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E-LOYALTY OF FOOD SUPPLEMENTS PRODUCTS  
BY INVESTIGATING CONSUMERS' VALUE PERCEPTION,  
ONLINE SHOPPING ATTITUDES AND BEHAVIORS OF E-COMMERCE  
IN TURKEY

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E-Loyalty of Food Supplements Products by Investigating Customer's Value Perception, Online Shopping Attitudes and Behaviour of E-Commerce in Turkey  
Türkiye’de Tüketicilerin Değer Algısı, Çevrimiçi Alışveriş Tutumu ve E-ticaret Davranışlarının Araştırılarak Takviye Edici Gıda Ürünlerinde E-Sadakat Oluşumu

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## LIST OF ABBREVIATIONS

<b>OTC</b>	Over The Counter
<b>WWW</b>	The World Wide Web
<b>USA</b>	United States of America
<b>HON</b>	Health on the Net Code of Conduct
<b>WHO</b>	World Health Organization
<b>ICH</b>	International Conference on Harmonization
<b>FTC</b>	The Federal Trade
<b>UK</b>	United Kingdom
<b>TUIK</b>	Turkey Statistical Institute
<b>COVID-19</b>	Corona Virus
<b>TURKSTAT</b>	Turkish Statistical Institute
<b>WPCS</b>	Turkish Web-Based Pharmacy Care Settings
<b>KVKK</b>	Personal Data Protection Authority
<b>MSN</b>	MicroSoft Network
<b>B2C</b>	Business to Consumer
<b>TRUSTe</b> Information Share	A Person Who Has the Authority of Personal
<b>HTML</b>	HyperText Markup Language
<b>SERVQUAL</b>	A Scale of Service Quality
<b>E-S-QUAL</b>	A Scale of Electronic Service Quality
<b>OTS</b>	Online Trust and Security
<b>BCO</b>	Brand Commitment
<b>WFT</b>	Website Features and Technological Infrastructure
<b>CSE</b>	Customer Service
<b>SAT</b>	Satisfaction
<b>SPSS</b>	Statistical Package for the Social Sciences

**TRY**

Turkish Lira

**KMO**

Keiser- Meyer-Olkin



## **ABSTRACT**

The increasingly digitized nature of communication compels businesses to engage with clients in virtual marketplaces and, as a result, companies including food supplement providers try to adapt their conventional marketing practices according to the requirements of this new era business platform. Essential constitutions as purpose of this study is to understand affecting factors of e-trade companies to create e-loyalty attitude by consumer intent to buy online food supplement products. The proposed model investigates the degree of relationship between e-traders and consumers to build e-loyalty. It offers a deeper understanding of relatively affecting factors by examining five important dimensions which are constituted by online trust and security, brand commitment, website features and technological infrastructure, customer service and satisfaction that are prime determinants of e-loyalty. The paper is aimed to enlighten some important points for e-traders operating in the food supplement industry about how to build and increase the level of e-loyalty as an outcome of consumer relationships to retain existing customers and gain the new ones.

While the proposed model includes effective factors of e-loyalty, this study, different from other research, investigates a relationship between consumers' intention to buy online food supplement products and satisfaction to create e-loyalty as an outcome in the same model. As a sample, a hundred fifty-eight online food supplement buyers living in Turkey participated voluntarily in this survey.

This paper enlightens the lack of the food supplements industry on e-loyalty concept for consumers who make online drug purchases. Instead of previous literature, this study advises future researchers to consider other dimensional effects of e-loyalty such as by a new era of social media emerging trend named Meta Verse with numerous demographic characteristics in other nations.

**Keywords:** E-Loyalty, Over the Counter, Food Supplements, Online Sale of Food Supplement, Online Sale of Over the Counter.

