collection

The data collection is a vital part of the research so as to reach an accurate outcome, and the inappropriate data collection method can mislead the researcher

on a vast scale. As it is declared above, by using the survey, the appropriate data are aimed to collect. However, by using the survey, to reach the data, there are mainly three tools which are observations, questionnaires and interviews (Ekşi, 2003). In this research, the observational tool cannot be used, because usage of self-service technology is a highly wide concept so people cannot be observed and evaluated by the observational way due to time, cost constraint and efficiency issues. On the other hand, the interview tool cannot also been used as a tool of survey method because having an interview takes also a lot of time to collect responses of the people one by one but the high number of responses is necessary to measure the tendency of society. Therefore, interview tools cannot be performed due to time constraint. Moreover, having an interview is not considered as one of the safe tools for interviewer and interviewees since the pandemia is still an active case now. Thus, for the survey method, the questionnaire tool is found appropriate to collect necessary data from society owing to the many advantages of it.

3.3.1 Sample Collection and Target Selection

Applying a survey to the whole population is the nearly impossible procedure as it takes a substantial amount of time and requires a lot of money to reach every citizen in society. Therefore, the sampling method which is always used to represent the whole will be used to collect the required data (Saunders et al. 2009). Meanwhile, by the government, the sampling method is also used to check the prescriptions of pharmacies instead of checking all prescriptions whether pharmacies procure the medications according to the legislations so according to sampling results, either government makes payment or cut into it. Briefly, representative sampling is approved to measure the tendency of the society towards self-service technology especially in medications dissipation via enhanced vending machine. Therefore, the target selection will be made with respect to the characteristics of sample collection (Bao and Mpambara, 2011; Kahle and Malhotra, 1994).

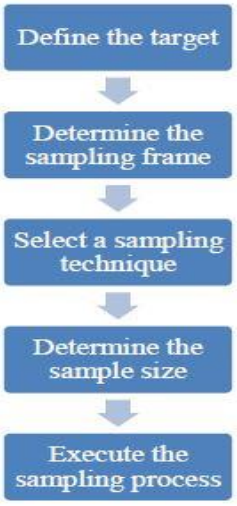

Figure 3.1: Technique of Sample Collection
Source: (Bao and Mpambara, 2011)

Choosing and determining a suitable sample is also very significant because this sample should fairly represent the whole society. Therefore, in this context, it should be determined the target population which can reflect the tendency and willingness of the society to the enhanced vending machine for the survey. Moreover, this population should have enough and various types of people from different cities of Turkey so as to show the more general opinion of Turkish society. Thus, Ankara which is the capital city of Turkey will be used as a target population because there are nearly 5.5 million people who come from different cities live in Ankara(tüik, 2017), and in Turkey, after Istanbul, Ankara is the second-highest population city. Ankara is chosen as a target population instead of Istanbul because Istanbul is the finance center of Turkey and most people live there are highly educated so this situation may cause misleading data for the survey. However, the distribution of the population in Ankara is more stable than Istanbul. For this survey, there will be no sample frame due to a lack of time. Furthermore, as a sampling technique, the researcher does unfortunately not have an opportunity and ability to apply probability sampling, and cannot pick the participants as a totally random manner due to the high population and its difficulty. Hence, for the sampling technique, non-probability sampling will be mainly used by mostly preferring snowball, self-selection or/and convenience sampling. Besides, as sampling size, as it is known, when the sample size increase, the reliability and accuracy also increase. That is, the more participants mean the more reliable results. However, there is a conventional and commonly used formula which is “N > 50 + 8m (where m = the number of independent variables)” (Bao and Mpambara, 2011). According to this formula, there should be minimum 90 respondents for the survey of the research since there are 5 different determinants and hypotheses in order to measure the tendency of the society towards the enhanced vending machine for medication dissipation.

3.4 Questionnaire Design and The Pilot Test

The main specification of this survey is to be an online survey that can be distributed as a "link". That is, thanks to the internet, mobile phones and online survey technology, the survey will reach a lot of participants with the force of social media platforms like Linkin, Whatsapp as well. Additionally, this online survey is fully anonymous and will not include personal questions like name, postcode, address,

telephone number. Participants will only answer the questions related to the research. Personal information cannot be known or detected by the researcher and anyone.

As it is known that the questions in the survey should be clear and objective-oriented to be able to help the researcher to answer the overall research question, so questions asked should be wisely planned (Brace, 2008; Bao and Mpambara, 2011). Thus, in fact, while designing the questions in the survey, it was showed a maximum effort to able to collect necessary data from participants. In general, the survey consists of the close-ended questions so that participants have to choose their answers from pre-arranged options by the researcher. Moreover, in the survey there are 40 questions that are formed from mainly three types of questions that are “Yes or No” questions, “How often” questions and “To what extent” questions, and some questions are only targeted to participants who are the pharmacist. Owing to online survey technology, in the survey, while some questions are hidden from some participants, some questions can appear according to previous answers participants choose. For instance, in the survey, there is a question which is “Are you a pharmacist?”, and if participants say “Yes” for this question, hidden questions appear like “Are you a pharmacist who has own pharmacy?”, or there is another question which is “Have you ever used the Automated Teller Machine(ATM)?”, and if participants say “Yes” for this question, another type of hidden questions appear like “In normal circumstances, How often do you use the Automated Teller Machine(ATM)?”. In addition to these, in the survey, there are four different stages that the first stage is aimed to collect the demographic data of the participants, and the second stage is aimed to collect the data about the existing feelings and thoughts of participants towards the self-service technology, and the third stage is focused to collect the data about the existing feelings and thoughts of participants towards the pharmacies and their working mechanisms, and the fourth stage is focused to collect the data about the tendency of participants towards the SSTs, pharmacies and especially the Enhanced Vending Machine for medications dissipation. The last stage of the survey consists of only “To what extent” questions, so the participants are expected to choose the closest option to them from the scale which involves five options from “None” to “Very Much”.

The language of the survey is to be Turkish because this survey addresses to the whole society, and the English level of Turkish society might not be enough to

completely understand the all questions. Therefore, so as to collect the accurate data from the survey, the questions should be Turkish so that participants can properly reflect their opinions to the survey. The survey was designed and prepared as both Turkish and English by the researcher, and as it is known that the survey consists of the close-ended questions, the translation of the researcher is sufficient, and a certified translator is not required. It is because, the native language of the researcher is Turkish since the researcher has full knowledge of Turkish society and high knowledge of English language, the survey is capable of fielding in the culture and language required (Harkness, 2003).

After designing and preparing the survey, the survey was sent to the 10 people who were different ages and profession as a pilot test. Thanks to the pilot test, some unclear parts which can mislead the real participants were designated with the help of the comments of the people who were in the pilot group, and then corrected. Thus, on a large scale, some unclear items and some language mistakes were removed.

3.5 Validity, Reliability and Generalizability

Validity, Reliability and Generalizability are the notions that support and complete each other while conducting the research. That is, they are mainly related to the accuracy and consistency of measurements and data (Saunders et al., 2009; Bryman, 2008; (Bao and Mpambara, 2011). For this research, the questions in the survey are designed to support and back up the other questions. By this means, the questions can measure the same information from different perspectives, and this situation increases the ability of the survey to collect data from participants so the internal accuracy of the survey is provided. Thus, in general, the validity of this research is high owing to especially proper survey questions. In addition to this, this research is substantially reliable because the questions in the survey are the close-ended, and the internal consistency of the survey was highly considered while designing the survey. Moreover, since the regulations and legislations of the Turkish health system are mostly fixed, this survey and research tend to give similar outcomes every time. However, due to fact that the application of the survey of research is not probability sampling, the reliability of research cannot be claimed as 100% reliable. In a generalizability perspective, as it is known, the main aim of the

research examines the feasibility and appropriateness of the enhanced vending machine for medications dissipation to Turkey, so the research should be inclusive for the Turkish society in any case. Moreover, in fact, the target population is chosen as Ankara according to this mentality. Thus, generalizability is one of the main outputs of this research.

4.0 ANALYSIS AND RESULTS

In this part, the data collected from the survey is presented, and both analyses and interpretation of data from the survey and information collected from the literature reviews are made in accordance with the objectives and the hypotheses of the research.

4.1 Analysis of Survey

To begin with, as it is explained in the methodology chapter, the survey conducted is an online survey, and as sampling technique, non-probability sampling was preferred and additionally, snowball, self-selection or/and convenience distribution were found appropriate. Of course, the researcher is not naturally capable of controlling the spread of the online survey. As a consequence of this, by using the mentioned distribution techniques, the survey was spread and reached more than 1000 people. According to data obtained from Qualtrics which is software so as to collect data and conduct a survey, 927 people participated in the survey of this research. Nevertheless, 710 of them fully completed the survey, so they are counted as real participants and their answers are used for the analysis.

Figure 4.1: Total Participants of Survey

The general profile of the participants is not distributed smoothly and equally due to its being an online survey. However, in fact, equal and smooth distribution of participants is not necessary and required since their answers and their tendencies can be evaluated in itself. Overall, while 476 of the participant is female, only 234 of the participants is male, and 68 participants which correspond to nearly 10% of the total participants are also the pharmacists. Other distributions can be seen in the table below.

	Q1: What is your gender?				
	Total	Female	Male	Other	Don't want to answer
Total Count	710	476	234	0	0

	Q2: Which age group you are in?				
	Total	18-25	26-40	41-55	56+	Don't want to answer
Total Count	710	157	96	265	192	0

	Q3: What is the last degree you graduated from?					
	Total	High School	Bachelor	Master	PhD	Don't want to answer
Total Count	710	98	395	137	78	2

	Q4: What is your monthly net income? (If you are a student, please choose the first interval)					
	Total	0-2499TL	2500-4999TL	5000-7499TL	7500+	Don't want to answer
Total Count	710	126	152	175	231	26

	Q5: Are you a Pharmacist?		
	Total	Yes	No
Total Count	710	68	642

Table 4.1: The Demographic Distributions of The Participants of The Survey

One of the main motives and aims of this research is to make people or patients reach their medications as easy and fast as possible with the help of technology especially self-service technology. According to data from the survey, the nearly all of the participants of the survey have gone to pharmacies for any reason, and most of them have gone to the pharmacies to take prescribed medications.

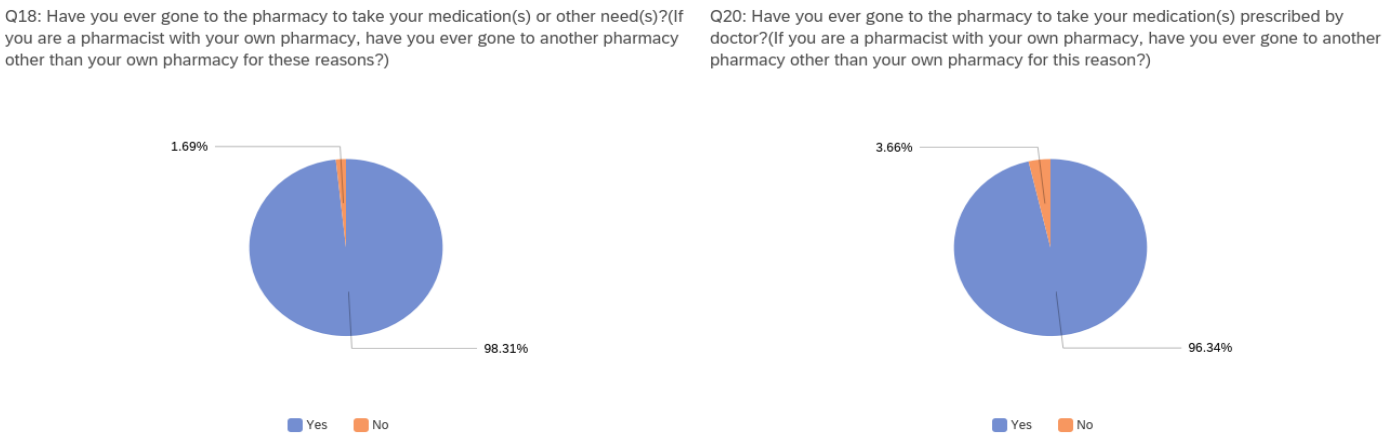

Figure 4.2: The Percentages of Participants Gone To Pharmacy Before For Different Purposes

In addition to these distributions, as it is explained before, people or patients cannot easily find the pharmacies at night and on holidays so they cannot reach their medications. Therefore, they have to search the pharmacies on duty to get their medications or needs. In parallel with these information, some data from the survey can be seen table below.

		Q23: Have you ever had to seek a pharmacy on duty at night or on holidays?		
		Total	Yes	No
Q18: Have you ever gone to the pharmacy to take your medication(s) or other need(s)? (If you are a pharmacist with your own pharmacy, have you ever gone to another pharmacy other than your own pharmacy for this reason?)	Total Count	710	602	108
	Yes	698	598	100
	No	12	4	8
	Yes	98,3%	99,3%	92,6%
	No	1,7%	0,7%	7,4%

Table 4.2: The Distributions of Participants Had To Seek Pharmacy at Night or on Holidays

		Q23: Have you ever had to seek a pharmacy on duty at night or on holidays?		
		Total	Yes	No
Q24: Have you ever felt desperate because you could not take prescribed or non-prescribed medications at night and on holidays?	Total Count	710	602	108
	Yes	337	319	18
	No	373	283	90
	Yes	47,5%	53,0%	16,7%
	No	52,5%	47,0%	83,3%

Table 4.3: The Distributions of Participants Felt Desperate at Night or on Holidays

As it can be seen in Table 4.2, 698 participants out of 710 participants who correspond to 98.3% of the whole have gone to the pharmacies to take their medications and other needs at least one time in their lifetime. In the same table, as it can be seen that 602 participants have had to seek a pharmacy on duty at night or on holidays, and this number corresponds to 85% of the whole. That is, it is evident fact that most of the participants who have gone to the pharmacy have had to seek a pharmacy on duty at least one time in their lifetime. Moreover, 4 participants out of 12 participants who have not gone to the pharmacy in their lifetime yet also have had to seek a pharmacy on duty at night and on holidays. In addition to Table 4.2, Table 4.3 includes the different comparison which is related to reaching the medications at night and on holidays. According to Table 4.3, 337 participants out of 710 participants who correspond to 47.5% of the whole have felt desperate because they could not take prescribed or non-prescribed medications at night and on holidays. Besides, even some participants who have not had to seek a pharmacy on duty have felt desperate due to the same reasons. Briefly, nearly half of the participants have been psychologically affected negatively by this situation. To sum up, it is proven with the data from the survey that one of the main motives of the integration of the enhanced

vending machine for medications dissipation is highly realistic and true. Additionally, it is also revealed that self-service technology can help people and patients for this situation since they can work 24/7.

		Q21: When you go to the pharmacy, do you wait in line in the pharmacy to take your prescribed or non-prescribed medications? > Q22: On average, How much time do you spend in the pharmacy until taking your prescribed or non-prescribed medications?								
			Yes				No			
		Total	1-2 Minute(s)	3-5 Minutes	5-10 Minutes	More than 10 Minutes	1-2 Minute(s)	3-5 Minutes	5-10 Minutes	More than 10 Minutes
Q19: In normal circumstances, How often do you go to the pharmacy for any reason? (If you are a pharmacist with your own pharmacy, how often do you go to another pharmacy except your own pharmacy?)	Total Count	698	73	297	159	28	48	71	22	0
	Once a Week	17	3	9	4	0	0	1	0	0
	More than Once a Week	7	0	3	4	0	0	0	0	0
	Once a Month	205	25	101	33	11	8	21	6	0
	More than Once a Month	88	11	38	30	2	1	3	3	0
	Once in 2-3 Months	247	25	98	59	8	21	27	9	0
	1-2 Times a Year	134	9	48	29	7	18	19	4	0
	Once a Week	2,4%	4,1%	3,0%	2,5%	0,0%	0,0%	1,4%	0,0%	0,0%
	More than Once a Week	1,0%	0,0%	1,0%	2,5%	0,0%	0,0%	0,0%	0,0%	0,0%
	Once a Month	29,4%	34,2%	34,0%	20,8%	39,3%	16,7%	29,6%	27,3%	0,0%
	More than Once a Month	12,6%	15,1%	12,8%	18,9%	7,1%	2,1%	4,2%	13,6%	0,0%
	Once in 2-3 Months	35,4%	34,2%	33,0%	37,1%	28,6%	43,8%	38,0%	40,9%	0,0%
	1-2 Times a Year	19,2%	12,3%	16,2%	18,2%	25,0%	37,5%	26,8%	18,2%	0,0%

Table 4.4: The Relation Between the Frequency of Going Pharmacies of People and Their Time Spending in There

One of the other main motives of the integration of the self-service technology for the medications dissipation is to shorten the process in which patients reach the medications. It is because, as it is mentioned the main aim of the self-service technology is to reduce the time spend by the customer, and reduce the cost for the benefit of the owner of the business. In Table 4.4, it is mainly shown the relation between the frequency of going pharmacies of people or patients and their time spending in there. According to Table 4.4, as it can be seen that 698 out of 710 participants have gone to the pharmacy before, and 557 of 698 participants who

correspond to 80% of whole participants think that they wait in line to take their medications when they go to the pharmacy. Moreover, according to Table 4.4, people or patients spend, on average, 3-10 minutes in the pharmacies until they take their medications, additionally, on average, people prefer to go to pharmacy 4-12 times in one year. When it is calculated, on average, it can be found that people spend more than 1 hour in a year so as to obtain their medications or needs from the pharmacies. As it is evident fact that no one enjoys waiting in line, so in fact, 80% of participants think they lose time by waiting for the line in pharmacies. The 20% of the whole participants who think they do not wait in the pharmacy, go to the pharmacies infrequently as less than average. Besides, although some participants think they do not wait in the pharmacy, they wait 3-10 minutes in pharmacy at real. Thus, it is revealed that more than 80% percent of participants who have gone to the pharmacy at least one time in their lifetime lose approximately 3-10 minutes in line in the pharmacy until they take their medications every time.

Lastly, as it is also mentioned that, in Turkey, pharmacists are seen as a trusting and respected medical advisor. Therefore, it should be considered that even if people think they lose time in the pharmacy until they take their medications, they may insist on taking their medications from pharmacies. In fact, Table 4.5 below proves this information that the trust level of the participants to pharmacists is really high because whereas nearly 70% of participants stand in the positive sides (which are “Much” and “Very Much”) of the scale, and the rest of the most participants adopt a "Neutral" attitude to pharmacists. Hence, this exhibits the importance of pharmacists for Turkish society.