## ÖZET

İletişimin giderek dijitalleşen doğası, işletmeleri müşterilerle sanal pazarlama stratejileri oluşturarak uygulamaya mecbur kılıyor. Bununla birlikte gıda takviyesi firmaları dâhil olmak üzere birçok şirket, geleneksel pazarlama uygulamalarını bu yeni çağın iş platformunun gereksinimlerine göre uyarlayıp harekete geçmeye başladı. Bu çalışma, e-ticaret şirketlerinden gıda takviyesi ürünleri satın alma eğiliminde olan tüketicilerin çevrimiçi sadakat tutumunun nasıl oluştuğuna etki eden faktörleri incelemek amacıyla hazırlanmıştır. Önerilen modelde, çevrimiçi sadakat oluşturmak için internet üzerinden gıda takviyesi satan e-ticaret siteleri ve tüketiciler arasındaki ilişkinin derecesi araştırılmaktadır. Online sadakatın ana belirleyicileri faktörleri olan çevrimiçi güvenilirlik ve güvenlik, marka bağlılığı, web sitesi özellikleri ve teknolojik altyapı, müşteri hizmetleri ve memnuniyet tarafından oluşturulan beş önemli boyutu inceleyerek etkileyen faktörlerin daha derin bir şekilde analizi yapılmıştır. Bu araştırma, gıda takviyesi endüstrisinde faaliyet gösteren e-ticaret siteleri için, mevcut müşterileri elde tutmak ve yenilerini kazanmak adına tüketici ilişkilerinin bir sonucu olarak çevrimiçi sadakat düzeyinin nasıl oluşturulacağı ve artırıldığı konusunda bazı önemli noktaları aydınlatmayı amaçlamaktadır.

Önerilen model çevrimiçi sadakati etkileyen faktörleri içerirken, bu çalışma diğer araştırmalardan farklı olarak tüketicilerin çevrimiçi gıda takviyesi ürünleri satın alma eğiliminden doğan çevrimiçi sadakat yaratma arasındaki ilişkiyi aynı model içerisinde incelemektedir. Örneklem olarak, Türkiye'de yaşayan yüz elli sekiz çevrimiçi gıda takviyesi alıcısı bu araştırmaya gönüllü olarak katılmıştır.

Bu makale, çevrimiçi gıda takviyesi satın alım yapan tüketiciler için gıda takviyesi endüstrisinin çevrimiçi sadakat kavramı konusundaki eksikliğine ışık tutmaktadır. Daha önce yapılan araştırmalara ek olarak bu çalışma, gelecekteki araştırmacılara, sosyal medya çağının popüler ve yeni trend platformu Meta verse uygulamalarını inceleyip farklı demografik ve coğrafik özelliğe sahip örneklemeler ile online sadakat boyutlarının etkilerini dikkate almalarını tavsiye ediyor.

Anahtar Kelime: Çevrimiçi Sadakat, Reçetesiz İlaç, Reçetesiz İlaç Çevrimiçi Satışı, Gıda Takviyesi, Gıda Takviyesi Çevrimiçi Satışı.

## **CHAPTER ONE**

### **INTRODUCTION**

Food Supplements with another explanation over the counter (OTC) products are reachable drugs that could be possessed without the need of prescription from a doctor. In order for a drug to be named as Food Supplement, the drug effects should be analyzed with recommended dosage and duration, method of application, use for many years' knowledge and findings obtained as a result of evaluation and the result of this evaluation. Accordingly, it should be decided whether it can be used without a doctor's prescription and pharmacist's advice (Özçelikay, 1998) With a short-term intake, they are useful and effective to raise a better conduct of targeted minor illnesses but not used for curing %100. Dosage advised by a doctor or a pharmacist for a particular condition plays a significant role for a required result. Supplements were defined as safe and practical by the Food and Drug Administration if it has been used with prescribed dosage. Online sale of supplements has been raised particularly after Covid-19 pandemic as a result of increasing demand for evoking health conditions not to catch the virus or the ones already passing through Covid-19 to recover faster and have a better immune system. This study aims to discover how e-loyalty is driven by online food supplement provider's websites to meet increasing demand and investigated with its effective factors to consider a relationship between consumers' intention to buy online food supplement products and satisfaction to create e-loyalty as an outcome. Turkish online drug sale regulations are also investigated to determine governmental approach and the limitations. For a consumer's behaviors and assessments over the websites, study designed with voluntary surveys spreaded by an online questionnaire.

Turkey has adopted food supplements regulation of European Countries namely Greece, France, Italy. Food supplements were listed according to these regulations and divided into two categories as medical and non-medical drugs in which food