		Q18: Have you ever gone to the pharmacy to take your medication(s) or other need(s)? (If you are a pharmacist with your own pharmacy, have you ever gone to another pharmacy other than your own pharmacy for this reason?)		
		Total	Yes	No
Q31: To what extent do you trust pharmacies/ pharmacists?	**Total Count**	710	698	12
	None	4	4	0
	Little	16	16	0
	Neutral	213	210	3
	Much	338	335	3
	Very Much	139	133	6
	None	0,6%	0,6%	0,0%

		Q34a: To what extent do you believe that the Self-Service Enhanced Vending Machine for Medications Dissipation will serve faster than pharmacies?					
		Total	None	Little	Medium	Much	Very Much
Q39: To what extent do you believe the Self-Service Enhanced Vending Machine for Medications Dissipation can reduce the number of pharmacies and	**Total Count**	710	37	77	237	267	92
	None	42	13	10	11	2	6
	Little	140	8	27	44	47	14
	Neutral	248	4	18	106	96	24
	Much	210	6	17	63	96	28
	Very Much	70	6	5	13	26	20
	None	5,9%	35,1%	13,0%	4,6%	0,7%	6,5%

	Little	2,3%	2,3%	0,0%
	Neutral	30,0%	30,1%	25,0%
	Much	47,6%	48,0%	25,0%
	Very Much	19,6%	19,1%	50,0%

Table 4.5: Trust Level of Participants to Pharmacists

pharmacists in a near future?	Little	19,7%	21,6%	35,1%	18,6%	17,6%	15,2%
	Neutral	34,9%	10,8%	23,4%	44,7%	36,0%	26,1%
	Much	29,6%	16,2%	22,1%	26,6%	36,0%	30,4%
	Very Much	9,9%	16,2%	6,5%	5,5%	9,7%	21,7%

Table 4.6: Belief of Participants about the Future of Pharmacies

However, Table 4.6 exhibits more significant facts that while only 114 (77+37) out of 710 participants who correspond to 16% of whole participants think that pharmacies can serve faster than the Enhanced Vending Machine for Medications Dissipation, more than half of the participants (who chose the “Much” and “Very Much” options in the scale) think that self-service substitute can serve faster than pharmacies. That is, although people really trust to the pharmacies, they also present that the Enhanced Vending Machine for Medications Dissipation is an option time-saving. Moreover, another significant fact is that, according to Table 4.6, whereas nearly 40%(29,6%+9,9%) of participants who join this survey state that the Enhanced Vending Machine for Medications Dissipation can reduce the number of pharmacies and pharmacists in near future, nearly 26% (5,9%+19,7%) participants indicate the opposite. Hereby, thanks to data from the survey, it is also proven that, with the introduction and integration of the Enhanced Vending Machine for Medications Dissipation, the number of pharmacies can reduce, and so the government cannot be required to spend redundant money for the faculty of pharmaceutical sciences. Hence, the quotas of the faculty of pharmaceutical sciences may decrease and the number of new graduates may correspondingly diminish, and the sector relieves. That is, it is revealed that one of another motive or problem which pushes the researcher makes this research can be solved with the self-service technology, namely the Enhanced Vending Machine for Medications Dissipation.

4.1.1 Hypotheses Analysis

As it is mentioned, to investigate the tendency of Turkish society, it was determined some determinants which approach the situation from different angles, and hypotheses were developed as depending on these determinants. To analyze the hypotheses, using the Qualtrics statistic tools, the Chi-squared test was applied and p-values were generated according to a 90% confidence level to determine whether the relationship between determinants and tendency to Enhanced Vending Machine for Medications Dissipation is significant or not.

4.1.1.1 Gender

According to data from the survey, it is revealed that a gender difference is really a significant determinant in the sense of both usage of the self-service technology and the willingness to the enhanced vending machine for medications dissipation. First of all, in the survey, participants stated their genders either female or male. Therefore, other options are not evaluated for this research.

In Figure 4.3, it is shown the self-service technology usage of Turkish society in terms of mechanical/tangible services which are ATMs, Self-Service Checkout Stations and Vending Machines. According to Figure 4.3, while 99.1% of male participants have used the ATMs, 98.5% of female participants have used the ATMs at least one time in their lives. That is, ATMs are highly familiar with almost all participants (98.7%). Likewise, vending machines are also really familiar with Turkish society according to the data from the survey. It is because, 86.1% of all participants have used the vending machines at least one time. However, self-checkout stations in grocery stores are not very familiar with self-service technology than others.

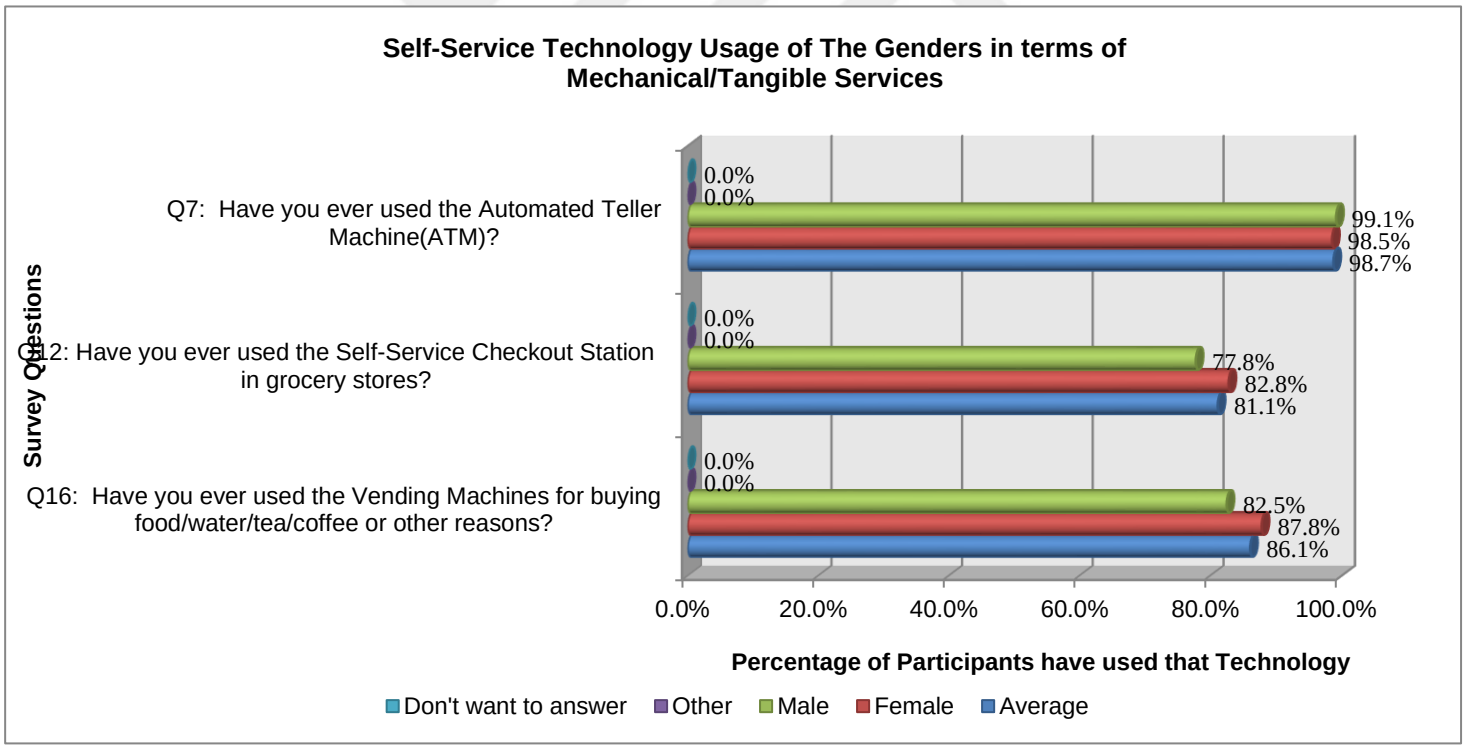

Figure 4.3: Self-Service Technology Usage of The Genders in terms of Mechanical/Tangible Services

Moreover, according to data from the survey (Figure 4.3, Figure 8.1, Table 8.1), women are generally more willing to use self-service technology than male, but as it can be seen in Figure 4.4, men prefer to use self-service technology more frequently than women especially in self-service checkout stations. Meanwhile, the

percentages in Figure 4.4 indicate the frequency of usage of self-service technologies of participants. That is, according to Figure 4.4, whereas 70.4% of male participants approximately use the ATMs minimum 30 times(2-3 times in a month * 12 months in a year) in a year, 66.1% of female participants approximately use the ATMs minimum 30 times in a year. Besides, again to data from the survey, men stated they are more relax while using SSTs (Table 8.2), and the reason behind this can be seen as a high frequency of men usage of SSTs.

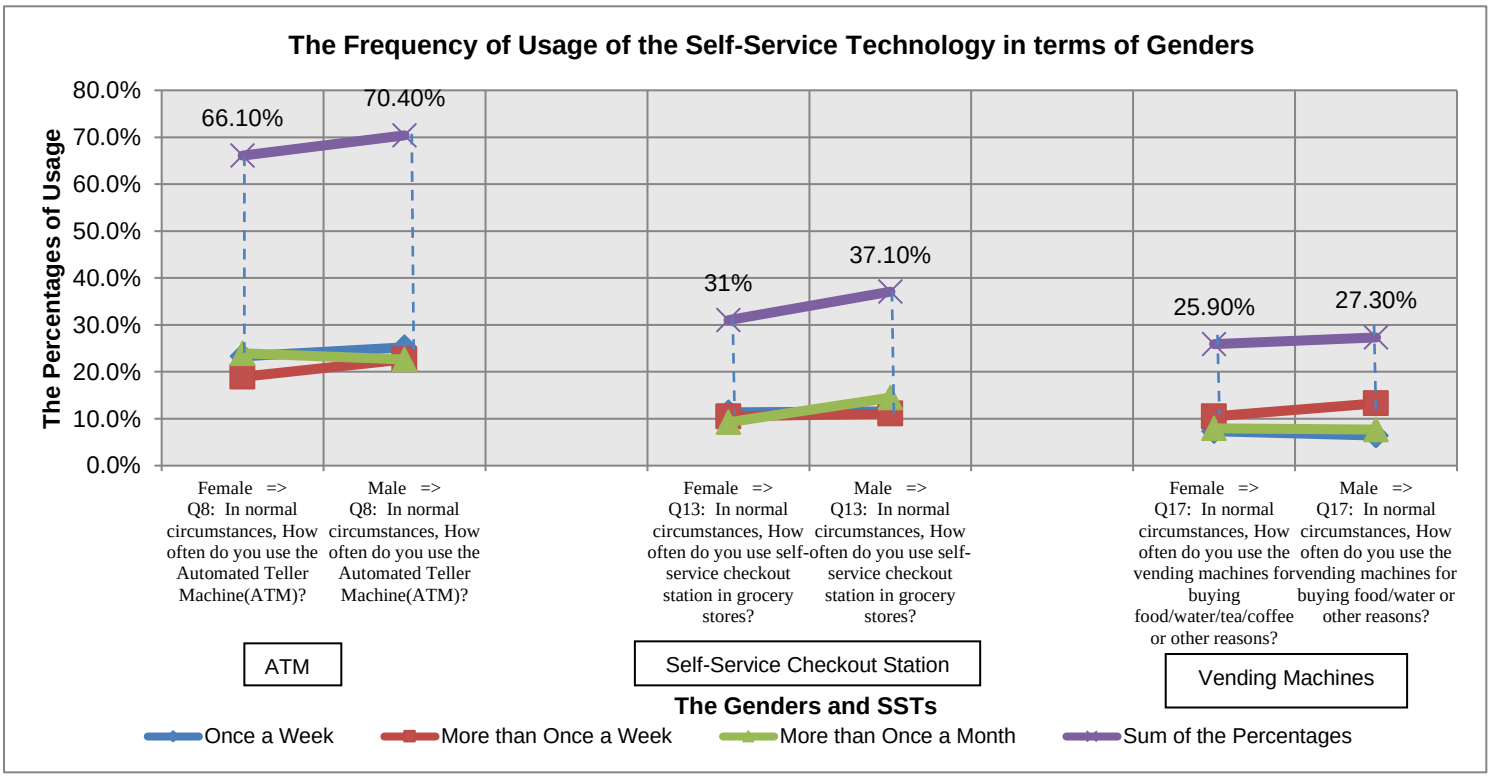

Figure 4.4: The Frequency of Usage of Self-Service Technology in terms of Genders

Thus, according to the survey, because of the fact that men look more close to SSTs, the hypothesis was expected to find correct. However, the in the light of the statistical examinations and “Overall Stat Test of Percentages”, it is revealed that the relationship between gender and tendency to Enhanced Vending Machine for medications dissipation is significant, as it can ben seen in Table 4.7, the female participants have more tendencies to trust and also use the self-service technology so as to take their medication via enhanced vending machine. To Table 4.7, the great majority of male participants(34.6%+4.7%) trust the enhanced vending machine as equal as the great majority of female participants(28.2%+8.8%), but whereas 25.2%(14.5%+10.7%) of male participants mistrust to the innovation, 21.2% of female participants mistrust the innovation. Therefore, overall, women have more

tendencies to trust the enhanced vending machine. Additionally, in Table 4.7, it can be seen that the women averages are more than men averages. The averages, medians and standard deviations are calculated by giving value to answers of the participants. (That is, None = 1, Little = 2, Neutral = 3, Much = 4 and Very Much = 5).

		Q1: What is your gender?		
		Total	Female	Male
Q33: To what extent do you trust the Self-Service Enhanced Vending Machine for Medication Dissipation to take your prescription or non-prescription medicines?	**Total Count**	710	476	234
	None	59	34	25
	Little	101	67	34
	Neutral	282	199	83
	Much	215	134	81
	Very Much	53	42	11
	None	8,3%	7,1%	10,7%
	Little	14,2%	14,1%	14,5%
	Neutral	39,7%	41,8%	35,5%
	Much	30,3%	28,2%	34,6%
	Very Much	7,5%	8,8%	4,7%
	Overall Stat Test of Percentages	**0.04556**		
	Average	3,1	3,2	3,1
	Median	3,0	3,0	3,0
	Standard Deviation	1,0	1,0	1,1

		Q1: What is your gender?		
		Total	Female	Male
Q34: If you know that it is completely secure and fast, to what extent do you want to use the Self-Service Enhanced Vending Machine for Medication Dissipation which is mostly capable of doing everything pharmacies can do?	**Total Count**	710	476	234
	None	49	26	23
	Little	68	40	28
	Neutral	168	119	49
	Much	286	195	91
	Very Much	139	96	43
	None	6,9%	5,5%	9,8%
	Little	9,6%	8,4%	12,0%
	Neutral	23,7%	25,0%	20,9%
	Much	40,3%	41,0%	38,9%
	Very Much	19,6%	20,2%	18,4%
	Overall Stat Test of Percentages	**0.09411**		
	Average	3,6	3,6	3,4
	Median	4,0	4,0	4,0
	Standard Deviation	1,1	1,1	1,2

Table 4.7: Tendency of Participants to Enhanced Vending Machine for Medications Dissipation in terms of Gender

Hence, when the data from the survey and the statistical calculations are considered, it is evident that on the contrary of the first hypothesis, although men are more hand in a glove with both mechanical and online self-service technologies, women show more tendencies and willingness to use the Enhanced Vending Machines for Medications Dissipation to take their medications or other needs.

4.1.1.2 Age or Generation Differences

As it is known that generation difference is one the main thing that affects the technology usage. Therefore, generation difference is one of the significant determinants for this research to measure the tendency of society in detail. According to data obtained from the survey, participants who are from different generations

show substantial differences in terms of their answers. As it can be seen in Figure 4.5 and Figure 8.2, to a large extent, young participants or participants from new generations are more familiar with the mechanical and online self-service technologies even if the percentage of ATM usage is almost the same.

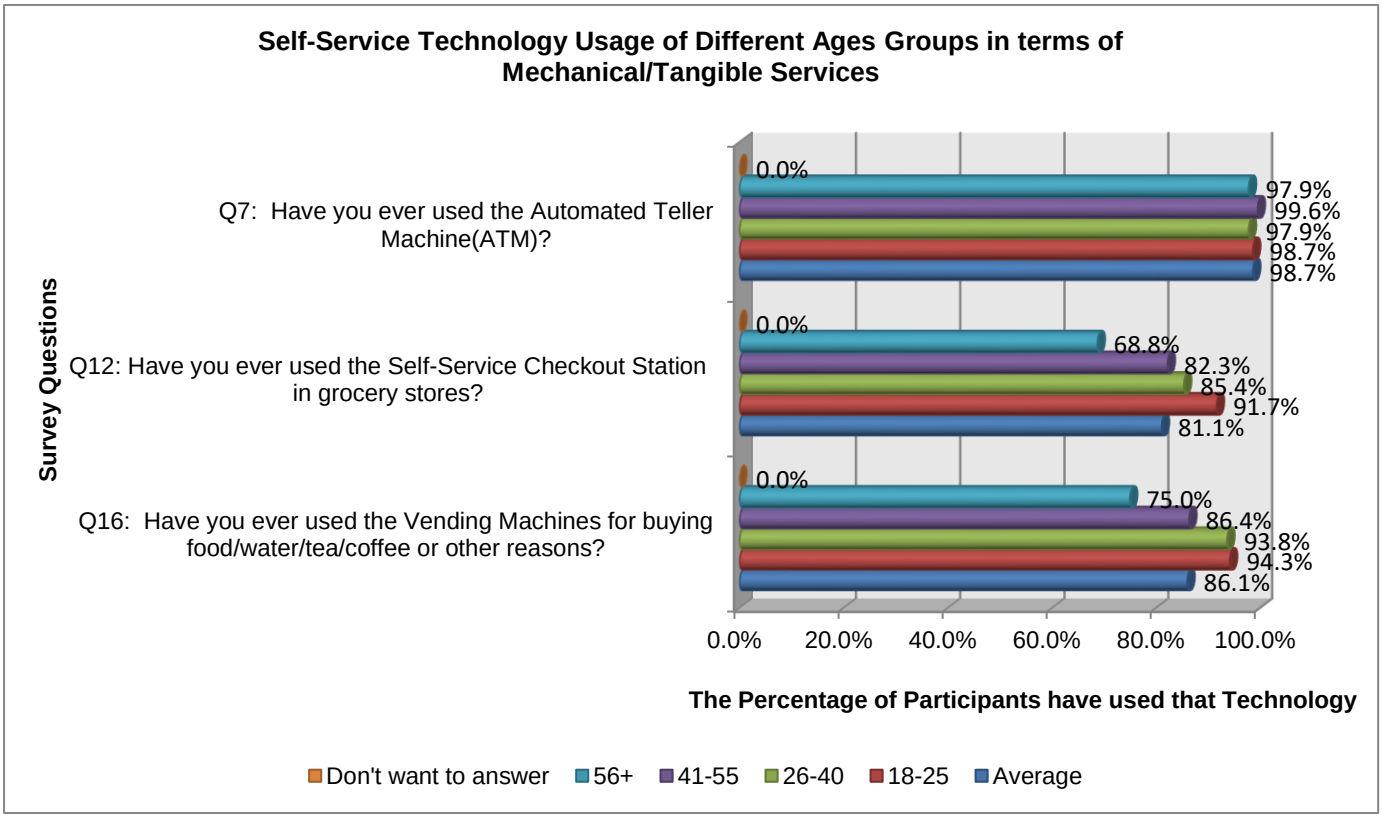

Figure 4.5: Self-Service Technology Usage of Different Age Groups in terms of Mechanical/Tangible Services

In addition to this, except for the ATM usage, generation Y and generation Z (26-40 and 18-25 respectively) prefer to use the other mechanical/tangible self-service technologies more frequently in their daily lives. It is because, ATM is an older technology than other devices so it has become a part of nearly all people's lives. However, especially self-service checkout stations in grocery stores and vending machines are highly new for the Turkish society so in fact, as it can be seen in Figure 4.6, the frequencies of the usage of the SSTs in term of different generation decrease sharply. To exemplify, while 50.2% of the generation Z participants who are 18-25 years old prefer to use the self-service checkout station minimum 30 times a year(2-3 times in a month * 12 months in a year), only 23.4% of Baby Boomers participants who are 56+ years old use the self-service checkout station minimum 30 times a year(2-3 times in a month * 12 months in a year). That is, to Figure 4.6, most of the elder participants do not want to frequently use self-service technologies. In

fact, according to the Table 8.3 and Table 8.4, it can be easily noticed that elder participants prefer to use the traditional checkout counter in the grocery stores, and they are not relaxed while using the SSTs than younger participants.

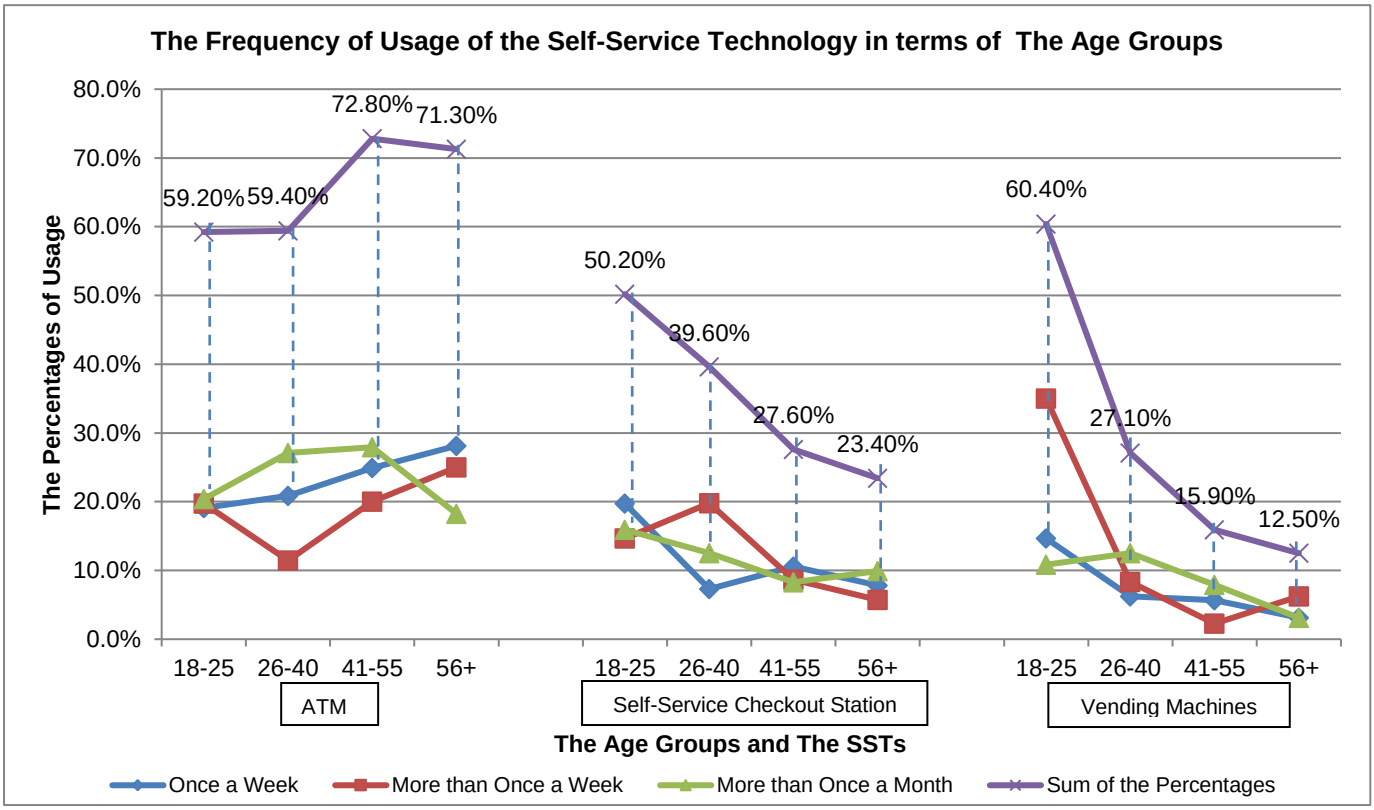

Figure 4.6: The Frequency of Usage of Self-Service Technology in terms of The Age Groups

Thus, as it is evident fact that young participants or participants from new generations prefer to use SSTs in their daily lives. In fact, while developing the hypothesis, this situation was predicted and the second hypothesis was developed in the light of this prediction. According to statistical calculations and the Chi-square test, it is revealed that there is a significant relationship between ages or different generations and the tendency to the enhanced vending machines for medications dissipation. Besides, it is founded that as age increases, the tendency to use and the trust level towards the enhanced vending machine decreases. It can be observed in Table 4.8, p-values of tests indicate the existence of significance, and the averages of trust and tendency to use to the enhanced vending machine show the general differences between them. Briefly, according to data from the survey, it is proven that young people or new generations prefer to use self-service technologies much more than elder people or old generations because they have been growing with these technologies. Hence, the second hypothesis of the research is verified that younger

people or patients have more tendencies to prefer to use Enhanced Vending Machines so as to take their prescribed and non-prescribed medications or other needs.

		Q2: Which age group you are in?				
		Total	18-25	26-40	41-55	56+
Q33: To what extent do you trust the Self-Service Enhanced Vending Machine for Medication Dissipation to take your prescription or non-prescription medicines?	Total Count	710	157	96	265	192
	None	59	3	6	22	28
	Little	101	23	14	36	28
	Neutral	282	66	39	103	74
	Much	215	49	29	83	54
	Very Much	53	16	8	21	8
	None	8,3%	1,9%	6,3%	8,3%	14,6%
	Little	14,2%	14,6%	14,6%	13,6%	14,6%
	Neutral	39,7%	42,0%	40,6%	38,9%	38,5%
	Much	30,3%	31,2%	30,2%	31,3%	28,1%
	Very Much	7,5%	10,2%	8,3%	7,9%	4,2%
	Overall Stat Test of Percentages	**0.02986**				
	Average	3,1	3,3	3,2	3,2	2,9
	Median	3,0	3,0	3,0	3,0	3,0
	Standard Deviation	1,0	0,9	1,0	1,0	1,1

		Q2: Which age group you are in?				
		Total	18-25	26-40	41-55	56+
Q34: If you know that it is completely secure and fast, to what extent do you want to use the Self-Service Enhanced Vending Machine for Medication Dissipation which is mostly capable of doing everything pharmacies can do?	Total Count	710	157	96	265	192
	None	49	1	2	20	26
	Little	68	7	9	28	24
	Neutral	168	38	19	65	46
	Much	286	58	44	108	76
	Very Much	139	53	22	44	20
	None	6,9%	0,6%	2,1%	7,5%	13,5%
	Little	9,6%	4,5%	9,4%	10,6%	12,5%
	Neutral	23,7%	24,2%	19,8%	24,5%	24,0%
	Much	40,3%	36,9%	45,8%	40,8%	39,6%
	Very Much	19,6%	33,8%	22,9%	16,6%	10,4%
	Overall Stat Test of Percentages	**< 0,00001**				
	Average	3,6	4,0	3,8	3,5	3,2
	Median	4,0	4,0	4,0	4,0	3,5
	Standard Deviation	1,1	0,9	1,0	1,1	1,2

Table 4.8: Tendency of Participants to Enhanced Vending Machine for Medications Dissipation in terms of Different Age Groups

4.1.1.3 Education Level and Economic Condition

The education level and economic condition of people definitely affect the lifestyle of the people. Therefore, technology usage or inclination to the technology is also affected by them, and at real, both of them are connected to each other in some way. Thus, these are considered as an important determinant for this research, and it is mentioned that people from different education levels and economic conditions differ greatly from the point of technology usage so the hypothesis was developed in this direction. To analyse and understand the relationship between these determinants and SST usage of participants, the tables which include both education level and economic condition of participants are constructed. However, according to data from the survey, participants do not show considerable similarity or variety in terms of their education level and economic condition. For instance, to Table 8.6, in terms of ATM, self-checkout station and vending machines

usage, there is no significant difference between both education level and economic condition of participants. They have more or less used these SSTs in a similar percentage in their life. In addition to these, according to Table 8.5 and Table 8.7, it can be seen that there is no correlation between determinant and questions. That is, whereas the participants who graduated from bachelor degrees and earn 5000-7499TL prefer to use the ATM for their transactions instead of a bank branch, participants who obtained their Ph.D. degree and earn 7500+TL also prefer to use the ATM for their transactions instead of a bank branch in equal percentages. Likewise, a similar situation is valid for the self checkout station in the grocery stores. Moreover, to Table 8.7, while using SSTs, participants who graduated from high school and earn 0-2499TL feel equally relaxed with the participants who obtained their master's degree and earn 5000-7499TL. Briefly, in terms of SST usage and tendency, most participants from different education levels and economic conditions gave similar answers to a considerable extent, so in Turkish society, it is found that there is no observable effect of education level and economic condition on SST usage.

On the other hand, for the 90% confidence level, according to statistical calculations and the Chi-square test, there is a significant relation between education level and the economic condition of the participant, and trust and tendency to use towards the enhanced vending machine for medications dissipation. That is, as it is shown in Table 4.9 and Table 4.10, although there is not a highly clear and evident correlation, there is a correlation between them. According to data from the survey, as the education level of participants increases, the trust level to enhanced vending machine increases. However, even though it is not extremely valid for all, as the net income of participants increases especially participants who graduated from bachelor's and master's degrees, the trust level to the enhanced vending machine decreases. Furthermore, even if the participants' tendency and willingness to use the enhanced vending machine so as to take their medications is high, and there is a significant relationship between tendency to use and determinant, there is not an exact correlation between them like other SSTs. Thus, overall, although there is a correlation between trust level towards this innovation and education level, on the contrary of the third hypothesis, it is revealed that the difference of education level and economic background of Turkish society do not clearly affect their tendency to prefer to use the self-service technology especially in medications dissipation via the enhanced vending machine.

		Q3: What is the last degree you graduated from? > Q4: What is your monthly net income? (If you are a student please choose the first interval)																								
			High School					Bachelor					Master					PhD					Don't want to answer				
		Total	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0 -2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer
Q33: To what extent do you trust the Self-Service Enhanced Vending Machine for Medication Dissipation to take your prescription or non-prescription medicines?	**Total Count**	710	59	22	6	3	8	48	107	124	103	13	15	20	34	66	2	2	3	11	59	3	2	0	0	0	0
	None	59	3	2	0	0	2	4	9	10	12	2	0	0	2	7	0	1	0	0	5	0	0	0	0	0	0
	Little	101	10	2	1	1	2	8	6	23	16	4	2	2	5	11	1	0	0	0	6	1	0	0	0	0	0
	Neutral	282	31	7	3	1	3	11	51	52	41	3	6	9	13	21	1	1	1	8	16	1	2	0	0	0	0
	Much	215	13	11	2	0	1	19	34	29	27	3	4	9	13	20	0	0	0	3	26	1	0	0	0	0	0
	Very Much	53	2	0	0	1	0	6	7	10	7	1	3	0	1	7	0	0	2	0	6	0	0	0	0	0	0
	None	8,3%	5,1%	9,1%	0,0%	0,0%	25,0%	8,3%	8,4%	8,1%	11,7 %	15,4%	0,0%	0,0%	5,9%	10,6 %	0,0%	50,0%	0,0%	0,0%	8,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Little	14,2%	16,9%	9,1%	16,7%	33,3 %	25,0%	16,7%	5,6%	18,5%	15,5 %	30,8%	13,3%	10,0%	14,7%	16,7 %	50,0%	0,0%	0,0%	0,0%	10,2 %	33,3%	0,0%	0,0%	0,0%	0,0%	0,0%
	Neutral	39,7%	52,5%	31,8%	50,0%	33,3 %	37,5%	22,9%	47,7%	41,9%	39,8 %	23,1%	40,0%	45,0%	38,2%	31,8 %	50,0%	50,0%	33,3 %	72,7%	27,1 %	33,3%	100,0%	0,0%	0,0%	0,0%	0,0%
	Much	30,3%	22,0%	50,0%	33,3%	0,0%	12,5%	39,6%	31,8%	23,4%	26,2 %	23,1%	26,7%	45,0%	38,2%	30,3 %	0,0%	0,0%	0,0%	27,3%	44,1 %	33,3%	0,0%	0,0%	0,0%	0,0%	0,0%
	Very Much	7,5%	3,4%	0,0%	0,0%	33,3 %	0,0%	12,5%	6,5%	8,1%	6,8%	7,7%	20,0%	0,0%	2,9%	10,6 %	0,0%	0,0%	66,7 %	0,0%	10,2 %	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Overall Stat Test of Percentages	**0.04851**																								
	Average	3,1	3,0	3,2	3,2	3,3	2,4	3,3	3,2	3,0	3,0	2,8	3,5	3,4	3,2	3,1	2,5	2,0	4,3	3,3	3,4	3,0	3,0				
	Median	3,0	3,0	3,5	3,0	3,0	2,5	4,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	2,5	2,0	5,0	3,0	4,0	3,0	3,0				
	Standard Deviation	1,0	0,9	1,0	0,8	1,5	1,1	1,2	1,0	1,0	1,1	1,2	1,0	0,7	0,9	1,1	0,7	1,4	1,2	0,5	1,1	1,0	0,0				

Table 4.9: Tendency of Participants to Enhanced Vending Machine for Medications Dissipation in terms of Education Level and Economic Conditions I

		Q3: What is the last degree you graduated from? > Q4: What is your monthly net income? (If you are a student please choose the first interval)																								
			High School					Bachelor					Master					PhD					Don't want to answer				
		Total	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500 - 4999 TL	5000-7499 TL	7500 + TL	Don't want to answer
Q34: If you know that it is completely secure and fast, to what extent do you want to use the Self-Service Enhanced Vending Machine for Medication Dissipation which is mostly capable of doing everything pharmacies can do?	**Total Count**	710	59	22	6	3	8	48	107	124	103	13	15	20	34	66	2	2	3	11	59	3	2	0	0	0	0
	None	49	2	0	0	0	2	1	9	12	14	1	0	0	0	5	0	0	0	0	3	0	0	0	0	0	0
	Little	68	1	2	1	0	1	8	3	18	9	2	0	2	3	6	0	1	0	2	8	1	0	0	0	0	0
	Neutral	168	18	5	1	0	4	11	21	32	22	4	3	6	9	14	1	0	1	1	12	2	1	0	0	0	0
	Much	286	24	12	2	2	1	15	51	50	37	5	5	9	17	25	1	1	0	7	21	0	1	0	0	0	0
	Very Much	139	14	3	2	1	0	13	23	12	21	1	7	3	5	16	0	0	2	1	15	0	0	0	0	0	0
	None	6,9%	3,4%	0,0%	0,0%	0,0%	25,0%	2,1%	8,4%	9,7%	13,6%	7,7%	0,0%	0,0%	0,0%	7,6%	0,0%	0,0%	0,0%	0,0%	5,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Little	9,6%	1,7%	9,1%	16,7%	0,0%	12,5%	16,7%	2,8%	14,5%	8,7%	15,4%	0,0%	10,0%	8,8%	9,1%	0,0%	50,0%	0,0%	18,2%	13,6%	33,3%	0,0%	0,0%	0,0%	0,0%	0,0%
	Neutral	23,7%	30,5%	22,7%	16,7%	0,0%	50,0%	22,9%	19,6%	25,8%	21,4%	30,8%	20,0%	30,0%	26,5%	21,2%	50,0%	0,0%	33,3%	9,1%	20,3%	66,7%	50,0%	0,0%	0,0%	0,0%	0,0%
	Much	40,3%	40,7%	54,5%	33,3%	66,7%	12,5%	31,3%	47,7%	40,3%	35,9%	38,5%	33,3%	45,0%	50,0%	37,9%	50,0%	50,0%	0,0%	63,6%	35,6%	0,0%	50,0%	0,0%	0,0%	0,0%	0,0%
	Very Much	19,6%	23,7%	13,6%	33,3%	33,3%	0,0%	27,1%	21,5%	9,7%	20,4%	7,7%	46,7%	15,0%	14,7%	24,2%	0,0%	0,0%	66,7%	9,1%	25,4%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Overall Stat Test of Percentages	**0.0811585436235477**																								
	Average	3,6	3,8	3,7	3,8	4,3	2,5	3,6	3,7	3,3	3,4	3,2	4,3	3,7	3,7	3,6	3,5	3,0	4,3	3,6	3,6	2,7	3,5				
	Median	4,0	4,0	4,0	4,0	4,0	3,0	4,0	4,0	3,5	4,0	3,0	4,0	4,0	4,0	4,0	3,5	3,0	5,0	4,0	4,0	3,0	3,5				
	Standard Deviation	1,1	0,9	0,8	1,2	0,6	1,1	1,1	1,1	1,1	1,3	1,1	0,8	0,9	0,8	1,2	0,7	1,4	1,2	0,9	1,2	0,6	0,7				

Table 4.10: Tendency of Participants to Enhanced Vending Machine for Medications Dissipation in terms of Education Level and Economic Conditions II

4.1.1.4 Experience of Self-Service Technology(SST)

Experience is a vital component to make something faster, easier and more proper, so this situation should be valid for technology usage especially self-service technology usage. Therefore, it was assumed that when the experience level or familiarity of people to self-service technology increases, their tendencies to use the enhanced vending machine for medications dissipation also increase. According to data from the survey, it is found that this approach is absolutely correct. It is observed that participants who have used the self-service technology before gave more positive answers for the usage of the enhanced vending machine. As it is shown in the Table 4.11 and Table 8.9, according to statistical calculations and Chi-square test, there is a significant relationship between experience level of mechanical/tangible or online self-service technologies and tendency and willingness to use towards the enhanced vending machine except for ATM. It is because, due to the fact that nearly all participants have used the ATM before, there could be not appropriate for the statistical calculation. That is, participants who have used the self-service checkout station in the grocery stores, vending machines, making online shopping and using mobile applications have more tendency to prefer to trust and use the enhanced vending machine for medication dissipation. Moreover, there is a significant relationship between the frequency of the usage of the self-service technologies which directly affects the experience level of the participants, and the tendency and willingness of participants to use towards the enhanced vending machine. That is, as it can be seen in Table 8.8, to a large extent, when the frequencies of usage of participants increase as weekly, monthly or yearly, their trust and tendency/willingness to use to the enhanced vending machine also increase. Additionally, it is found that the satisfaction level derived from the previous experience of usage of SSTs also affect the tendency of participants towards the self-service technology and naturally enhanced vending machines. According to, Table 4.12 and Table 8.10, participants who prefer to use SSTs instead of traditional services like a branch of banks, and while using, participants who have positive feelings like “relax” or “very relax” have a more tendency to prefer to use the enhanced vending machines. All in all, it is revealed that as it is developed in the fourth hypothesis, experienced self-service technology users in Turkey have tendencies to prefer to use the self-service technology to take their prescribed/non-prescribed medications or other needs via enhanced vending machines.