supplements belong. Similar to European countries, in Turkey according to health regulations, most prescribed medicines are compensated by the government excluding food supplements which are more expensive comparatively and price police is totally free. Thereupon, the Ministry of Health for over-the-counter drug advertisements allowed with revised arrangement published on April 27,1996 by adding some new articles. According to the new regulation, a legal arrangement was made on April 27, 1996 by adding some articles. According to this regulation, only prescription drug providing companies are not allowed to advertise the medical preparations, but they are allowed to advertise of non- prescribed drugs (OTC), and publicity can be made with the approval of the Ministry of Health. Radio and Television Law became effective in 2011 which states that, "You may not engage in commercial activity about prescription medications." "Over-the-counter medicine marketing may be truthful and somewhat verifiable" (Official gazette of the republic of Turkey. Radio and television law, 03.03.2011). After the implementation of the Radio and Television Law about over-the-counter medicine advertising to become unrestricted, pharmacy communities and some individuals still debate the topic of over-the-counter advertising. While most pharmacists are against OTC (Over the Counter) advertisements, some others find it an effective way of giving information about the product and service. The majority of pharmacists in Turkey did not approve OTC advertising to end users as it is closely related with the literacy rate directly to diminish misinformation perception. Regarding the study conducted by Gülpınar and Özcelik in 1998, online food supplements advertisements mislead consumers by expressing that the product could be useful for every situation when it's used (Gülpınar, Özçelikay, 1998). However, an unconscious consumer may be influenced by a drug advertisement's content and take the medication improperly as a result. Therefore, advertisements of OTC products could be misunderstood by consumers having a lesser knowledge background of health-related products.

## **1.1 BACKGROUND OF THE STUDY**

Digitalized world of communication leads companies to interact with customers in online markets and adapt traditional marketing strategies into the digital world accordingly. Similar to other industries, pharmacies started to create digital forms of business to consumer relations into the era of free access to information exchange. The Internet is one of the latest inventions that has truly changed the globe and become an integral part of our daily lives. The Internet is now working as a revolutionary agent that is radically altering the corporate sector. With the development of the Internet and information technology, communication and the creation of relationships between individuals from any region of the world have become extraordinarily simple (Singh, Gordon & Purchase, 2007). Several internet-based protocols for business and communication, such as electronic mail, the World Wide Web (WWW), and e-commerce, facilitate customer-business interaction (Lee-Kelley, Gilbert, and Mannicom, 2003). E-commerce facilitates the exchange of goods and services over the Internet. The web-based retail storefronts of e-retailers are a key supplier of e-commerce services.

Against the lack of information for adequate sources including all the risks driven by online shopping, building customer loyalty has led to a light on the importance of retaining existing customers and creating a trust based relation with consumers (McMullan, 2005). In a new era, modern innovations were transformed to the new world to rebuild revolutionary dynamic ways of trading and communication. Thanks to the internet, all the development of the focused problem has been solved between companies and individuals in an incredibly easy way (Singh, Gordon and Purchase, 2007). Traditional definition of brand loyalty has been transformed into e-loyalty which is a good customer attitude toward e-retailers that results in recurrent purchases throughout time (Reichheld and Schefter, 2000) and the main source of sustainable profitability (Salegna and Goodwin, 2005). The idea of loyalty in the physical market and the digital market has remarkable similarities, but are measured differently due to the specific characteristics of their respective

contexts. Even the use of the Internet by consumers has changed over time, shifting from a receptive to an active use defined by the flow of information and interaction between customers and brands. E-loyalty has more meanings than providing higher profitability, it has also contributed to prevent a consumer to switch a brand and protect exit barriers (Reichheld, 2003). In an e-commerce context, e-loyalty can be defined as a positive consumer attitude towards e-retailers that leads to repeated buying behavior over time (Reichheld and Scheffer, 2000). The idea of loyalty in the physical market and the digital market have remarkable similarities, but are measured differently due to the specific characteristics of their respective contexts. Even the use of the Internet by consumers has changed over time, shifting from a receptive to an active use defined by the flow of information and interaction between customers and brands.

Technologies associated with health are living in a golden age of the rapid need to reach health related information, products and services with the help of the internet. Online users and health product consumers have been increasingly seeking for health-related information. A study conducted among USA individuals %72 adult users searched online for medical information. Not only USA civilians also broad research realized that everyone in two users in a broad group of 12 nations participate in self-diagnosis (<http://healthpopuli.com>,2011). To create an ease of access to information while providing some positive effects, it has resulted in some threats due to unregulated expansion. Counterfeit drugs have found a way to be sold without restrictions as a result of illicit pharmacy formations represents a crucial problem towards public health and safety. Governance regulations to prevent the lack of adequate approval of online pharmacy facilities are significantly important to develop.