		Q7: Have you ever used the Automated Teller Machine(ATM)?			Q12: Have you ever used the Self-Service Checkout Station in grocery stores?			Q16: Have you ever used the Vending Machines for buying food/water/tea/coffee or other reasons?		
		Total	Yes	No	**Total**	Yes	No	**Total**	Yes	No
Q33: To what extent do you trust the Self-Service Enhanced Vending Machine for Medication Dissipation to take your prescription or non-prescription medicines?	**Total Count**	710	701	9	710	576	134	710	611	99
	None	59	58	1	59	37	22	59	38	21
	Little	101	98	3	101	81	20	101	87	14
	Neutral	282	279	3	282	229	53	282	243	39
	Much	215	214	1	215	179	36	215	196	19
	Very Much	53	52	1	53	50	3	53	47	6
	None	8,3%	8,3%	11,1%	8,3%	6,4%	16,4%	8,3%	6,2%	21,2%
	Little	14,2%	14,0%	33,3%	14,2%	14,1%	14,9%	14,2%	14,2%	14,1%
	Neutral	39,7%	39,8%	33,3%	39,7%	39,8%	39,6%	39,7%	39,8%	39,4%
	Much	30,3%	30,5%	11,1%	30,3%	31,1%	26,9%	30,3%	32,1%	19,2%
	Very Much	7,5%	7,4%	11,1%	7,5%	8,7%	2,2%	7,5%	7,7%	6,1%
	Overall Stat Test of Percentages	**0.43546**			**0.00054**			**0.00001**		
	Average	3,1	3,1	2,8	3,1	3,2	2,8	3,1	3,2	2,7
	Median	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0
	Standard Deviation	1,0	1,0	1,2	1,0	1,0	1,1	1,0	1,0	1,2
Q34: If you know that it is completely secure and fast, to what extent do you want to use the Self-Service Enhanced Vending Machine for Medication Dissipation which is mostly capable of doing everything pharmacies can do?	**Total Count**	710	701	9	710	576	134	710	611	99
	None	49	49	0	49	33	16	49	31	18
	Little	68	68	0	68	53	15	68	59	9
	Neutral	168	164	4	168	123	45	168	136	32
	Much	286	283	3	286	239	47	286	256	30
	Very Much	139	137	2	139	128	11	139	129	10
	None	6,9%	7,0%	0,0%	6,9%	5,7%	11,9%	6,9%	5,1%	18,2%
	Little	9,6%	9,7%	0,0%	9,6%	9,2%	11,2%	9,6%	9,7%	9,1%
	Neutral	23,7%	23,4%	44,4%	23,7%	21,4%	33,6%	23,7%	22,3%	32,3%
	Much	40,3%	40,4%	33,3%	40,3%	41,5%	35,1%	40,3%	41,9%	30,3%
	Very Much	19,6%	19,5%	22,2%	19,6%	22,2%	8,2%	19,6%	21,1%	10,1%
	Overall Stat Test of Percentages	**0.50769**			**0.00004**			**<0,00001**		
	Average	3,6	3,6	3,8	3,6	3,7	3,2	3,6	3,6	3,1
	Median	4,0	4,0	4,0	4,0	4,0	3,0	4,0	4,0	3,0
	Standard Deviation	1,1	1,1	0,8	1,1	1,1	1,1	1,1	1,1	1,2

Table 4.11: Tendency of Participants to Enhanced Vending Machine for Medications Dissipation in terms of Experience of Self-Service Technology(SST) I

		Q26: To what extent do you prefer to use the Automated Teller Machines(ATMs) instead of the bank branch?						Q27: To what extent do you prefer to use the Self-Service Checkout Stations in grocery stores instead of the traditional checkout counter?					
		Total	None	Little	Neutral	Much	Very Much	Total	None	Little	Neutral	Much	Very Much
Q33: To what extent do you trust the Self-Service Enhanced Vending Machine for Medication Dissipation to take your prescription or non-prescription medicines?	Total Count	710	15	44	93	187	371	710	67	201	218	142	82
	None	59	4	7	16	16	16	59	19	19	10	5	6
	Little	101	5	7	17	26	46	101	13	40	32	9	7
	Neutral	282	3	18	43	82	136	282	24	87	95	59	17
	Much	215	2	11	16	60	126	215	10	46	68	59	32
	Very Much	53	1	1	1	3	47	53	1	9	13	10	20
	None	8,3%	26,7%	15,9%	17,2%	8,6%	4,3%	8,3%	28,4%	9,5%	4,6%	3,5%	7,3%
	Little	14,2%	33,3%	15,9%	18,3%	13,9%	12,4%	14,2%	19,4%	19,9%	14,7%	6,3%	8,5%
	Neutral	39,7%	20,0%	40,9%	46,2%	43,9%	36,7%	39,7%	35,8%	43,3%	43,6%	41,5%	20,7%
	Much	30,3%	13,3%	25,0%	17,2%	32,1%	34,0%	30,3%	14,9%	22,9%	31,2%	41,5%	39,0%
	Very Much	7,5%	6,7%	2,3%	1,1%	1,6%	12,7%	7,5%	1,5%	4,5%	6,0%	7,0%	24,4%
	Overall Stat Test of Percentages	**<0,00001**						**<0,00001**					
	Average	3,1	2,4	2,8	2,7	3,0	3,4	3,1	2,4	2,9	3,2	3,4	3,6
	Median	3,0	2,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	4,0
	Standard Deviation	1,0	1,2	1,1	1,0	0,9	1,0	1,0	1,1	1,0	0,9	0,9	1,2
Q34: If you know that it is completely secure and fast, to what extent do you want to use the Self-Service Enhanced Vending Machine for Medication Dissipation which is mostly capable of doing everything pharmacies can do?	Total Count	710	15	44	93	187	371	710	67	201	218	142	82
	None	49	3	8	15	9	14	49	17	15	8	6	3
	Little	68	6	7	13	18	24	68	10	30	20	6	2
	Neutral	168	1	9	35	54	69	168	17	55	61	25	10
	Much	286	3	17	23	94	149	286	17	75	97	73	24
	Very Much	139	2	3	7	12	115	139	6	26	32	32	43
	None	6,9%	20,0%	18,2%	16,1%	4,8%	3,8%	6,9%	25,4%	7,5%	3,7%	4,2%	3,7%
	Little	9,6%	40,0%	15,9%	14,0%	9,6%	6,5%	9,6%	14,9%	14,9%	9,2%	4,2%	2,4%
	Neutral	23,7%	6,7%	20,5%	37,6%	28,9%	18,6%	23,7%	25,4%	27,4%	28,0%	17,6%	12,2%
	Much	40,3%	20,0%	38,6%	24,7%	50,3%	40,2%	40,3%	25,4%	37,3%	44,5%	51,4%	29,3%
	Very Much	19,6%	13,3%	6,8%	7,5%	6,4%	31,0%	19,6%	9,0%	12,9%	14,7%	22,5%	52,4%
	Overall Stat Test of Percentages	**<0,00001**						**<0,00001**					
	Average	3,6	2,7	3,0	2,9	3,4	3,9	3,6	2,8	3,3	3,6	3,8	4,2
	Median	4,0	2,0	3,0	3,0	4,0	4,0	4,0	3,0	4,0	4,0	4,0	5,0
	Standard Deviation	1,1	1,4	1,3	1,2	0,9	1,0	1,1	1,3	1,1	1,0	1,0	1,0

Table 4.12: Tendency of Participants to Enhanced Vending Machine for Medications Dissipation in terms of Experience of Self-Service Technology(SST) II

4.1.1.5 Pharmacists

		Q5: Are you a Pharmacist?			Q6: Are you a Pharmacist who has own pharmacy?		
		Total	Yes	No	Total	Yes	No
Q33: To what extent do you trust the Self-Service Enhanced Vending Machine for Medication Dissipation to take your prescription or non-prescription medicines?	Total Count	710	68	642	68	48	20
	None	59	22	37	22	19	3
	Little	101	14	87	14	10	4
	Neutral	282	16	266	16	8	8
	Much	215	14	201	14	9	5
	Very Much	53	2	51	2	2	0
	None	8,3%	32,4%	5,8%	32,4%	39,6%	15,0%
	Little	14,2%	20,6%	13,6%	20,6%	20,8%	20,0%
	Neutral	39,7%	23,5%	41,4%	23,5%	16,7%	40,0%
	Much	30,3%	20,6%	31,3%	20,6%	18,8%	25,0%
	Very Much	7,5%	2,9%	7,9%	2,9%	4,2%	0,0%
	Overall Stat Test of Percentages	<0,00001			<0,00001		
	Average	3,1	2,4	3,2	2,4	2,3	2,8
	Median	3,0	2,0	3,0	2,0	2,0	3,0
	Standard Deviation	1,0	1,2	1,0	1,2	1,3	1,0
Q34: If you know that it is completely secure and fast, to what extent do you want to use the Self-Service Enhanced Vending Machine for Medication Dissipation which is mostly capable of doing everything pharmacies can do?	Total Count	710	68	642	68	48	20
	None	49	25	24	25	21	4
	Little	68	9	59	9	6	3
	Neutral	168	16	152	16	10	6
	Much	286	15	271	15	9	6
	Very Much	139	3	136	3	2	1
	None	6,9%	36,8%	3,7%	36,8%	43,8%	20,0%
	Little	9,6%	13,2%	9,2%	13,2%	12,5%	15,0%
	Neutral	23,7%	23,5%	23,7%	23,5%	20,8%	30,0%
	Much	40,3%	22,1%	42,2%	22,1%	18,8%	30,0%
	Very Much	19,6%	4,4%	21,2%	4,4%	4,2%	5,0%
	Overall Stat Test of Percentages	<0,00001			<0,00001		
	Average	3,6	2,4	3,7	2,4	2,3	2,9
	Median	4,0	2,5	4,0	2,5	2,0	3,0
	Standard Deviation	1,1	1,3	1,0	1,3	1,3	1,2

Table 4.13: Tendency of Pharmacists to Enhanced Vending Machine for Medications Dissipation I

As it is explained pharmacists are one of the main stakeholders of this self-service technology because the enhanced vending machine is directly related to their profession. In fact, how pharmacists will react to this technology, which is useful for them, was one of the most important points of this research. It is because, as it is mentioned so many times, this technology can help them and also their profession in near future. However, data obtained from the survey show that participants who are pharmacists prefer to use traditional services instead of SSTs much more than other participants. Table 8.11 and Table 8.12 involve the data belong to participants who are the pharmacists and pharmacists who have their own a pharmacy. As it can be seen in these tables, as a

Table 4.14: Tendency of Pharmacists to Enhanced Vending Machine for Medications Dissipation II

		Q5: Are you a Pharmacist?			Q6: Are you a Pharmacist who has own pharmacy?		
		Total	Yes	No	Total	Yes	No
Q35: If you are sure that this Self-Service Enhanced Vending Machine for Medications Dissipation will reduce your workload and costs (such as employee costs), To what extent would you prefer to integrate the Self Service Advanced Medication Vending Machine into your pharmacy?	Total Count	68	68	0	68	48	20
	None	17	17	0	17	13	4
	Little	18	18	0	18	13	5
	Neutral	19	19	0	19	13	6
	Much	11	11	0	11	7	4
	Very Much	3	3	0	3	2	1
	None	2,4%	25,0 %	0,0%	25,0%	27,1%	20,0%
	Little	2,5%	26,5 %	0,0%	26,5%	27,1%	25,0%
	Neutral	2,7%	27,9 %	0,0%	27,9%	27,1%	30,0%
	Much	1,5%	16,2 %	0,0%	16,2%	14,6%	20,0%
	Very Much	0,4%	4,4%	0,0%	4,4%	4,2%	5,0%
	Overall Stat Test of Percentages	1			0.95993		
	Average	2,5	2,5		2,5	2,4	2,7
	Median	2,0	2,0		2,0	2,0	3,0
	Standard Deviation	1,2	1,2		1,2	1,2	1,2
Q36: To what extent do you believe that the Self Service Enhanced Vending Machine for Medications Dissipation, which can operate 24/7, can increase your profit?	Total Count	68	68	0	68	48	20
	None	13	13	0	13	12	1
	Little	19	19	0	19	13	6
	Neutral	23	23	0	23	13	10
	Much	11	11	0	11	8	3
	Very Much	2	2	0	2	2	0
	None	1,8%	19,1 %	0,0%	19,1%	25,0%	5,0%
	Little	2,7%	27,9 %	0,0%	27,9%	27,1%	30,0%
	Neutral	3,2%	33,8 %	0,0%	33,8%	27,1%	50,0%
	Much	1,5%	16,2 %	0,0%	16,2%	16,7%	15,0%
	Very Much	0,3%	2,9%	0,0%	2,9%	4,2%	0,0%
	Overall Stat Test of Percentages	1			0.19571		
	Average	2,6	2,6		2,6	2,5	2,8
	Median	3,0	3,0		3,0	2,0	3,0
	Standard Deviation	1,1	1,1		1,1	1,2	0,8

percentage, pharmacists who have not their own pharmacy much more prefer to use SST than pharmacist who have own their pharmacy, and pharmacists who have not their own pharmacy are more relax and happy while using SST. According to statistical calculations and Chi-square test, pharmacists do not trust the enhanced vending machine, they also do not want to use it for their needs. As it is shown in Table 4.13, with respect to participants who are not pharmacists, pharmacists have a less tendency to prefer to use the enhanced vending machine, and they do not trust it on a large scale. However, as it is also seen in Table 4.13, pharmacists who have not an own pharmacy have a more tendency to trust and prefer to use to the enhanced vending machine for their medication or other needs, but the overall ratio of pharmacists is below the “Neutral” or the general average which is “3”. Moreover, as it is analysed before, although most of the participants think that the enhanced vending machine can provide faster service than pharmacists, pharmacists think that the enhanced vending

machine cannot be faster than pharmacies and pharmacists(Table 8.13). In addition to all of these, as it is mentioned in the methodology part, some questions are only answered by participants who are a pharmacist. Therefore, according to Table 4.14, pharmacists think that enhanced vending machine cannot increase their profit, and even if they are sure that enhanced vending machine can reduce their workload and costs, they do not also want to integrate it their pharmacies. As it can be seen in Table 4.14, all values are below the "Neutral" or general average which is "3". It appears that pharmacists think the enhanced vending machine for medications dissipation is a general threat to the future of their profession. It is because, they may be thinking that in the future, this device completely substitutes their profession at all, and it causes the extinction of their profession. To sum up, with the data from the survey, on the contrary of the fifth hypothesis, it reveals that pharmacists do not have a tendency to prefer to integrate and implement the enhanced vending machine to their pharmacies because they consider this technology as a risk instead of an advantage. Even, pharmacists who have not their own pharmacy have more tendencies to prefer to use this self-service technology to take their medications or needs.

		Q18: Have you ever gone to the pharmacy to take your medication(s) or other need(s)? (If you are a pharmacist with your own pharmacy, have you ever gone to another pharmacy other than your own pharmacy for this reason?)		
		Total	Yes	No
Q25: To what extent do you think that Self Service Technologies (Automated Teller Machine (ATM), Self Service Checkout Station, Vending Machines or Online Services) save time?	Total Count	710	698	12
	None	7	7	0
	Little	23	20	3
	Neutral	101	99	2
	Much	306	300	6
	Very Much	273	272	1
	None	1,0%	1,0%	0,0%
	Little	3,2%	2,9%	25,0%
	Neutral	14,2%	14,2%	16,7%
	Much	43,1%	43,0%	50,0%
	Very Much	38,5%	39,0%	8,3%
	Overall Stat Test of Percentages	0.00031		

		Q18: Have you ever gone to the pharmacy to take your medication(s) or other need(s)? (If you are a pharmacist with your own pharmacy, have you ever gone to another pharmacy other than your own pharmacy for this reason?)		
		Total	Yes	No
Q32: To what extent would you like to use the Self Service Enhanced Vending Machine for Medications Dissipation to take your prescribed or non-prescribed medications?	Total Count	710	698	12
	None	80	73	7
	Little	105	103	2
	Neutral	230	228	2
	Much	212	211	1
	Very Much	83	83	0
	None	11,3%	10,5%	58,3%
	Little	14,8%	14,8%	16,7%
	Neutral	32,4%	32,7%	16,7%
	Much	29,9%	30,2%	8,3%
	Very Much	11,7%	11,9%	0,0%
	Overall Stat Test of Percentages	0.00001		

		Q18: Have you ever gone to the pharmacy to take your medication(s) or other need(s)? (If you are a pharmacist with your own pharmacy, have you ever gone to another pharmacy other than your own pharmacy for this reason?)		
		Total	Yes	No
Q38: To what extent do you believe that patients will prefer the Self Service Enhanced Vending Machine for Medications Dissipation for their prescribed / non-prescribed medications or needs instead of pharmacy?	Total Count	710	698	12
	None	39	36	3
	Little	236	232	4
	Neutral	296	292	4
	Much	117	116	1
	Very Much	22	22	0
	None	5,5%	5,2%	25,0%
	Little	33,2%	33,2%	33,3%
	Neutral	41,7%	41,8%	33,3%
	Much	16,5%	16,6%	8,3%
	Very Much	3,1%	3,2%	0,0%
	Overall Stat Test of Percentages	0.04913		

Average	4,1	4,2	3,4
Median	4,0	4,0	4,0
Standard Deviation	0,9	0,8	1,0

Average	3,2	3,2	1,8
Median	3,0	3,0	1,0
Standard Deviation	1,2	1,1	1,1

Average	2,8	2,8	2,3
Median	3,0	3,0	2,0
Standard Deviation	0,9	0,9	1,0

Table 4.15: Overall Tendency and Response of Participants gone to the pharmacy before about Enhanced Vending Machines for Medications Dissipation

In conclusion, after all of hypotheses analyses, to Table 4.15, 82%(43%+39%) of participants who have gone to the pharmacy to take their medications or other needs and 58.3%(50%+8.3%) of participants who have not gone to the pharmacies before think that self-service technologies really save time. According to Table 4.15, even though, most participants think that other people or patients will not prefer to use the enhanced vending machine for medications dissipation, 41.6%(29.9%+11.7%) of all participants have a positive approach to use the enhanced vending machine even if they do not be sure it is completely secure and fast. Briefly, as a result of the survey/questionnaire which is filled by 710 different participants and analyses, it is founded and revealed that Turkish people have a tendency to prefer to use the self-service enhanced vending machine so as to take their prescribed/non-prescribed medications or other medical needs. Hence, the outcome of the first objective of this research has been brought to light to able to answer the main question of this research.

4.2 Results of Study for Second and Third Objective of The Research

As it is explained in the methodology chapter, the first and main objective to be able to answer the research question is the measuring of the tendency of the Turkish society towards self-service technology, especially in medications dissipation via the enhanced vending machine which is integrated to the pharmacies. The second and third objectives of the research are mainly the supportive objectives for the first and main objective.

The second objective of the research is to search the legal and legislative dimensions of the enhanced vending machine for medications dissipation. According to investigations and studies are made, as it is mentioned before, in Turkey, all medications have to be sold in the pharmacies, additionally, the extent of over-the-counter(OTC) medications differ from other countries. That is, even though some

medications are not classified as OTC, they can be sold without prescriptions in pharmacies. According to regulations, any of the medications such as antibiotics, painkillers, antihistaminics and so forth which are registered to the Ministry of Health of Turkey must not be sold in any places like supermarkets. However, there are some medicines like creams or vitamins which are registered to the Ministry of Commerce of Turkey can be sold some stores as an addition to pharmacies. Moreover, according to Turkish pharmacists' association, medications should be sold under pharmacist supervision (teb.org, 2017). Briefly, in terms of regulations and legislations, it seems that the self-service enhanced vending machine has not got the characteristic against Turkish law, since in fact, as it is explained this machine will mainly stand in the pharmacy, and it will be under the pharmacist's responsibility.

The third objective of the research is to examine the safety and reliability of the enhanced vending machine. As it is mentioned that all over the world, ATMs have been used for a long time. According to data from the survey, one of the most popular self-service technology in Turkey, and nearly all participants have used the ATMs in their lives. In fact, now, there are 53077 ATMs in Turkey (bkm.com.tr), so this shows how ATMs are reliable and safe. Likewise, self-service checkout stations and vending machines are highly popular in Turkey, so in terms of their security and reliability issues, they are safe devices. Thus, the enhanced vending machine for medications dissipation includes as similar technologies as ATMs, checkout stations and vending machines, so it should be really safe and reliable. However, the exact and definite safety and reliability level of the enhanced vending machine will be much more revealed after it is manufactured and began to use.

4.3 Outcome of the Analyses and Results

After all analyses, examinations and researches made, it is found the answer of the main research question which is; *"On average, is an integration of the enhanced vending machines so as to dissipate the medications in Turkey convenient and feasible?, and To what extent is it possible?"*. Thanks to the survey which was designed and prepared by the researcher of this paper, it is revealed that the self-service enhanced vending machine for medications dissipation is substantially convenient and feasible for Turkey on the basis of the tendency and willingness of

the Turkish society towards it, the convenient regulations and legislations of Turkish government, and the safety and reliability of general SSTs.