Health information seekers should ask some questions before checking the information reliability. Can I trust health information of an online platforms? That information had been placed by a medical professional? Is the information up-to-date? Health organization criteria (HON) were created in 2015 to cover online

users concerns by supporting and directing the distribution of accurate online health and medical information with a certification system. Hon criteria had been designed by Hon Foundation and Health Editors to evaluate the quality of online health information and it has become a widely used quality code of online health information with over 8300 recognized health websites. It has been devoted to clarify health information among websites to enhance buyers' need to reach the right source of advice and practice. Honcode accreditation procedure could be reached by the website <http://www.healthonnet.org/HONcode/Conduct.html> and standards has been measured in terms of below specifications; (Célia Boyer, Ljiljana Dolamic)

- Advertising Policy
- Credibility
- Complementarity
- Privacy
- Protection
- Attribution
- Justifiability
- Transparency
- Financial Disclosure

For Turkish websites, HON code standards had been investigated by Yegenoglu in 2013 for 40 number online food supplements supplier's websites were graded according to HON criteria's (Health on the Net Code of Conduct for medical and health information, product and service) and points of the mostly well-known ones were not graded more than 2.3 over 6 means half of the criteria's hadn't met.

In another study conducted in 2015 by Tekin and Kula, 78 websites operating in Turkey offering food supplements in the sexuality, dietary and performance categories had been analyzed. According to the HON code standards the websites investigated that having low level of information and lacked in terms of cautions

on the significance of doctor patient relationship along with scientific information. 2.56 was the overall quality ranking of websites (standards graded in between 0 to 6 max). The diet group had a lower quality point as 2.20 while sexuality category had 2.74 and performance had 2.80. (Tekin, Kula, 2015)

## **1.2 STATEMENT OF A PROBLEM**

E-commerce is made available to consumers to receive a high variety of service and products including food supplement industry to create a value that assures high quality service standards by which results in loyalty attitudes (Zott, Amit & Donlevy, 2000). Some challenges online pharmacy product providers face to retain customers. For marketplaces it's harder to enhance face to face encounters with the customer to give personal supervision, a consultancy is harder to realize at online platforms. Therefore, to contribute a custom-made experience that increases loyalty in e-commerce connection is harder for online sellers compared to traditional stores (Chang, Wang and Yang, 2009). Unless it is not only one element to build loyalty, also some other parameters like trust, security, satisfaction, website & technology and customer service have been examined with details below in this study to clarify what is needed to retain existing consumers and gaining the new ones. If those criteria's can be assured, customers intend to buy again from the same e-commerce website (Chang et al, 2009). It could be observed in a case that unless a customer satisfied with previous experience could change provider and don't repeat buying action. When consumers don't feel they are worthy and receiving the best service or a product, they intend to search for alternatives and to find a better one (Anderson, Srinivasan, 2003). Therefore, it is no matter in which business a company operates in, e-loyalty should be considered as a critical issue to understand and achieve in online marketplace.

In some papers, trust has been found positively related to the e-loyalty approach and discussed the effect of e-service quality of e-retailers with customer satisfaction in different dimensions (Sheng & Liu, 2010). Despite these articles,

there are a few studies focused on the pharmaceutical industry and its e-loyalty parameters after the online revolution of food supplements sale. Therefore, the study might be constructive for the areas that have not been enlightened to understand e-loyalty parameters by investigating consumer approach along with food supplement providers' websites.

This study has some limitations geographically and in terms of demographic variety to understand global online buyers' attitude of food supplements to be considered. It is conducted in Turkey with Turkish online buyers which means e-loyalty approach could be different for the same activity. It also differs for the websites that people are shopping from and the service received in other countries or providers. Connected with the cultural background of buyers could be an important indicator of the reception for e-loyalty and differs with behavioral intention. This study does not include the scope of cultural dimension that gives a chance for the further studies to investigate cultural background as a distinctive indicator. This paper is focused to study the context of e-loyalty for food supplement providers by investigating consumer approach in Turkey.

### **1.3 AIM AND THE PURPOSE OF THE STUDY**

Main purpose of the study is to find an answer to clarify the effects of e-loyalty drivers for food supplement providers of e-commerce websites within the consumer aspect in Turkey. Using the internet for shopping needs has become an attractive and easy alternative way to gather information and buy a product/service. It has an obvious benefit through being accessible for 24 hours without geographical limits. Beside its advantages compared to traditional markets, it includes some high-level risks (Van den Poel and Leunis, 1999). People are getting more online intensive for health service requirements. They start to prefer to seek disease effects and treatment information without paying attention to the source of online information's accuracy. It directly relates with the health literature reading level (Link and Phelan, 1995). All societies with different

educational backgrounds have various points of view about health literature and its criticism. With this characterized and large number of consumers has shifted to the internet for health care services which leads a competitive marketplace for the health industry. (Rahtz and Sirgy, 2000). Some users go online due to the lack of a health management system in the country where they receive treatment by an assistant, instead of a physician. Therefore, they prefer to get online self-medication methods (Stolberg, 1999; Skolnick, 1997). While some others desire to get a product without spending physical and communicative effort with a person who asks questions. No matter what the mission is, people with a large number of populations go online for healthcare requirements and it has been realized in Henkel's study that it's the sixth most preferred reason for consumers to go online (Henkel, 2000).