From a broad perspective, even if most pharmacists consider this technology as a threat for the future of their profession, some pharmacists seem it as a benefit for them and sake for the future of their profession. Therefore, thanks to pharmacists who approach this technology positively, this technology can attain a place in Turkey. Therefore, this technology can spread progressively, and in time, other pharmacists who consider it as a threat can understand that this enhanced vending machine is not dangerous or harmful for them.

Besides, according to the legislation which is; "*medications should be sold under pharmacist supervision"*, at night, when pharmacies are closed, due to fact that people or patients cannot immediately and directly communicate with pharmacists, the enhanced vending machine can be easily programmed so that at night, some severe and risky medications like antibiotics cannot be dissipated or delivered by the machine.

In conclusion, despite some adversative people and pharmacists, with some little adjustments in respect of regulations, the Enhanced Vending Machine which is designed and proposed in this research is found to be suitable for its integration to Turkey and also the dissipation of medications in Turkey.

5.0 CONCLUSION AND DISCUSSION

It should be accepted and embraced that self-service technology is an inevitable part of people's lives. Day by day, SSTs have been occupying more places owing to their advantages and benefits. Moreover, due to a lot of faculty of pharmaceutical sciences and graduates, it creates some problems for the new, existing pharmacists and the Turkish government. Therefore, in this research, it is examined and investigated whether self-service technology is suitable for the dissipation of medications in Turkey. To reveal it, the enhanced vending machine was designed and proposed according to the Turkish Health System, and then accordingly, the survey was prepared to measure the tendencies of the Turkish society to self-service technology especially in medications dissipation. Thanks to this survey, Turkish society is analysed from different perspectives which are the variables of this research. To data obtained from the survey, the effects of gender differences and age/generation differences on the tendency and willingness to the enhanced vending machine are clearly exhibited. Besides, for Turkey, it is showed up that the previous experience and positive satisfaction derived from past usages help people to prefer to use other SSTs and also new SSTs. In addition to these, it is found that the education level and economic condition of Turkish society do not purely affect their tendencies of usage of the SSTs and the enhanced vending machine for medications dissipation. Lastly, it is presented that a considerable amount of pharmacists consider this technology as a threat to the future of their profession even if this technology is aimed to benefit them in a lot of ways. However, according to data of the survey, it is brought to light that Turkish society has a tendency to prefer to use the enhanced vending machine for their prescribed/non-prescribed medications and other needs. Additionally, the researches are made showed that from the point of regulations and legislations, and in the sense of safety and reliability, the enhanced vending machine is convenient and feasible for Turkey to great extent.

6.0 LIMITATIONS AND FUTURE RESEARCH

There are some limitations to this research. First of all, for the survey method, non-probability sampling was preferred, and the survey was intensively distributed as a way of snowball. Therefore, participants of the survey may have come from some specific parts of the society, and some parts of society could not have reached the survey so this situation affects the results of the survey. Moreover, the equal number of participants from different genders and different age groups might be better for the precision of the survey. Additionally, this research aims to integrate the enhanced vending machine for medications dissipation into the existing pharmacies. Thus, for future research, the distribution of participants can be much more controlled, and for other reasons, the enhanced vending machine can be designed differently and can be placed in different places.

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8.0 APPENDIX

Appendix A The Survey Questions

Turkish Version of Survey and Survey Questions

Bu anket, katılımcıların Türkiye'deki Bankamatik (ATM), marketlerdeki Self Servis Ödeme İstasyonları, Otomatik Satış Makineleri(Otomat) ve Çevrimiçi(Online) hizmetler gibi Self Servis teknolojisine olan eğilimini ve özellikle bankalardaki Bankamatikler (ATM'ler) gibi eczanelerin vitrininde çalışacak olan İlaç Temini için kullanılacak “Self Servis Gelişmiş İlaç Otomatı" hakkındaki görüşlerini ölçmeyi amaçlamaktadır.

7/24 çalışabilen İlaç Temini için kullanılacak "Self Servis Gelişmiş İlaç Otomatı" reçeteli ilaçların temini de dahil eczanelerin yapabileceği neredeyse her şeyi yapabilecektir. Bütün bunlara ek olarak kullanıcılar veya hastalar bir terslik olması durumda ya da herhangi bir şey sormak istedikleri zaman makinenin bağlı olduğu eczaneye hemen girip eczacı ile görüşebilme şansına her zaman sahip olacaklardır.

"Self Servis Gelişmiş İlaç Otomatı" nın sorumluluğu ve faydaları tamamen entegre olduğu eczaneye ait olacaktır. Eczacılar "Self Servis Gelişmiş İlaç Otomatı" nı, kendileri açısından artı ve eksilerine göre eczanelerine entegre etme kararını kendileri verecektir.

- Bu anket yaklaşık 5-10 dakika kadar sürecektir.
- Bu anket tamamen anonimdir ve araştırmacı katılımcıların kimliğini hiçbir şekilde bilemez veya tespit edemez.
- Ankette olan her soruyu cevaplamanız araştırma için büyük önem taşımaktadır ama eğer devam etmek istemezseniz, anketi istediğiniz vakit kapatabilirsiniz.

Araştırmacının, verdiğim cevapları kendi araştırmasında kullanmasına izin veriyorum. (Ankete devam etmek için lütfen bu kutunun üstüne tıklayınız.) ☐

Q1. Cinsiyetiniz nedir?

a) Kadın b) Erkek c) Diğer d) Cevap vermek istemiyorum

Q2. Hangi yaş grubundasınız?

a) 18-25 b) 26-40 c) 41-55 d) 56+

e) Cevap vermek istemiyorum

Q3. Mezun olduğunuz son derece nedir?

a) Lise b) Lisans c) Yüksek Lisans d) Doktora

e) Cevap vermek istemiyorum

Q4. Aylık net geliriniz nedir? (Eğer öğrenciyseniz, lütfen ilk aralığı seçiniz)

a) 0-2499TL b) 2500-4999TL c) 5000-7499TL d) 7500 + TL

e) Cevap vermek istemiyorum

Q5. Eczacı mısınız?

a) Evet b) Hayır

Q6. Kendi eczanesi olan bir Eczacı mısınız?

a) Evet b) Hayır

Q7. Hiç nakit işlemleriniz(para çekme/yatırma, havale gibi) için Bankamatik (ATM) kullandınız mı?

a) Evet b) Hayır

Q8. Normal koşullarda, Bankamatikleri (ATM) ne sıklıkla kullanıyorsunuz?

a) Haftada bir defa b) Haftada bir defadan fazla c) Ayda bir defa

d) Ayda bir defadan fazla e) 2-3 ayda bir defa f) Yılda en fazla 1-2 defa

Q9. Hiç ödemeleriniz için Çevrimiçi(Online) bankacılık veya Mobil bankacılık sistemini kullandınız mı?

a) Evet b) Hayır

Q10. Hiç seyahatiniz için, Çevrimiçi(Online) hizmetleri kullanarak veya Mobil uygulamaları kullanarak bilet aldınız ya da rezervasyon yaptınız mı?

a) Evet b) Hayır

Q11. Hiç uçuşlarınız için Çevrimiçi(Online) veya Mobil hizmetleri kullanarak check-in yaptınız mı?

a) Evet b) Hayır

Q12. Hiç marketlerde Self Servis Ödeme İstasyonunu(Jet Kasa gibi) kullandınız mı?

a) Evet b) Hayır

Q13. Normal koşullarda, marketlerde Self Servis Ödeme İstasyonunu ne sıklıkla kullanıyorsunuz?

a) Haftada bir defa b) Haftada bir defadan fazla c) Ayda bir defa

d) Ayda bir defadan fazla e) 2-3 ayda bir defa f) Yılda en fazla 1-2 defa

Q14. Hiç Çevrimiçi(Online) veya Mobil hizmetleri kullanarak yemek sipariş ettiniz mi?

a) Evet b) Hayır

Q15. Hiç Çevrimiçi(Online) veya Mobil hizmetleri kullanarak alışveriş yaptınız mı?

a) Evet b) Hayır

Q16. Hiç Otomatik Satış Makinelerini(Otomatları) yiyecek/su/çay/kahve veya başka nedenlerle kullandınız mı?

a) Evet b) Hayır

Q17.Normal koşullarda, Otomatik Satış Makinelerini(Otomatları) yiyecek /su/çay/kahve veya başka nedenler için ne sıklıkta kullanıyorsunuz?

a) Haftada bir defa b) Haftada bir defadan fazla c) Ayda bir defa

d) Ayda bir defadan fazla e) 2-3 ayda bir defa f) Yılda en fazla 1-2 defa

Q18. Hiç ilaçlarınızı veya diğer ihtiyaçlarınızı almak için eczaneye gittiniz mi? (Kendi eczanesi olan Eczacı'iseniz, hiç kendi eczaneniz haricinde başka eczaneye gittiniz mi?)

a) Evet b) Hayır

Q19. Normal şartlar altında, herhangi bir nedenden dolayı ne sıklıkla eczaneye gidersiniz? (Kendi eczanesi olan Eczacı'iseniz, kendi eczaneniz haricinde başka eczaneye ne sıklıkla gidersiniz?)

a) Haftada bir defa b) Haftada bir defadan fazla c) Ayda bir defa
d) Ayda bir defadan fazla e) 2-3 ayda bir defa f) Yılda en fazla 1-2 defa

Q20. Hiç doktor tarafından reçete edilen ilaçlarınızı almak için eczaneye gittiniz mi? (Kendi eczanesi olan Eczacı'iseniz, hiç kendi eczaneniz haricinde başka eczaneye bu sebeple gittiniz mi?)

a) Evet b) Hayır

Q21. Hiç reçeteli/reçetesiz ilaçlarınızı ya da başka ihtiyaçlarınızı almak için eczaneye gittiğinizde sıra beklediniz mi?

a) Evet b) Hayır

Q22. Ortalama olarak, reçeteli/reçetesiz ilaçlarınızı ya da başka ihtiyaçlarınızı alana kadar eczanede ne kadar süre bekliyorsunuz?

a) 1-2 dakika b) 3-5 dakika c) 5-10 dakika d) 10 dakikadan fazla

Q23. Hiç gece vakti veya tatillerde nöbetçi eczane aramak zorunda kaldınız mı?

a) Evet b) Hayır

Q24. Hiç gece vakti veya tatil günlerinde reçeteli/reçetesiz ilaç alamadığınız ya da alamayacağınızı bildiğiniz için kendinizi umutsuz veya çaresiz hissettiniz mi?

a) Evet b) Hayır

Q25. Ne ölçüde Self Servis Teknolojilerinin (Bankamatik(ATM), Self Servis Ödeme İstasyonu, Otomatik Satış Makineleri(Otomat) veya Çevrimiçi(Online) hizmetler) zaman tasarrufu sağladığını düşünüyorsunuz?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Q26. Ne ölçüde nakit işlemleriniz için banka şubesi yerine Bankamatik (ATM'leri) kullanmayı tercih edersiniz?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Q27. Ne ölçüde marketlerde geleneksel ödeme noktaları yerine Self-Servis Ödeme İstasyonlarını(Jet Kasa gibi) kullanmayı tercih edersiniz?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Q28. Bankamatik (ATM) kullanırken kendinizi nasıl hissedersiniz?

a)Çok Endişeli b)Endişeli c)Normal d)Rahat e)Çok Rahat

Q29. Marketlerde Self Servis Ödeme İstasyonu'nu kullanırken kendinizi nasıl hissedersiniz?

a)Çok Endişeli b)Endişeli c)Normal d)Rahat e)Çok Rahat

Q30. Otomatik Satış Makinelerini(Otomatları) yiyecek/su/çay/kahve veya başka nedenlerle kullanırken nasıl hissedersiniz?

a)Çok Endişeli b)Endişeli c)Normal d)Rahat e)Çok Rahat

Q31. Ne ölçüde eczanelere/eczacılara güvenirsiniz?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Bankamatik (ATM), marketlerdeki Self Servis Ödeme İstasyonları, Otomatik Satış Makineleri(Otomat) gibi 7/24 çalışabilen İlaç Temini için kullanılacak "Self Servis Gelişmiş İlaç Otomatı" reçeteli ilaçların temini de dahil eczanelerin yapabileceği neredeyse her şeyi yapabilecektir. Bütün bunlara ek olarak kullanıcılar veya hastalar bir terslik olması durumda ya da herhangi bir şey sormak istedikleri zaman makinenin doğrudan bağlı ve entegre olduğu eczaneye hemen girip eczacı ile görüşebilme şansına her zaman sahip olacaklardır. "Self Servis Gelişmiş İlaç Otomatı" nın sorumluluğu ve faydaları tamamen entegre olduğu eczaneye ait olacaktır. Eczacılar "Self Servis Gelişmiş İlaç Otomatı" nı, kendileri açısından artı ve eksilerine göre eczanelerinin dış cephesine(vitrinine[Bankamatik(ATM]) gibi) entegre

etme kararını kendileri verecektir. **Aşağıdaki soruları yukarıdaki bilgileri göz önünde bulundurarak cevaplandırınız.**

Q32. Ne ölçüde reçeteli veya reçetesiz ilaçlarınızı almak için Self Servis Gelişmiş İlaç Otomatı'nı kullanmak istersiniz?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Q33. Ne ölçüde Gelişmiş İlaç Otomatı'na, reçeteli veya reçetesiz ilaçlarınızı almak için güvenirsiniz?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Q34. Tamamen güvenli ve hızlı olduğuna emin olursanız, Ne ölçüde eczanelerin yapabileceği neredeyse her şeyi yapabilen Self Servis Gelişmiş İlaç Otomatı'nı kullanmak istersiniz?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Q34a. Ne ölçüde Self Servis Gelişmiş İlaç Otomatı'nın eczanelerden daha hızlı hizmet vereceğine inanırsınız?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Q35. Bu ilaç makinesi iş yükünüzü ve maliyetlerinizi azaltacağına emin olursanız (çalışan maliyeti gibi), Ne ölçüde Self Servis Gelişmiş İlaç Otomatı'nı eczanenize entegre etmeyi tercih edersiniz?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Q36. Ne ölçüde 7/24 çalışabilen Self Servis Gelişmiş İlaç Otomatı'nın kârınızı artırabileceğine inanırsınız?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Q37. Ne ölçüde Self Servis Gelişmiş İlaç Otomatı'nın, günümüzdeki teknolojik gelişmeler dikkate alındığında, hatasız çalışmasına güvenirsiniz?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Q38. Ne ölçüde hastaların eczane yerine reçeteli/reçetesiz ilaç ihtiyaçları için Self Servis Gelişmiş İlaç Otomatı'nı tercih edeceğine inanırsınız?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

Q39. Ne ölçüde Self Servis Gelişmiş İlaç Otomatı'nın entegre edilmesi ile yakın gelecekte eczane ve eczacı sayısının azalabileceğine inanırsınız?

a)Hiç b)Az c)Orta d)Fazla e)Çok Fazla

English Version of The Survey and Survey Questions

This survey aims to measure the tendency of participants to self-service technologies like ATMs, self-kiosks or online services in Turkey, and especially opinion about the "Enhanced Vending Machines for Medications Dissipations" where will operate in the display window of pharmacies like ATMs in banks.

The "Enhanced Vending Machines for Medications Dissipation" which can operate 24/7 will be capable of doing nearly everything which pharmacies can do, including the delivery of prescription medications. In addition to these, users or patients will always have a chance to enter the pharmacy to which the machine is connected and talk to the pharmacist in case of something wrong or when they want to ask anything.

The responsibility and also benefits of this "Enhanced Vending Machine" will totally belong to the pharmacy where is integrated and connected. Pharmacists will make the decision to integrate the "Self-Service Enhanced Vending Machine" into their pharmacies according to its pros and cons.

- This survey takes approximately 5-10 minutes.
- This survey is completely anonymous, and the researcher cannot know and detect the participants' identity in no way.
- You can leave the survey at any time if you do not want to continue.

I give consent to the researcher to use my answers in his/her research. ☐

(Please check the box to continue to the survey.)

Q1. What is your gender?

a) Female b) Male c) Other d) Don't want to answer

Q2. Which age group you are in?

a) 18-25 b) 26-40 c) 41-55 d) 56+

e) Don't want to answer

Q3. What is the last degree you graduated from?

a) High School b) Bachelor c) Master d) PhD

e) Don't want to answer

Q4. What is your monthly net income? (If you are a student please choose the first interval)

a) 0-2499TL b) 2500-4999TL c) 5000-7499TL d) 7500+TL

e) Don't want to answer

Q5. Are you a Pharmacist?

a) Yes b) No

Q6. Are you a Pharmacist who has own pharmacy?

a) Yes b) No

Q7. Have you ever used the Automated Teller Machine(ATM)?

a) Yes b) No

Q8. In normal circumstances, How often do you use the Automated Teller Machine(ATM)?

a) Once a week b) More than once a week c) Once a month

d) More than once a month e) Once in 2-3 months f) 1-2 Times a Year

Q9. Have you ever used the Online Banking or Mobile Banking Applications for your transactions?

a) Yes b) No

Q10. Have you ever purchased or booked tickets for your trip using the Online Services or Mobile Applications?

a) Yes b) No

Q11. Have you ever checked in for your flights using the Online Services or Mobile Applications?

a) Yes b) No

Q12. Have you ever used the Self-Service Checkout Station in grocery stores?

a) Yes b) No

Q13. In normal circumstances, How often do you use self-service checkout stations in grocery stores?

a) Once a week b) More than once a week c) Once a month

d) More than once a month e) Once in 2-3 months f) 1-2 Times a Year

Q14. Have you ever ordered food using the Online Services or Mobile Applications?

a) Yes b) No

Q15. Have you ever made shopping using the Online Services or Mobile Applications?

a) Yes b) No

Q16. Have you ever used the Vending Machines for buying food/water/tea/coffee or other reasons?

a) Yes b) No

Q17. In normal circumstances, How often do you use the vending machines for buying food/water or other reasons?

a) Once a week b) More than once a week c) Once a month

d) More than once a month e) Once in 2-3 months f) 1-2 Times a Year

Q18. Have you ever gone to the pharmacy to take your medication(s) or other need(s)? (If you are a pharmacist with your own pharmacy, have you ever gone to another pharmacy other than your own pharmacy for this reason?)

a) Yes b) No

Q19. In normal circumstances, How often do you go to the pharmacy for any reason? (If you are a pharmacist with your own pharmacy, how often do you go to another pharmacy except your own pharmacy?)

a) Once a week b) More than once a week c) Once a month

d) More than once a month e) Once in 2-3 months f) 1-2 Times a Year

Q20. Have you ever gone to the pharmacy to take your medication(s) prescribed by the doctor? (If you are a pharmacist with your own pharmacy, have you ever gone to another pharmacy other than your own pharmacy for this reason?)

a) Yes b) No

Q21. When you go to the pharmacy, do you wait in line in the pharmacy to take your prescribed or non-prescribed medications?

a) Yes b) No

Q22. On average, How much time do you spend in the pharmacy until taking your prescribed or non-prescribed medications?

a) 1-2 min(s) b) 3-5 mins c) 5-10 mins d) More than 10 mins

Q23. Have you ever had to seek a pharmacy on duty at night or on holidays?

a) Yes b) No

Q24. Have you ever felt desperate because you could not take prescribed or non-prescribed medications at night and on holidays?

a) Yes b) No

Q25. To what extent do you think that Self Service Technologies (Automated Teller Machine (ATM), Self Service Checkout Station, Vending Machines or Online Services) save time?

a) None b) Little c) Neutral d) Much e) Very Much

Q26. To what extent do you prefer to use the Automated Teller Machines(ATMs) instead of the bank branch?