The number of online drug sales in the world could not be underestimated which shows that there is an increasing attention by consumers to the value of health information, products and services. Especially for elderly people and the ones who live away from city centers, in rural areas, home delivery of drugs might be a lifesaving solution (Sutton and Lumpkin, 1992; Festervand, 1994). For some consumers having embarrassing illnesses that are hard to talk to face to face, dealing with inconvenient schedules which are hard to fix, or difficulty reaching to get a service and advice might be some reasons to switch online health care service.

Compared to online sale of drugs, traditional pharmacies have been controlled and regulated by government authorities within the scope of law. Distribution channel, stock conditions within required temperature, atmosphere effects drug pureness, managerial licenses of a store and the workers have been controlled regularly which leads to an accurate safeguard where the quality of management has been assured. Product quality, availability and follow up schedule prevents a consumer from misprescribed dose and misdiagnose possibilities. Instead of all those investigations, still there are huge potential risks in the consumer aspect. Patients

could easily neglect instructions that lead under or overdose intake might create adverse reactions. Health care professionals may make incorrect diagnoses and advise irrelevant drugs in the prescriptions. Possible medication interactions may be missed. It is possible for harmful effects to be undetected.

For the regulation of the trading system of online drug sales, some countries have applied some regulations that are exemplary between Europe and the USA. The European Commission has admitted that any attempts by the European Union to outlaw the selling of drugs over the Internet is likely to have only a limited impact (Rogers, 1997). A report issued by WHO (World Health Organization) to analyze online medical advertisement and sale of drugs considering the quality of products (Skolnick, 1997) has no guidelines to regulate the sale. Despite WHO, some international communities related with medical products advertisement and online sale have been formatted. In a conference held in 1997 with the involvement of authorities from USA, Europe and Japan, it was decided to formulate technical guidelines to control medical product advertisement and sale (International Conference on Harmonization (ICH),1997). With its help, companies have been controlled by their advertisement actions for marketing pharmaceutical products and standardized techniques without approval process (Nordenberg, 1997). In the USA, the risk information and the balance of advantages with dangers are required to be included in any advertising which appears in the online and offline media within news or print media. A commission named The Federal Trade (FTC) is in charge of regulating advertising of drugs and they defend a belief that they have jurisdiction over all advertisements which are shown on the internet (Czaban, 1997). This commission is responsible for policing pharmaceutical medication claims that are made in internet advertising. The United Kingdom takes part in the European Agency for the Evaluation of Medicinal Products as a participating member. Its own Medicines Act of 1968 controls unlicensed medical drugs, and its Control Agency investigates actions related to internet trade and promotion of narcotic-related items. In order to comply with standards to be imported and marketed lawfully and ethically, the European Medicines Evaluation Agency

provides marketing permission for the pharmaceutical. This permission makes it possible for the UK to legally import drugs which is obligatory in the country. Any narcotics that are brought into the country illegally are subject to stroke and prosecution (House of Commons, 1998).

To prevent such an example of obtaining the prescribed or non-prescribed drugs from other countries by online channels makes the counterfeit products possible to circulate even more easier and accessible. Distribution flow of drugs without regulations applied between countries lead illicit sources to be freely distributed and endanger the life of a substantial number of people. For all those reasons, building trust between online dealer and consumer is mostly essential for the safety of the patient which is considered as one of the strongest e-loyalty. All the risks and advantages of online selling drugs that lead to e-loyalty constructs under the awareness of the seriousness of a problem in which this paper shed a light on online drug purchase attention along with the risk potential.

Since e-loyalty has been rapidly moving towards its importance for every business operating online activities, websites have been adopting new strategies to retain customer and gain new ones. For the attainment of e-loyalty, this study focused especially on the pharmaceutical industry along with its high risks and convenience. Key influential factors have been investigated through previous studies and tried to add a new perspective with a narrowed down industrial aspect of internet marketing as it has been detailed evaluation for e-loyalty. For any type of business, it has been necessary to identify customer relations and its establishment. While the Turkish supplement market for dietary products was projected to be worth USD 264.52 million-dollar, online pharmacy market size reached to USD 20.64 million in 2022 which was expected to reach 24.03 million by 2027. Addition to that, user penetration of online pharmacies was expected to reach from 17.93% to 21.82% by 2027 (<https://www.statista.com/>). As already mentioned, there is no such study available in the context of Turkey and conducted before focused on companies' operation in online pharmacy and food supplement

supplier websites' e-loyalty. Therefore, there are some parts needed to be clarified with this study by shedding light on unknown effects of online food supplement purchase and how to build online providers e-loyalty to create beneficial relations between company and consumer.

The purpose of the study is to understand well the relationship between consumer and online supplement provider. To clarify how consumer loyalty is transferred into online platforms and transformed to e-loyalty has been one of the other essential study topics. To constitute the degree of relation how the extent of e-loyalty that has a number of characteristics affects consumer behaviors. Those constitutional elements have been clarified with details in the literature part of the study.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

In this chapter, e-commerce development of food supplements has been investigated worldwide then the topic narrowed down to the Turkish market with some statistics mentioning OTC market value. E- pharmacy concept has been examined to understand the adaptation into Turkey and relevant findings have taken a place in the study. The Code of conduct principles of Turkey has been mentioned to clarify what are the restrictions of the pharmaceutical industry after the transmission into online business by referring to some benefits and destructions to come along with.

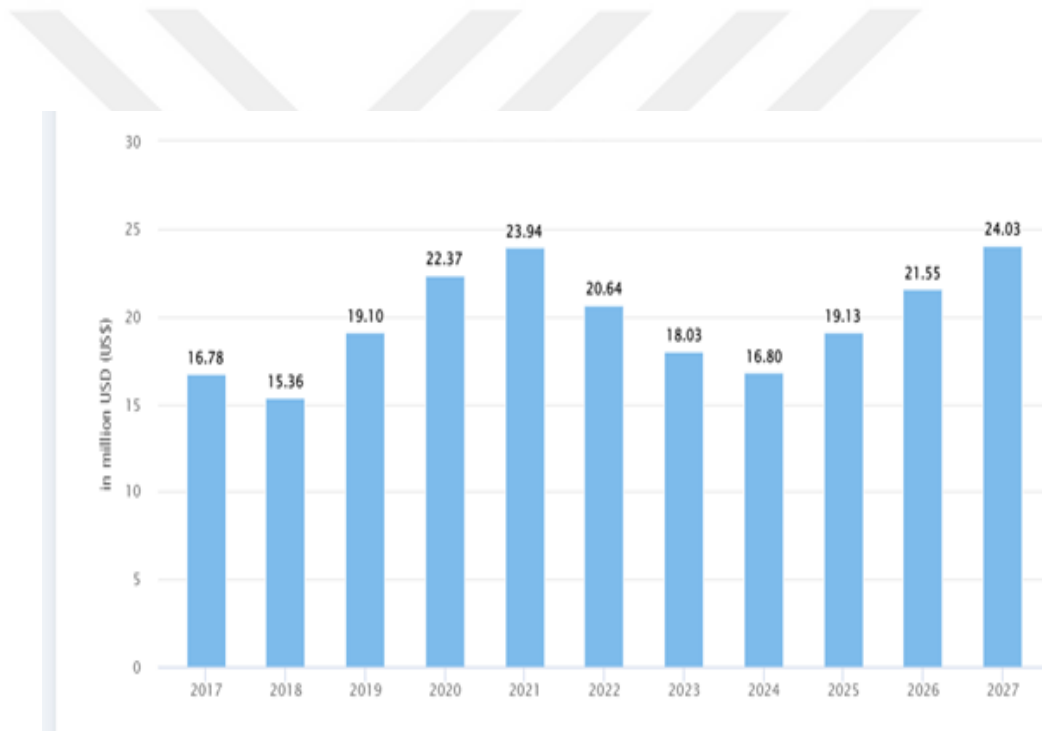
#### **2.1 E-COMMERCE DEVELOPMENT OF FOOD SUPPLEMENTS**

Food supplements with another explanation are called dietary supplements consisting of natural and laboratorial ingredients. They become more common to use after Coronavirus to prevent illness before having it. In Europe regulations defined supplements as food consisting of concentrated ingredients with nutrition which makes them neither food nor medicine (UE directive 2002/46/ CE and Legislative Decree 169/2004). They also define the maximum dosage for daily intake and restricted usage dosage. It has some acclaimed benefits and is categorized into segments which are dietary, sports and exercise, antiaging, wellness and beauty (Franchini and Romagnoli, 2010).