a) None b) Little c) Neutral d) Much e) Very Much

Q27. To what extent do you prefer to use the Self-Service Checkout Stations in grocery stores instead of the traditional checkout counter?

a) None b) Little c) Neutral d) Much e) Very Much

Q28. How do you feel while using the Automated Teller Machine(ATM)?

a) Very Nervous b) Nervous c) Neutral d) Relax e) Very Relax

Q29. How do you feel while using the Self-Service Checkout Station in grocery stores?

a) Very Nervous b) Nervous c) Neutral d) Relax e) Very Relax

Q30. How do you feel while using the vending machines for buying food/water/tea/coffee or other reasons?

a) Very Nervous b) Nervous c) Neutral d) Relax e) Very Relax

Q31. To what extent do you trust pharmacies/ pharmacists?

a) None b) Little c) Neutral d) Much e) Very Much

Like ATMs, Self-service Checkout Stations and Vending Machines, the "Enhanced Vending Machines for Medications Dissipation" which can operate 24/7 will be capable of doing nearly everything which pharmacies can do, including the delivery of prescription medications. In addition to these, users or patients will always have the chance to enter the pharmacy to which the machine is connected and talk to the pharmacist in case of something wrong or when they want to ask anything. The responsibility and also benefits of these "Enhanced Vending Machines" will totally belong to the pharmacy where is integrated and connected. According to its pros and cons, pharmacists will make the decision to integrate "Self-Service Enhanced Vending Machine" into their display window of pharmacies like ATMs in banks. **Answer the following questions by considering the information above.**

Q32. To what extent would you like to use the Self Service Enhanced Vending Machine for Medications Dissipation to take your prescribed or non-prescribed medications?

a) None b) Little c) Neutral d) Much e) Very Much

Q33: To what extent do you trust the Self-Service Enhanced Vending Machine for Medication Dissipation to take your prescription or non-prescription medicines?

a) None b) Little c) Neutral d) Much e) Very Much

Q34: If you know that it is completely secure and fast, to what extent do you want to use the Self-Service Enhanced Vending Machine for Medication Dissipation which is mostly capable of doing everything pharmacies can do?

a) None b) Little c) Neutral d) Much e) Very Much

Q34a. To what extent do you believe that the Self-Service Enhanced Vending Machine for Medications Dissipation will serve faster than pharmacies?

a) None b) Little c) Neutral d) Much e) Very Much

Q35. If you are sure that this Self-Service Enhanced Vending Machine for Medications Dissipation will reduce your workload and costs (such as employee costs), To what extent would you prefer to integrate the Self Service Advanced Medication Vending Machine into your pharmacy?

a) None b) Little c) Neutral d) Much e) Very Much

Q36. To what extent do you believe that the Self Service Enhanced Vending Machine for Medications Dissipation, which can operate 24/7, can increase your profit?

a) None b) Little c) Neutral d) Much e) Very Much

Q37. To what extent do you trust the Self Service Enhanced Vending Machine for Medications Dissipation to operate without error, considering the current technological developments?

a) None b) Little c) Neutral d) Much e) Very Much

Q38. To what extent do you believe that patients will prefer the Self Service Enhanced Vending Machine for Medications Dissipation for their prescribed / non-prescribed medications or needs instead of pharmacy?

a) None b) Little c) Neutral d) Much e) Very Much

Q39. To what extent do you believe the Self-Service Enhanced Vending Machine for Medications Dissipation can reduce the number of pharmacies and pharmacists in a near future?

a) None b) Little c) Neutral d) Much e) Very Much

Appendix B The Additional and Supportive Tables and Figures

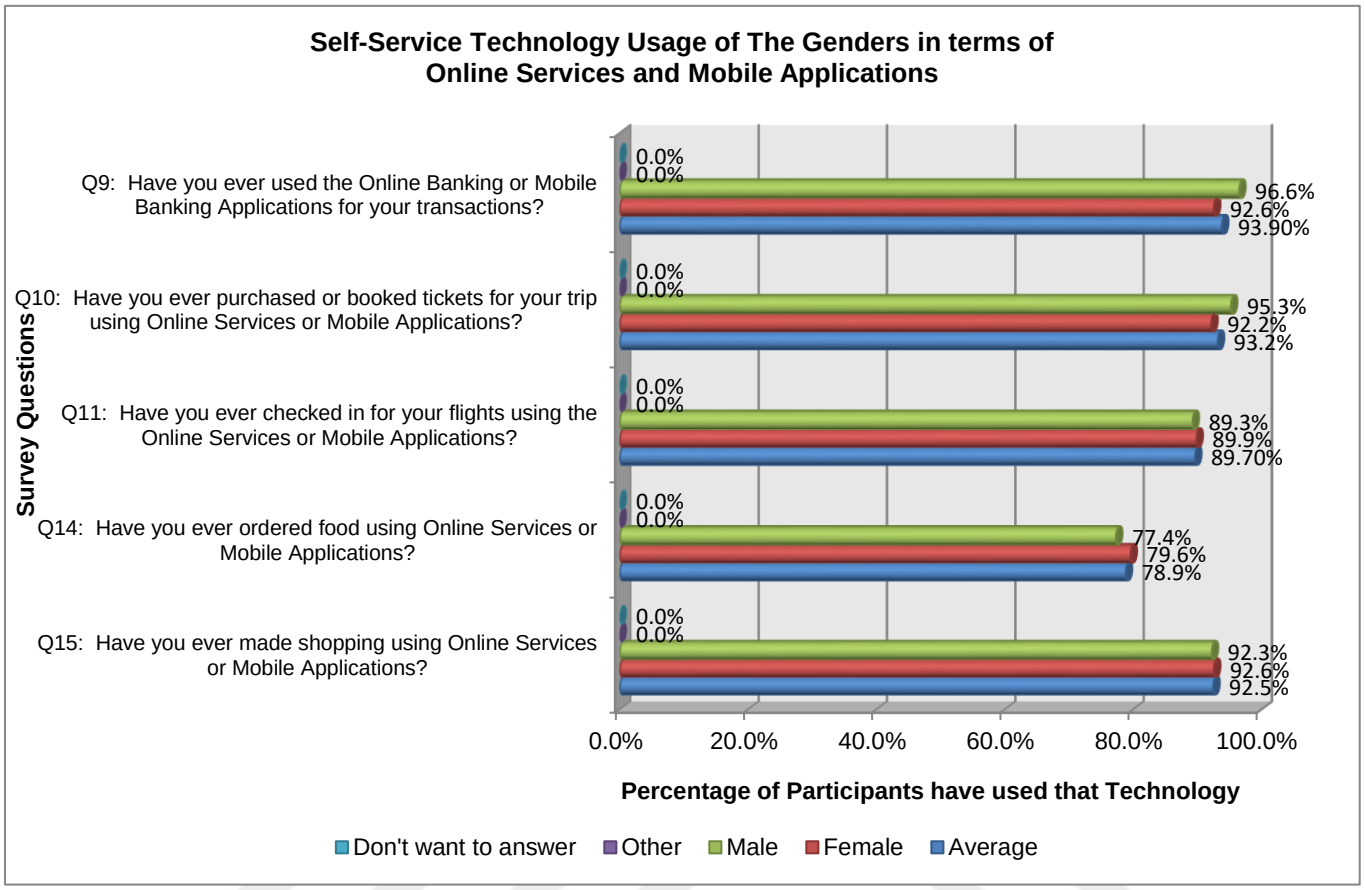

Figure 8.1: Self-Service Technology Usage of The Genders in terms of Online Services and Mobile Applications

		Q1: What is your gender?		
		Total	Female	Male
Q26: To what extent do you prefer to use the Automated Teller Machines(ATMs) instead of the bank branch?	Total Count	710	476	234
	None	15	13	2
	Little	44	25	19
	Neutral	93	54	39
	Much	187	125	62
	Very Much	371	259	112
	None	2,1%	2,7%	0,9%
	Little	6,2%	5,3%	8,1%
	Neutral	13,1%	11,3%	16,7%
	Much	26,3%	26,3%	26,5%
	Very Much	52,3%	54,4%	47,9%

		Q1: What is your gender?		
		Total	Female	Male
Q27: To what extent do you prefer to use the Self-Service Checkout Stations in grocery stores instead of the traditional checkout counter?	Total Count	710	476	234
	None	67	37	30
	Little	201	135	66
	Neutral	218	153	65
	Much	142	94	48
	Very Much	82	57	25
	None	9,4%	7,8%	12,8%
	Little	28,3%	28,4%	28,2%
	Neutral	30,7%	32,1%	27,8%
	Much	20,0%	19,7%	20,5%
	Very Much	11,5%	12,0%	10,7%

Table 8.1: Tendency of Participants to The Self-Service Technologies(SSTs) in terms of Genders

		Q1: What is your gender?		
		Total	Female	Male
Q28: How do you feel while using the Automated Teller Machine(ATM) ?	Total Count	710	476	234
	Very Nervous	4	4	0
	Nervous	55	37	18
	Neutral	282	196	86
	Relax	221	147	74
	Very Relax	148	92	56
	Very Nervous	0,6%	0,8%	0,0%
	Nervous	7,7%	7,8%	7,7%
	Neutral	39,7 %	41,2%	36,8%
	Relax	31,1 %	30,9%	31,6%
	Very Relax	20,8 %	19,3%	23,9%

		Q1: What is your gender?		
		Total	Female	Male
Q29: How do you feel while using the Self-Service Checkout Station in grocery stores?	Total Count	710	476	234
	Very Nervous	10	8	2
	Nervous	109	82	27
	Neutral	338	229	109
	Relax	164	101	63
	Very Relax	89	56	33
	Very Nervous	1,4%	1,7%	0,9%
	Nervous	15,4%	17,2%	11,5%
	Neutral	47,6%	48,1%	46,6%
	Relax	23,1%	21,2%	26,9%
	Very Relax	12,5%	11,8%	14,1%

		Q1: What is your gender?		
		Total	Female	Male
Q30: How do you feel while using the vending machines for buying food/water/ tea/coffee or other reasons?	Total Count	710	476	234
	Very Nervous	8	4	4
	Nervous	48	35	13
	Neutral	324	219	105
	Relax	202	135	67
	Very Relax	128	83	45
	Very Nervous	1,1%	0,8%	1,7%
	Nervous	6,8%	7,4%	5,6%
	Neutral	45,6%	46,0%	44,9%
	Relax	28,5%	28,4%	28,6%
	Very Relax	18,0%	17,4%	19,2%

Table 8.2: Feelings of Participants while Using The Self-Service Technologies(SSTs) in terms of Genders

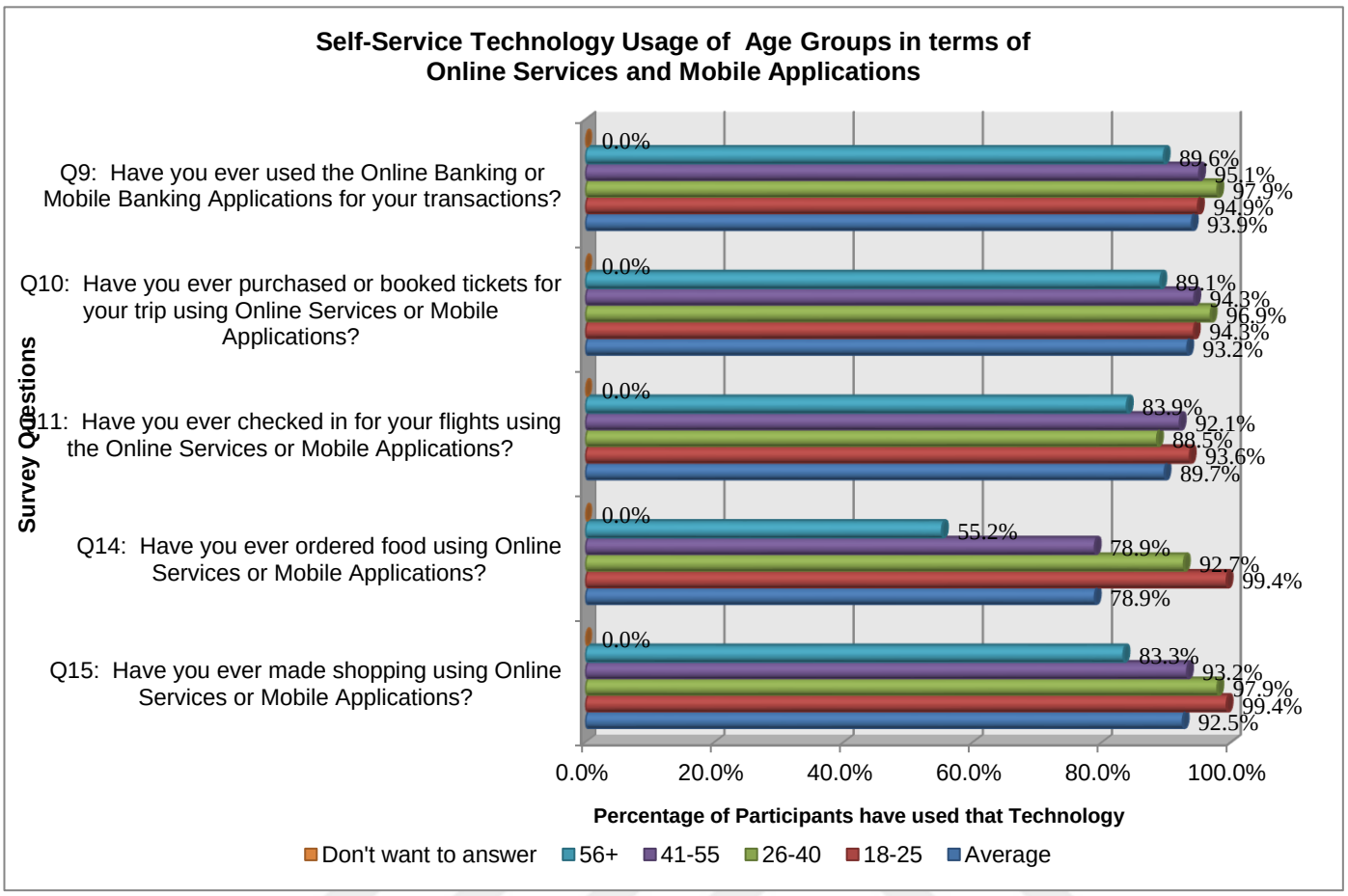

Figure 8.2: Self-Service Technology Usage of The Age Groups in terms of Online Services and Mobile Applications

		Q2: Which age group you are in?				
		Total	18-25	26-40	41-55	56+
Q26: To what extent do you prefer to use the Automated Teller Machines(ATMs) instead of the bank branch?	Total Count	710	157	96	265	192
	None	15	1	3	5	6
	Little	44	10	4	15	15
	Neutral	93	18	15	28	32
	Much	187	29	27	72	59
	Very Much	371	99	47	145	80
	None	2,1%	0,6%	3,1%	1,9%	3,1%
	Little	6,2%	6,4%	4,2%	5,7%	7,8%
	Neutral	13,1%	11,5%	15,6%	10,6%	16,7%
	Much	26,3%	18,5%	28,1%	27,2%	30,7%
	Very Much	52,3%	63,1%	49,0%	54,7%	41,7%

		Q2: Which age group you are in?				
		Total	18-25	26-40	41-55	56+
Q27: To what extent do you prefer to use the Self-Service Checkout Stations in grocery stores instead of the traditional checkout counter?	Total Count	710	157	96	265	192
	None	67	5	7	24	31
	Little	201	25	22	85	69
	Neutral	218	45	32	88	53
	Much	142	44	25	44	29
	Very Much	82	38	10	24	10
	None	9,4%	3,2%	7,3%	9,1%	16,1%
	Little	28,3%	15,9%	22,9%	32,1%	35,9%
	Neutral	30,7%	28,7%	33,3%	33,2%	27,6%
	Much	20,0%	28,0%	26,0%	16,6%	15,1%
	Very Much	11,5%	24,2%	10,4%	9,1%	5,2%

Table 8.3: Tendency of Participants to The Self-Service Technologies(SSTs) in terms of Different Age Groups

		Q2: Which age group you are in?				
		Total	18-25	26-40	41-55	56+
Q28: How do you feel while using the Automated Teller Machine(ATM) ?	Total Count	710	157	96	265	192
	Very Nervous	4	0	1	0	3
	Nervous	55	11	11	17	16
	Neutral	282	61	36	112	73
	Relax	221	50	34	77	60
	Very Relax	148	35	14	59	40
	Very Nervous	0,6%	0,0%	1,0%	0,0%	1,6%
	Nervous	7,7%	7,0%	11,5%	6,4%	8,3%
	Neutral	39,7%	38,9%	37,5%	42,3%	38,0%
	Relax	31,1%	31,8%	35,4%	29,1%	31,3%
	Very Relax	20,8%	22,3%	14,6%	22,3%	20,8%

		Q2: Which age group you are in?				
		Total	18-25	26-40	41-55	56+
Q29: How do you feel while using the Self-Service Checkout Station in grocery stores?	Total Count	710	157	96	265	192
	Very Nervous	10	0	2	3	5
	Nervous	109	16	11	42	40
	Neutral	338	66	44	134	94
	Relax	164	45	25	55	39
	Very Relax	89	30	14	31	14
	Very Nervous	1,4%	0,0%	2,1%	1,1%	2,6%
	Nervous	15,4%	10,2 %	11,5 %	15,8 %	20,8 %
	Neutral	47,6%	42,0 %	45,8 %	50,6 %	49,0 %
	Relax	23,1%	28,7 %	26,0 %	20,8 %	20,3 %
	Very Relax	12,5%	19,1 %	14,6 %	11,7 %	7,3%

		Q2: Which age group you are in?				
		Total	18-25	26-40	41-55	56+
Q30: How do you feel while using the vending machines for buying food/water /tea/coffee or other reasons?	Total Count	710	157	96	265	192
	Very Nervous	8	1	1	2	4
	Nervous	48	5	7	16	20
	Neutral	324	47	37	135	105
	Relax	202	42	35	74	51
	Very Relax	128	62	16	38	12
	Very Nervous	1,1%	0,6%	1,0%	0,8%	2,1%
	Nervous	6,8%	3,2%	7,3%	6,0%	10,4%
	Neutral	45,6%	29,9%	38,5%	50,9%	54,7%
	Relax	28,5%	26,8%	36,5%	27,9%	26,6%
	Very Relax	18,0%	39,5%	16,7%	14,3%	6,3%

Table 8.4: Feelings of Participants while Using The Self-Service Technologies(SSTs) in terms of Different Age Groups

		Q3: What is the last degree you graduated from? > Q4: What is your monthly net income? (If you are a student please choose the first interval)																								
			High School					Bachelor					Master					PhD					Don't want to answer				
		Total	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer
Q26: To what extent do you prefer to use the Automated Teller Machines(ATMs) instead of Bank branch?	Total Count	710	59	22	6	3	8	48	107	124	103	13	15	20	34	66	2	2	3	11	59	3	2	0	0	0	0
	None	15	1	0	0	0	1	2	2	3	2	0	0	1	0	2	0	0	0	0	1	0	0	0	0	0	0
	Little	44	3	2	0	0	0	4	11	9	4	1	1	1	0	3	0	0	0	2	3	0	0	0	0	0	0
	Neutral	93	7	4	1	0	4	3	12	15	18	0	1	3	3	9	1	0	1	1	9	0	1	0	0	0	0
	Much	187	10	5	1	0	2	12	30	35	27	7	2	9	12	15	0	2	0	3	12	3	0	0	0	0	0
	Very Much	371	38	11	4	3	1	27	52	62	52	5	11	6	19	37	1	0	2	5	34	0	1	0	0	0	0
	None	2,1%	1,7%	0,0%	0,0%	0,0%	12,5%	4,2%	1,9%	2,4%	1,9%	0,0%	0,0%	5,0%	0,0%	3,0%	0,0%	0,0%	0,0%	0,0%	1,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Little	6,2%	5,1%	9,1%	0,0%	0,0%	0,0%	8,3%	10,3%	7,3%	3,9%	7,7%	6,7%	5,0%	0,0%	4,5%	0,0%	0,0%	0,0%	18,2%	5,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Neutral	13,1%	11,9%	18,2%	16,7%	0,0%	50,0%	6,3%	11,2%	12,1%	17,5%	0,0%	6,7%	15,0%	8,8%	13,6%	50,0%	0,0%	33,3%	9,1%	15,3%	0,0%	50,0%	0,0%	0,0%	0,0%	0,0%
	Much	26,3%	16,9%	22,7%	16,7%	0,0%	25,0%	25,0%	28,0%	28,2%	26,2%	53,8%	13,3%	45,0%	35,3%	22,7%	0,0%	100,0%	0,0%	27,3%	20,3%	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Very Much	52,3%	64,4%	50,0%	66,7%	100,0%	12,5%	56,3%	48,6%	50,0%	50,5%	38,5%	73,3%	30,0%	55,9%	56,1%	50,0%	0,0%	66,7%	45,5%	57,6%	0,0%	50,0%	0,0%	0,0%	0,0%	0,0%
Q27: To what extent do you prefer to use Self-Service Checkout Stations in grocery stores instead of traditional checkout counter?	Total Count	710	59	22	6	3	8	48	107	124	103	13	15	20	34	66	2	2	3	11	59	3	2	0	0	0	0
	None	67	5	2	0	0	3	1	19	13	9	1	1	0	3	4	0	0	0	1	5	0	0	0	0	0	0
	Little	201	9	3	2	0	0	7	21	40	34	6	4	6	13	23	1	0	0	3	28	0	1	0	0	0	0
	Neutral	218	19	6	1	1	4	20	32	41	26	3	3	9	6	20	1	2	2	4	14	3	1	0	0	0	0
	Much	142	13	9	3	1	0	10	25	21	22	3	2	5	6	13	0	0	1	2	6	0	0	0	0	0	0
	Very Much	82	13	2	0	1	1	10	10	9	12	0	5	0	6	6	0	0	0	1	6	0	0	0	0	0	0
	None	9,4%	8,5%	9,1%	0,0%	0,0%	37,5%	2,1%	17,8%	10,5%	8,7%	7,7%	6,7%	0,0%	8,8%	6,1%	0,0%	0,0%	0,0%	9,1%	8,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Little	28,3%	15,3%	13,6%	33,3%	0,0%	0,0%	14,6%	19,6%	32,3%	33,0%	46,2%	26,7%	30,0%	38,2%	34,8%	50,0%	0,0%	0,0%	27,3%	47,5%	0,0%	50,0%	0,0%	0,0%	0,0%	0,0%
	Neutral	30,7%	32,2%	27,3%	16,7%	33,3%	50,0%	41,7%	29,9%	33,1%	25,2%	23,1%	20,0%	45,0%	17,6%	30,3%	50,0%	100,0%	66,7%	36,4%	23,7%	100,0%	50,0%	0,0%	0,0%	0,0%	0,0%
	Much	20,0%	22,0%	40,9%	50,0%	33,3%	0,0%	20,8%	23,4%	16,9%	21,4%	23,1%	13,3%	25,0%	17,6%	19,7%	0,0%	0,0%	33,3%	18,2%	10,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Very Much	11,5%	22,0%	9,1%	0,0%	33,3%	12,5%	20,8%	9,3%	7,3%	11,7%	0,0%	33,3%	0,0%	17,6%	9,1%	0,0%	0,0%	0,0%	9,1%	10,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%

Table 8.5: Tendency of Participants to The Self-Service Technologies(SSTs) in terms of Education Level and Economic Conditions

		Q3: What is the last degree you graduated from? > Q4: What is your monthly net income? (If you are a student please choose the first interval)																								
			High School					Bachelor					Master					PhD					Don't want to answer				
		Total	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer
Q7: Have you ever used the Automated Teller Machine(ATM)?	**Total Count**	710	59	22	6	3	8	48	107	124	103	13	15	20	34	66	2	2	3	11	59	3	2	0	0	0	0
	Yes	701	57	22	6	3	8	48	106	123	101	13	15	19	34	65	2	2	3	11	58	3	2	0	0	0	0
	No	9	2	0	0	0	0	0	1	1	2	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0
	Yes	98,7%	96,6%	100,0%	100,0%	100,0%	100,0%	100,0%	99,1%	99,2%	98,1%	100,0%	100,0%	95,0%	100,0%	98,5%	100,0%	100,0%	100,0%	100,0%	98,3 %	100,0%	100,0%	0,0%	0,0%	0,0 %	0,0%
	No	1,3%	3,4%	0,0%	0,0%	0,0%	0,0%	0,0%	0,9%	0,8%	1,9%	0,0%	0,0%	5,0%	0,0%	1,5%	0,0%	0,0%	0,0%	0,0%	1,7%	0,0%	0,0%	0,0%	0,0%	0,0 %	0,0%
Q12: Have you ever used the Self-Service Checkout Station in grocery stores?	**Total Count**	710	59	22	6	3	8	48	107	124	103	13	15	20	34	66	2	2	3	11	59	3	2	0	0	0	0
	Yes	576	48	17	5	3	5	42	78	100	87	12	14	16	26	53	2	2	2	9	51	2	2	0	0	0	0
	No	134	11	5	1	0	3	6	29	24	16	1	1	4	8	13	0	0	1	2	8	1	0	0	0	0	0
	Yes	81,1%	81,4%	77,3%	83,3%	100,0%	62,5%	87,5%	72,9%	80,6%	84,5%	92,3%	93,3%	80,0%	76,5%	80,3%	100,0%	100,0%	66,7%	81,8%	86,4 %	66,7%	100,0%	0,0%	0,0%	0,0 %	0,0%
	No	18,9%	18,6%	22,7%	16,7%	0,0%	37,5%	12,5%	27,1%	19,4%	15,5%	7,7%	6,7%	20,0%	23,5%	19,7%	0,0%	0,0%	33,3%	18,2%	13,6 %	33,3%	0,0%	0,0%	0,0%	0,0 %	0,0%
Q16: Have you ever used the Vending Machines for buying food/water/tea/ coffee or other reasons?	**Total Count**	710	59	22	6	3	8	48	107	124	103	13	15	20	34	66	2	2	3	11	59	3	2	0	0	0	0
	Yes	611	54	16	5	3	6	43	86	99	91	11	15	17	30	60	2	2	1	11	54	3	2	0	0	0	0
	No	99	5	6	1	0	2	5	21	25	12	2	0	3	4	6	0	0	2	0	5	0	0	0	0	0	0
	Yes	86,1%	91,5%	72,7%	83,3%	100,0%	75,0%	89,6%	80,4%	79,8%	88,3%	84,6%	100,0%	85,0%	88,2%	90,9%	100,0%	100,0%	33,3%	100,0%	91,5 %	100,0%	100,0%	0,0%	0,0%	0,0 %	0,0%
	No	13,9%	8,5%	27,3%	16,7%	0,0%	25,0%	10,4%	19,6%	20,2%	11,7%	15,4%	0,0%	15,0%	11,8%	9,1%	0,0%	0,0%	66,7%	0,0%	8,5%	0,0%	0,0%	0,0%	0,0%	0,0 %	0,0%

Table 8.6: Familiarity of Participants to Self-Service Technologies(SSTs) in terms of Education Level and Economic Conditions

		Q3: What is the last degree you graduated from? > Q4: What is your monthly net income? (If you are a student please choose the first interval)																								
			High School					Bachelor					Master					PhD					Don't want to answer				
		Total	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer	0-2499 TL	2500-4999 TL	5000-7499 TL	7500 + TL	Don't want to answer
Q28: How do you feel while using the Automated Teller Machine(ATM)?	Total Count	710	59	22	6	3	8	48	107	124	103	13	15	20	34	66	2	2	3	11	59	3	2	0	0	0	0
	Very Nervous	4	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Nervous	55	7	2	0	0	2	1	7	8	11	1	2	2	0	7	0	0	0	1	4	0	0	0	0	0	0
	Neutral	282	23	4	3	0	5	18	48	47	35	9	6	8	14	23	2	1	1	7	24	3	1	0	0	0	0
	Relax	221	12	10	3	1	1	21	33	44	35	3	4	7	12	14	0	1	1	1	17	0	1	0	0	0	0
	Very Relax	148	17	6	0	2	0	7	18	23	22	0	3	3	8	22	0	0	1	2	14	0	0	0	0	0	0
	Very Nervous	0,6%	0,0%	0,0%	0,0%	0,0%	0,0%	2,1%	0,9%	1,6%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Nervous	7,7%	11,9%	9,1%	0,0%	0,0%	25,0%	2,1%	6,5%	6,5%	10,7%	7,7%	13,3%	10,0%	0,0%	10,6%	0,0%	0,0%	0,0%	9,1%	6,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Neutral	39,7%	39,0%	18,2%	50,0%	0,0%	62,5%	37,5%	44,9%	37,9%	34,0%	69,2%	40,0%	40,0%	41,2%	34,8%	100,0%	50,0%	33,3%	63,6%	40,7%	100,0%	50,0%	0,0%	0,0%	0,0%	0,0%
	Relax	31,1%	20,3%	45,5%	50,0%	33,3%	12,5%	43,8%	30,8%	35,5%	34,0%	23,1%	26,7%	35,0%	35,3%	21,2%	0,0%	50,0%	33,3%	9,1%	28,8%	0,0%	50,0%	0,0%	0,0%	0,0%	0,0%
	Very Relax	20,8%	28,8%	27,3%	0,0%	66,7%	0,0%	14,6%	16,8%	18,5%	21,4%	0,0%	20,0%	15,0%	23,5%	33,3%	0,0%	0,0%	33,3%	18,2%	23,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Q29: How do you feel while using the Self-Service Checkout Station in grocery stores?	Total Count	710	59	22	6	3	8	48	107	124	103	13	15	20	34	66	2	2	3	11	59	3	2	0	0	0	0
	Very Nervous	10	0	0	0	0	0	1	3	3	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
	Nervous	109	6	0	1	0	1	7	15	20	19	0	3	5	4	11	0	1	0	3	12	1	0	0	0	0	0
	Neutral	338	30	10	2	0	6	19	54	64	42	9	7	8	16	29	2	1	1	6	29	2	1	0	0	0	0
	Relax	164	13	8	3	2	1	11	21	25	30	3	3	6	12	10	0	0	1	2	12	0	1	0	0	0	0
	Very Relax	89	10	4	0	1	0	10	14	12	11	1	2	1	2	15	0	0	1	0	5	0	0	0	0	0	0
	Very Nervous	1,4%	0,0%	0,0%	0,0%	0,0%	0,0%	2,1%	2,8%	2,4%	1,0%	0,0%	0,0%	0,0%	0,0%	1,5%	0,0%	0,0%	0,0%	0,0%	1,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Nervous	15,4%	10,2%	0,0%	16,7%	0,0%	12,5%	14,6%	14,0%	16,1%	18,4%	0,0%	20,0%	25,0%	11,8%	16,7%	0,0%	50,0%	0,0%	27,3%	20,3%	33,3%	0,0%	0,0%	0,0%	0,0%	0,0%
	Neutral	47,6%	50,8%	45,5%	33,3%	0,0%	75,0%	39,6%	50,5%	51,6%	40,8%	69,2%	46,7%	40,0%	47,1%	43,9%	100,0%	50,0%	33,3%	54,5%	49,2%	66,7%	50,0%	0,0%	0,0%	0,0%	0,0%
	Relax	23,1%	22,0%	36,4%	50,0%	66,7%	12,5%	22,9%	19,6%	20,2%	29,1%	23,1%	20,0%	30,0%	35,3%	15,2%	0,0%	0,0%	33,3%	18,2%	20,3%	0,0%	50,0%	0,0%	0,0%	0,0%	0,0%
	Very Relax	12,5%	16,9%	18,2%	0,0%	33,3%	0,0%	20,8%	13,1%	9,7%	10,7%	7,7%	13,3%	5,0%	5,9%	22,7%	0,0%	0,0%	33,3%	0,0%	8,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%

Q30: How do you feel while using the vending machines for buying food/water/tea/coffee or other reasons?	**Total Count**	710	59	22	6	3	8	48	107	124	103	13	15	20	34	66	2	2	3	11	59	3	2	0	0	0	0
	Very Nervous	8	2	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Nervous	48	1	1	0	0	0	1	12	12	10	0	0	1	2	6	0	0	0	1	1	0	0	0	0	0	0
	Neutral	324	17	10	4	1	7	15	47	61	45	9	8	9	16	29	2	2	0	8	30	3	1	0	0	0	0
	Relax	202	17	4	1	1	0	15	37	33	31	4	2	7	10	15	0	0	3	2	19	0	1	0	0	0	0
	Very Relax	128	22	7	1	1	1	16	9	15	17	0	5	3	6	16	0	0	0	0	9	0	0	0	0	0	0
	Very Nervous	1,1%	3,4%	0,0%	0,0%	0,0%	0,0%	2,1%	1,9%	2,4%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Nervous	6,8%	1,7%	4,5%	0,0%	0,0%	0,0%	2,1%	11,2%	9,7%	9,7%	0,0%	0,0%	5,0%	5,9%	9,1%	0,0%	0,0%	0,0%	9,1%	1,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Neutral	45,6%	28,8%	45,5%	66,7%	33,3%	87,5%	31,3%	43,9%	49,2%	43,7%	69,2%	53,3%	45,0%	47,1%	43,9%	100,0%	100,0%	0,0%	72,7%	50,8%	100,0%	50,0%	0,0%	0,0%	0,0%	0,0%
	Relax	28,5%	28,8%	18,2%	16,7%	33,3%	0,0%	31,3%	34,6%	26,6%	30,1%	30,8%	13,3%	35,0%	29,4%	22,7%	0,0%	0,0%	100,0%	18,2%	32,2%	0,0%	50,0%	0,0%	0,0%	0,0%	0,0%
	Very Relax	18,0%	37,3%	31,8%	16,7%	33,3%	12,5%	33,3%	8,4%	12,1%	16,5%	0,0%	33,3%	15,0%	17,6%	24,2%	0,0%	0,0%	0,0%	0,0%	15,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%

Table 8.7: Feelings of Participants while Using The Self-Service Technologies(SSTs) in terms of Education Level and Economic Conditions

		Q8: In normal circumstances, How often do you use the Automated Teller Machine(ATM)?							Q13: In normal circumstances, How often do you use self-service checkout stations in grocery stores?							Q17: In normal circumstances, How often do you use the vending machines for buying food/water/tea/coffee or other reasons?						
		Total	Once a week	More than Once a Week	Once a Month	More than Once a Month	Once in 2-3 Months	1-2 Times a Year	**Total**	Once a week	More than Once a Week	Once a Month	More than Once a Month	Once in 2-3 Months	1-2 Times a Year	**Total**	Once a week	More than Once a Week	Once a Month	More than Once a Month	Once in 2-3 Months	1-2 Times a Year
Q33: To what extent do you trust the Self-Service Enhanced Vending Machine for Medication Dissipation to take your prescription or non-prescription medicines?	**Total Count**	701	170	143	120	167	69	32	576	81	76	89	78	136	116	611	50	81	77	56	144	203
	None	58	8	18	9	10	7	6	37	5	4	4	5	10	9	38	4	3	4	2	12	13
	Little	98	19	24	19	16	14	6	81	8	6	13	8	24	22	87	8	12	11	2	19	35
	Neutral	279	74	54	44	74	23	10	229	31	24	35	34	51	54	243	21	28	27	23	54	90
	Much	214	60	36	36	56	17	9	179	28	28	34	27	39	23	196	13	25	29	24	52	53
	Very Much	52	9	11	12	11	8	1	50	9	14	3	4	12	8	47	4	13	6	5	7	12
	None	8,3%	4,7%	12,6%	7,5%	6,0%	10,1%	18,8%	6,4%	6,2%	5,3%	4,5%	6,4%	7,4%	7,8%	6,2%	8,0%	3,7%	5,2%	3,6%	8,3%	6,4%
	Little	14,0 %	11,2%	16,8%	15,8%	9,6%	20,3%	18,8%	14,1 %	9,9%	7,9%	14,6%	10,3%	17,6%	19,0%	14,2%	16,0 %	14,8%	14,3%	3,6%	13,2%	17,2%
	Neutral	39,8 %	43,5%	37,8%	36,7%	44,3%	33,3%	31,3%	39,8 %	38,3 %	31,6%	39,3%	43,6%	37,5%	46,6%	39,8%	42,0 %	34,6%	35,1%	41,1%	37,5%	44,3%
	Much	30,5 %	35,3%	25,2%	30,0%	33,5%	24,6%	28,1%	31,1 %	34,6 %	36,8%	38,2%	34,6%	28,7%	19,8%	32,1%	26,0 %	30,9%	37,7%	42,9%	36,1%	26,1%
	Very Much	7,4%	5,3%	7,7%	10,0%	6,6%	11,6%	3,1%	8,7%	11,1 %	18,4%	3,4%	5,1%	8,8%	6,9%	7,7%	8,0%	16,0%	7,8%	8,9%	4,9%	5,9%
	Overall Stat Test of Percentages	**0.08731**							**0.00037**							**0.00028**						
	Average	3,1	3,3	3,0	3,2	3,3	3,1	2,8	3,2	3,3	3,6	3,2	3,2	3,1	3,0	3,2	3,1	3,4	3,3	3,5	3,2	3,1
	Median	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	4,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	4,0	3,0	3,0
	Standard Deviation	1,0	0,9	1,1	1,1	0,9	1,2	1,2	1,0	1,0	1,1	0,9	0,9	1,0	1,0	1,0	1,0	1,0	1,0	0,9	1,0	1,0

Q34: If you know that it is completely secure and fast, to what extent do you want to use the Self-Service Enhanced Vending Machine for Medication Dissipation which is mostly capable of doing everything pharmacies can do?	**Total Count**	701	170	143	120	167	69	32	576	81	76	89	78	136	116	611	50	81	77	56	144	203
	None	49	9	11	7	9	7	6	33	5	5	3	4	7	9	31	2	1	2	1	11	14
	Little	68	14	20	14	8	7	5	53	4	5	12	4	15	13	59	7	5	8	1	13	25
	Neutral	164	45	36	27	31	19	6	123	17	15	19	18	27	27	136	9	21	17	10	27	52
	Much	283	73	50	44	83	21	12	239	34	26	41	34	56	48	256	21	31	31	28	62	83
	Very Much	137	29	26	28	36	15	3	128	21	25	14	18	31	19	129	11	23	19	16	31	29
	None	7,0%	5,3%	7,7%	5,8%	5,4%	10,1%	18,8%	5,7%	6,2%	6,6%	3,4%	5,1%	5,1%	7,8%	5,1%	4,0%	1,2%	2,6%	1,8%	7,6%	6,9%
	Little	9,7%	8,2%	14,0%	11,7%	4,8%	10,1%	15,6%	9,2%	4,9%	6,6%	13,5%	5,1%	11,0%	11,2%	9,7%	14,0%	6,2%	10,4%	1,8%	9,0%	12,3%
	Neutral	23,4%	26,5%	25,2%	22,5%	18,6%	27,5%	18,8%	21,4%	21,0%	19,7%	21,3%	23,1%	19,9%	23,3%	22,3%	18,0%	25,9%	22,1%	17,9%	18,8%	25,6%
	Much	40,4%	42,9%	35,0%	36,7%	49,7%	30,4%	37,5%	41,5%	42,0%	34,2%	46,1%	43,6%	41,2%	41,4%	41,9%	42,0%	38,3%	40,3%	50,0%	43,1%	40,9%
	Very Much	19,5%	17,1%	18,2%	23,3%	21,6%	21,7%	9,4%	22,2%	25,9%	32,9%	15,7%	23,1%	22,8%	16,4%	21,1%	22,0%	28,4%	24,7%	28,6%	21,5%	14,3%
	Overall Stat Test of Percentages	**0.06030**							**0.00730**							**0.00007**						
	Average	3,6	3,6	3,4	3,6	3,8	3,4	3,0	3,7	3,8	3,8	3,6	3,7	3,7	3,5	3,6	3,6	3,9	3,7	4,0	3,6	3,4
	Median	4,0	4,0	4,0	4,0	4,0	4,0	3,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0
	Standard Deviation	1,1	1,0	1,2	1,1	1,0	1,2	1,3	1,1	1,1	1,2	1,0	1,0	1,1	1,1	1,1	1,1	0,9	1,0	0,8	1,1	1,1