The market for dietary supplements in Turkey was projected to be worth USD 264.52 million while the online pharmacy market reached USD 20.64 million in 2022. By 2027, the market for dietary supplements in Turkey is expected to be worth USD 358.76 million at a CAGR of 6.10% as online market volume is projected to increase USD 24. 03 million by 2027. User penetration is also expected to reach from 17.93% in 2022 to 21.82% by 2027 while global market size is USD 151.9 billion and anticipated to grow at a CAGR of 8.9% from 2022

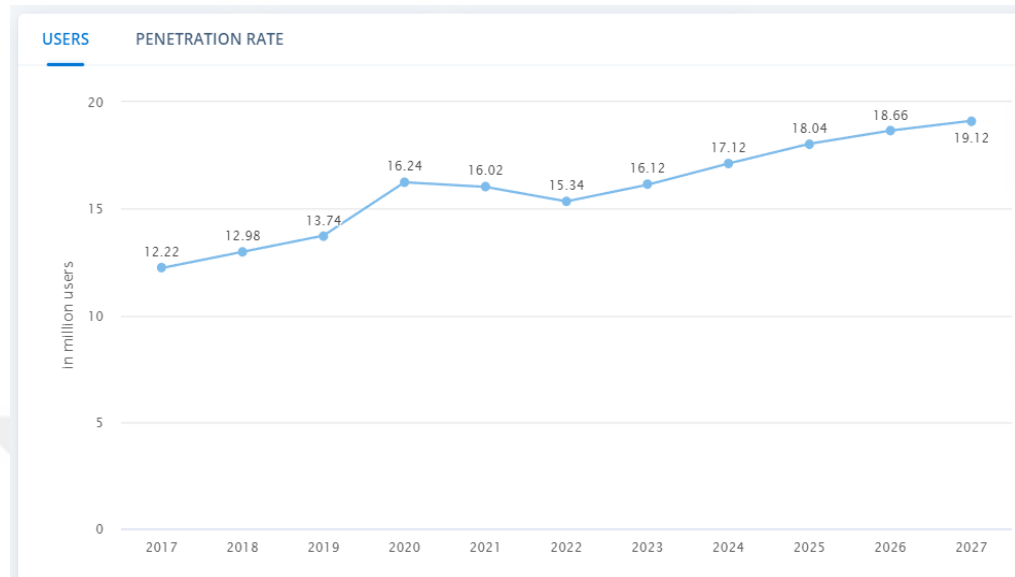
to 2030. (Statistica, Digital Health Report for Turkey, 2022) It has a rival competitive environment due to its growing size of world economy and assumed to be more competitive in the following days (Federsalus, 2017). Below table shows data using current exchange rates and reflects market impacts of online pharmacy revenue in Turkey, 2022 (Statista Digital Market Outlook - Segment Report 2022 in Turkey)

**Table 2.1:** Online pharmacy revenue in Turkey



**Source:** 2022 (Statista Digital Market Outlook - Segment Report 2022 in Turkey)

**Table 2.2:** Number of online pharmacy users from 2017 to 2027



**Source:** 2022 (Statista Digital Market Outlook - Segment Report 2022 in Turkey)

Information access has become more extensive and easier with the growing use of the internet. The engagement of younger users has had a crucial impact on the approach adopted by information technology as a result of a significant growth in their internet access. Accordingly, social media play a vital role in people's life (Schapendonk et al., 2021). Social media has been transformed to marketing strategies over the past decade, resulting after the higher participation of influencers (Phua et al.2017). During Covid 19, people preferred to utilize social media more frequently to entertain themselves (Etzkorn, 2021). Social media personalities, such as influencers, become increasingly important for firms to consider to develop digital brand strategies. More than 75% of consumers, especially those in the cosmetics sector, trust on influencers' recommendations when making purchases, according to research (Marketeer, 2019). Online communities provide a channel for social media users to engage, communicate, discover, and express their knowledge and experiences related to particular brands of items. For instance, the cosmetics industry has grown rapidly in recent years

thanks to the consumers' online impact on sites like Facebook, Instagram, and YouTube (Romteera Sudchar, 2019). Therefore, these platforms are easier for customers to perceive, and the primary factor that distinguishes influencer compared to traditional advertising is where they present the products in a sincere manner; this can give consumers the impression that they are perceiving legitimate information or recommendations from users who are not sponsored by the brand. Additionally, product reviews from bloggers can improve consumer involvement. Compared to hiring influencers, the amount the corporation must pay for advertising is significantly higher. Employed influencers can establish brand monarchy and brand loyalty for themselves, as well as a true relationship with their followers. Online community, a society for building an impact and assisting people in need, is an essential source for micro influencers (Kamboj et al., 2018).