Table 8.8: Tendency of Participants to Enhanced Vending Machine for Medications Dissipation in terms of Experience of Self-Service Technology(SST) I

		Q9: Have you ever used the Online Banking or Mobile Banking Applications for your transactions?			Q10: Have you ever purchased or booked tickets for your trip using the Online Services or Mobile Applications?			Q11: Have you ever checked in for your flights using the Online Services or Mobile Applications?			Q14: Have you ever ordered food using the Online Services or Mobile Applications?			Q15: Have you ever made shopping using the Online Services or Mobile Applications?		
		Total	Yes	No	**Total**	Yes	No	**Total**	Yes	No	**Total**	Yes	No	**Total**	Yes	No
Q33: To what extent do you trust the Self-Service Enhanced Vending Machine for Medication Dissipation to take your prescription or non-prescription medicines?	**Total Count**	710	667	43	710	662	48	710	637	73	710	560	150	710	657	53
	None	59	52	7	59	48	11	59	47	12	59	33	26	59	46	13
	Little	101	91	10	101	93	8	101	89	12	101	80	21	101	91	10
	Neutral	282	264	18	282	261	21	282	251	31	282	222	60	282	266	16
	Much	215	209	6	215	208	7	215	200	15	215	179	36	215	205	10
	Very Much	53	51	2	53	52	1	53	50	3	53	46	7	53	49	4
	None	8,3%	7,8%	16,3 %	8,3%	7,3%	22,9 %	8,3%	7,4%	16,4 %	8,3%	5,9%	17,3 %	8,3%	7,0%	24,5 %
	Little	14,2 %	13,6%	23,3 %	14,2%	14,0 %	16,7 %	14,2 %	14,0 %	16,4 %	14,2 %	14,3 %	14,0 %	14,2 %	13,9 %	18,9 %
	Neutral	39,7 %	39,6%	41,9 %	39,7%	39,4 %	43,8 %	39,7 %	39,4 %	42,5 %	39,7 %	39,6 %	40,0 %	39,7 %	40,5 %	30,2 %
	Much	30,3 %	31,3%	14,0 %	30,3%	31,4 %	14,6 %	30,3 %	31,4 %	20,5 %	30,3 %	32,0 %	24,0 %	30,3 %	31,2 %	18,9 %
	Very Much	7,5%	7,6%	4,7%	7,5%	7,9%	2,1%	7,5%	7,8%	4,1%	7,5%	8,2%	4,7%	7,5%	7,5%	7,5%
	Overall Stat Test of Percentages	**0.03027**			**0.00054**			**0.03044**			**0.00012**			**0.00014**		
	Average	3,1	3,2	2,7	3,1	3,2	2,6	3,1	3,2	2,8	3,1	3,2	2,8	3,1	3,2	2,7
	Median	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0
	Standard Deviation	1,0	1,0	1,1	1,0	1,0	1,1	1,0	1,0	1,1	1,0	1,0	1,1	1,0	1,0	1,3
Q34: If you know that it is completely secure and fast, to what extent do you want to use the Self-Service Enhanced Vending Machine for Medication Dissipation which is mostly capable of doing everything pharmacies can do?	**Total Count**	710	667	43	710	662	48	710	637	73	710	560	150	710	657	53
	None	49	43	6	49	39	10	49	38	11	49	27	22	49	37	12
	Little	68	62	6	68	63	5	68	62	6	68	48	20	68	63	5
	Neutral	168	155	13	168	153	15	168	151	17	168	127	41	168	154	14
	Much	286	273	13	286	271	15	286	253	33	286	232	54	286	268	18
	Very Much	139	134	5	139	136	3	139	133	6	139	126	13	139	135	4
	None	6,9%	6,4%	14,0 %	6,9%	5,9%	20,8 %	6,9%	6,0%	15,1 %	6,9%	4,8%	14,7 %	6,9%	5,6%	22,6 %
	Little	9,6%	9,3%	14,0 %	9,6%	9,5%	10,4 %	9,6%	9,7%	8,2%	9,6%	8,6%	13,3 %	9,6%	9,6%	9,4%
	Neutral	23,7 %	23,2%	30,2 %	23,7%	23,1 %	31,3 %	23,7 %	23,7 %	23,3 %	23,7 %	22,7 %	27,3 %	23,7 %	23,4 %	26,4 %
	Much	40,3 %	40,9%	30,2 %	40,3%	40,9 %	31,3 %	40,3 %	39,7 %	45,2 %	40,3 %	41,4 %	36,0 %	40,3 %	40,8 %	34,0 %
	Very Much	19,6 %	20,1%	11,6 %	19,6%	20,5 %	6,3%	19,6 %	20,9 %	8,2%	19,6 %	22,5 %	8,7%	19,6 %	20,5 %	7,5%
	Overall Stat Test of Percentages	**0.10429**			**0.00025**			**0.00770**			**<0,00001**			**0.00004**		
	Average	3,6	3,6	3,1	3,6	3,6	2,9	3,6	3,6	3,2	3,6	3,7	3,1	3,6	3,6	2,9
	Median	4,0	4,0	3,0	4,0	4,0	3,0	4,0	4,0	4,0	4,0	4,0	3,0	4,0	4,0	3,0
	Standard Deviation	1,1	1,1	1,2	1,1	1,1	1,2	1,1	1,1	1,2	1,1	1,1	1,2	1,1	1,1	1,3

Table 8.9: Tendency of Participants to Enhanced Vending Machine for Medications Dissipation in terms of Experience of Self-Service Technology(SST) II

		Q28: How do you feel while using the Automated Teller Machine(ATM)?						Q29: How do you feel while using the Self-Service Checkout Station in grocery stores?						Q30: How do you feel while using the vending machines for buying food/water/tea/coffee or other reasons?					
		Total	Very Nervous	Nervous	Neutral	Relax	Very Relax	**Total**	Very Nervous	Nervous	Neutral	Relax	Very Relax	**Total**	Very Nervous	Nervous	Neutral	Relax	Very Relax
Q33: To what extent do you trust the Self-Service Enhanced Vending Machine for Medication Dissipation to take your prescription or non-prescription medicines?	**Total Count**	710	4	55	282	221	148	710	10	109	338	164	89	710	8	48	324	202	128
	None	59	2	5	33	13	6	59	2	17	29	4	7	59	4	8	35	6	6
	Little	101	2	10	50	22	17	101	3	23	50	18	7	101	1	13	51	27	9
	Neutral	282	0	27	127	86	42	282	4	43	153	62	20	282	1	19	150	74	38
	Much	215	0	12	63	87	53	215	1	20	94	70	30	215	2	8	73	86	46
	Very Much	53	0	1	9	13	30	53	0	6	12	10	25	53	0	0	15	9	29
	None	8,3%	50,0%	9,1%	11,7%	5,9%	4,1%	8,3%	20,0%	15,6%	8,6%	2,4%	7,9%	8,3%	50,0%	16,7%	10,8%	3,0%	4,7%
	Little	14,2%	50,0%	18,2%	17,7%	10,0%	11,5%	14,2%	30,0%	21,1%	14,8%	11,0%	7,9%	14,2%	12,5%	27,1%	15,7%	13,4%	7,0%
	Neutral	39,7%	0,0%	49,1%	45,0%	38,9%	28,4%	39,7%	40,0%	39,4%	45,3%	37,8%	22,5%	39,7%	12,5%	39,6%	46,3%	36,6%	29,7%
	Much	30,3%	0,0%	21,8%	22,3%	39,4%	35,8%	30,3%	10,0%	18,3%	27,8%	42,7%	33,7%	30,3%	25,0%	16,7%	22,5%	42,6%	35,9%
	Very Much	7,5%	0,0%	1,8%	3,2%	5,9%	20,3%	7,5%	0,0%	5,5%	3,6%	6,1%	28,1%	7,5%	0,0%	0,0%	4,6%	4,5%	22,7%
	Overall Stat Test of Percentages	**<0,00001**						**<0,00001**						**<0,00001**					
	Average	3,1	1,5	2,9	2,9	3,3	3,6	3,1	2,4	2,8	3,0	3,4	3,7	3,1	2,1	2,6	2,9	3,3	3,6
	Median	3,0	1,5	3,0	3,0	3,0	4,0	3,0	2,5	3,0	3,0	3,0	4,0	3,0	1,5	3,0	3,0	3,0	4,0
	Standard Deviation	1,0	0,6	0,9	1,0	0,9	1,1	1,0	1,0	1,1	1,0	0,9	1,2	1,0	1,4	1,0	1,0	0,9	1,1
Q34: If you know	**Total Count**	710	4	55	282	221	148	710	10	109	338	164	89	710	8	48	324	202	128

that it is completely secure and fast, to what extent do you want to use the Self-Service Enhanced Vending Machine for Medication Dissipation which is mostly capable of doing everything pharmacies can do?																		
	None	49	0	5	29	9	6	49	1	15	24	4	5	49	2	7	31	5	4
	Little	68	2	7	38	12	9	68	3	15	37	9	4	68	0	8	46	10	4
	Neutral	168	1	22	73	47	25	168	2	29	99	28	10	168	4	16	88	40	20
	Much	286	1	17	102	107	59	286	4	32	132	89	29	286	1	13	117	107	48
	Very Much	139	0	4	40	46	49	139	0	18	46	34	41	139	1	4	42	40	52
	None	6,9%	0,0%	9,1%	10,3%	4,1%	4,1%	6,9%	10,0%	13,8%	7,1%	2,4%	5,6%	6,9%	25,0%	14,6%	9,6%	2,5%	3,1%
	Little	9,6%	50,0%	12,7%	13,5%	5,4%	6,1%	9,6%	30,0%	13,8%	10,9%	5,5%	4,5%	9,6%	0,0%	16,7%	14,2%	5,0%	3,1%
	Neutral	23,7%	25,0%	40,0%	25,9%	21,3%	16,9%	23,7%	20,0%	26,6%	29,3%	17,1%	11,2%	23,7%	50,0%	33,3%	27,2%	19,8%	15,6%
	Much	40,3%	25,0%	30,9%	36,2%	48,4%	39,9%	40,3%	40,0%	29,4%	39,1%	54,3%	32,6%	40,3%	12,5%	27,1%	36,1%	53,0%	37,5%
	Very Much	19,6%	0,0%	7,3%	14,2%	20,8%	33,1%	19,6%	0,0%	16,5%	13,6%	20,7%	46,1%	19,6%	12,5%	8,3%	13,0%	19,8%	40,6%
	Overall Stat Test of Percentages	**<0,00001**						**<0,00001**						**<0,00001**					
	Average	3,6	2,8	3,1	3,3	3,8	3,9	3,6	2,9	3,2	3,4	3,9	4,1	3,6	2,9	3,0	3,3	3,8	4,1
	Median	4,0	2,5	3,0	4,0	4,0	4,0	4,0	3,0	3,0	4,0	4,0	4,0	4,0	3,0	3,0	3,0	4,0	4,0
	Standard Deviation	1,1	1,0	1,0	1,2	1,0	1,1	1,1	1,1	1,3	1,1	0,9	1,1	1,1	1,4	1,2	1,2	0,9	1,0

Table 8.10: Tendency of Participants to Enhanced Vending Machine for Medications Dissipation in terms of Experience of Self-Service Technology(SST) III

		Q5: Are you a Pharmacist?			Q6: Are you a Pharmacist who has own pharmacy?		
		Total	Yes	No	Total	Yes	No
Q28: How do you feel while using the Automated Teller Machine(ATM) ?	Total Count	710	68	642	68	48	20
	None	4	2	2	2	2	0
	Little	55	8	47	8	8	0
	Neutral	282	29	253	29	21	8
	Much	221	19	202	19	12	7
	Very Much	148	10	138	10	5	5
	None	0,6%	2,9%	0,3%	2,9%	4,2%	0,0%
	Little	7,7%	11,8%	7,3%	11,8%	16,7%	0,0%
	Neutral	39,7%	42,6%	39,4 %	42,6%	43,8%	40,0%
	Much	31,1%	27,9%	31,5 %	27,9%	25,0%	35,0%
	Very Much	20,8%	14,7%	21,5 %	14,7%	10,4%	25,0%
	Overall Stat Test of Percentages	**0.02792**			**0.00449**		
	Average	3,6	3,4	3,7	3,4	3,2	3,9
	Median	4,0	3,0	4,0	3,0	3,0	4,0
	Standard Deviation	0,9	1,0	0,9	1,0	1,0	0,8
Q29: How do you feel while using the Self-Service Checkout Station in grocery stores?	Total Count	710	68	642	68	48	20
	None	10	4	6	4	3	1
	Little	109	12	97	12	10	2
	Neutral	338	34	304	34	22	12
	Much	164	14	150	14	9	5
	Very Much	89	4	85	4	4	0
	None	1,4%	5,9%	0,9%	5,9%	6,3%	5,0%
	Little	15,4%	17,6%	15,1 %	17,6%	20,8%	10,0%
	Neutral	47,6%	50,0%	47,4 %	50,0%	45,8%	60,0%
	Much	23,1%	20,6%	23,4 %	20,6%	18,8%	25,0%
	Very Much	12,5%	5,9%	13,2 %	5,9%	8,3%	0,0%
	Overall Stat Test of Percentages	**0.00763**			**0.03284**		
	Average	3,3	3,0	3,3	3,0	3,0	3,1
	Median	3,0	3,0	3,0	3,0	3,0	3,0
	Standard Deviation	0,9	0,9	0,9	0,9	1,0	0,8

		Q5: Are you a Pharmacist?			Q6: Are you a Pharmacist who has own pharmacy?		
		Total	Yes	No	Total	Yes	No
Q30: How do you feel while using the vending machines for buying food/water/tea /coffee or other reasons?	Total Count	710	68	642	68	48	20
	None	8	3	5	3	3	0
	Little	48	5	43	5	4	1
	Neutral	324	40	284	40	27	13
	Much	202	15	187	15	10	5
	Very Much	128	5	123	5	4	1
	None	1,1%	4,4%	0,8%	4,4%	6,3%	0,0%
	Little	6,8%	7,4%	6,7%	7,4%	8,3%	5,0%
	Neutral	45,6 %	58,8 %	44,2 %	58,8%	56,3 %	65,0%
	Much	28,5 %	22,1 %	29,1 %	22,1%	20,8 %	25,0%
	Very Much	18,0 %	7,4%	19,2 %	7,4%	8,3%	5,0%
	Overall Stat Test of Percentages	**0.00310**			**0.00598**		
	Average	3,6	3,2	3,6	3,2	3,2	3,3
	Median	3,0	3,0	3,0	3,0	3,0	3,0
	Standard Deviation	0,9	0,9	0,9	0,9	0,9	0,7

Table 8.11: Feelings of Pharmacists while Using The Self-Service Technologies(SSTs)

		Q5: Are you a Pharmacist?			Q6: Are you a Pharmacist who has own pharmacy?		
		Total	Yes	No	**Total**	Yes	No
Q26: To what extent do you prefer to use the Automated Teller Machines(ATMs) instead of the bank branch?	**Total Count**	710	68	642	68	48	20
	None	15	5	10	5	5	0
	Little	44	9	35	9	7	2
	Neutral	93	19	74	19	16	3
	Much	187	23	164	23	15	8
	Very Much	371	12	359	12	5	7
	None	2,1%	7,4%	1,6%	7,4%	10,4%	0,0%
	Little	6,2%	13,2%	5,5%	13,2%	14,6%	10,0%
	Neutral	13,1%	27,9%	11,5%	27,9%	33,3%	15,0%
	Much	26,3%	33,8%	25,5%	33,8%	31,3%	40,0%
	Very Much	52,3%	17,6%	55,9%	17,6%	10,4%	35,0%
	Overall Stat Test of Percentages	**<0,00001**			**<0,00001**		
	Average	4,2	3,4	4,3	3,4	3,2	4,0
	Median	5,0	4,0	5,0	4,0	3,0	4,0
	Standard Deviation	1,0	1,1	1,0	1,1	1,1	1,0
Q27: To what extent do you prefer to use the Self-Service Checkout Stations in grocery stores instead of the traditional checkout counter?	**Total Count**	710	68	642	68	48	20
	None	67	12	55	12	9	3
	Little	201	25	176	25	20	5
	Neutral	218	17	201	17	12	5
	Much	142	10	132	10	3	7
	Very Much	82	4	78	4	4	0
	None	9,4%	17,6%	8,6%	17,6%	18,8%	15,0%
	Little	28,3%	36,8%	27,4%	36,8%	41,7%	25,0%
	Neutral	30,7%	25,0%	31,3%	25,0%	25,0%	25,0%
	Much	20,0%	14,7%	20,6%	14,7%	6,3%	35,0%
	Very Much	11,5%	5,9%	12,1%	5,9%	8,3%	0,0%
	Overall Stat Test of Percentages	**0.02427**			**0.01244**		
	Average	3,0	2,5	3,0	2,5	2,4	2,8
	Median	3,0	2,0	3,0	2,0	2,0	3,0
	Standard Deviation	1,2	1,1	1,1	1,1	1,1	1,1

Table8.12: Tendency of Pharmacists to The Self-Service Technologies(SSTs)

		Q5: Are you a Pharmacist?			Q6: Are you a Pharmacist who has own pharmacy?		
		Total	Yes	No	**Total**	Yes	No
Q34a: To what extent do you believe that the Self-Service Enhanced Vending Machine for Medications Dissipation will serve faster than pharmacies?	**Total Count**	710	68	642	68	48	20
	None	37	17	20	17	15	2
	Little	77	16	61	16	12	4
	Neutral	237	24	213	24	14	10
	Much	267	9	258	9	5	4
	Very Much	92	2	90	2	2	0
	None	5,2%	25,0%	3,1%	25,0%	31,3%	10,0%
	Little	10,8%	23,5%	9,5%	23,5%	25,0%	20,0%
	Neutral	33,4%	35,3%	33,2%	35,3%	29,2%	50,0%
	Much	37,6%	13,2%	40,2%	13,2%	10,4%	20,0%
	Very Much	13,0%	2,9%	14,0%	2,9%	4,2%	0,0%
	Overall Stat Test of Percentages	**<0,00001**			**<0,00001**		
	Average	3,4	2,5	3,5	2,5	2,3	2,8
	Median	4,0	3,0	4,0	3,0	2,0	3,0
	Standard Deviation	1,0	1,1	1,0	1,1	1,2	0,9

Table 8.13: Belief of Pharmacists to Speed of the Enhanced Vending Machine for Medications Dissipation