As the regulation of supplements differs from one country's law to another, it is generally inaccurate and mostly relevant with the production and packaging process. Regulations mostly created with the aspect of a product produced at minimum market level standards considering labeling and accurate information on it with an advertising message. The significant majority of studies conducted necessarily have a strong geographical focus (Binns et al., 2018). Considering that nutrient supplements can create a variety of unpleasant side effects in the body, regulatory efforts must not only assure the fundamental safety requirements of the products, but also limit the consumer's possible dangers occurring after the consumption of particular chemicals. Lack of understanding and uncertainty regarding the true functions and effects of these products on the body can have created important ethical issues (Cardenas and Fuchs-Tarlovsky, 2018).

Considering the lack of regulatory harmonization, food supplements confront multiple challenges, which has contributed to the expansion of unethical business practices. Accurate information regarding the provision of ingredients as well as claims and commitments reflects the food supplement company's trustworthy approach and prevents unhealthy results after the use of the consumer. Food

supplements have reflected the rising interest in complementary and alternative medicine since their debut to the market in the early 1950s . According to recent research, health-conscious consumers are more focused on prevention and more inclined to utilize dietary supplements than others (Willis and Stafford, 2016). Over time, people have begun to place a larger emphasis on their health and wellbeing. However, in the era of the Internet, unrestricted access to information has led to a radicalization and distortion of the meanings ascribed to human health, especially in respect to dietary supplements. The movement of people via migration and travel, as well as the flow of information and ideas through the Internet and social media, have spread a variety of lifestyles around the world; they have also sometimes transmitted unhealthy habits (Huynen et al., 2005; Vaterlau et al., 2015). Despite the recognition that the communication channel is crucial in enabling the customer co-creation process, empirical research investigating the influence of communication channels, especially social media and the internet, is limited in the food industry and remains fragmented across disciplines (e.g., Mahr et al., 2014; Wang and Yu, 2017; Zhang and Benyoucef, 2016). This study aims to contribute by bridging the gap in our knowledge of the pre-purchase consumer behavior decision-making process in relation to un-notified and illegal nutritional supplements, as well as by characterizing the dynamics that unfold within a virtual community. There is a confused variety of official and credible material and hazardous and false information concerning dietary supplements online (Siracusa and Petrelli, 2016). In addition, regulatory gaps in the online distribution of nutritional supplements have fostered a black market for unreported and illegal products.

Accordingly, health information search and getting health care service and products has been transformed to online platforms while the world transformed to the digital era (Weaver, et al., 2009). Information seekers and suppliers have been met under the name of e-health that brings together companies operating in the health industry and customers who are seeking for health information and services online which leads to digital transformation (Haluza, et al., 2017; Matusitz and

Breen, 2007). Due to the rise of epidemic and chronic disease, health information accuracy attained through online platforms has been gaining importance. Nowadays, it is believed that health literature is a key factor of health promotion.

People are getting more conscious to lengthen their life and keep the body and mind in a better form. To do so, they are well aware that obtaining a body in better conditions is through having sufficient information and awareness that leads to developing correct attitudes and behaviors about health (Konca, Demirci, Çakmak, Ugurluoglu 2022).

People today are expected to have the necessary information, understanding, and skills to adopt healthy lifestyles, realize the practices advised by healthcare professionals. To participate in an active way about decisions for their health is realized after having high quality medical care service. For the seekers actively searching online about health treatments, it is important to be a good health literacy reader. Correspondingly, it is important for the companies that use the internet as a marketing promotion to give accurate information to those seekers.

The Internet has brought equality for all health seekers who have online connections. Easy access of resources with the help of the internet has brought equality for the people who need health information (Percheski and Hargittai, 2011). However, it is hard to say all society segments have the same level of literature reading level (Link and Phelan, 1995). Some research indicated the relationship between education level of information seekers' parents to investigate the determinants of health information seeking behavior. Zhao (2009) in the USA conducted research that revealed mostly teenagers whose family has lower-level education seeks more health information for the support of family members. During the research conducted among 700 American participants, offline and online media were compared as a choice of health information gathering by Beaudoin and Hong (2011). Observed behavior differs related to education level, age, gender and income level conformed to research results. Using the internet as

a source of health information was commonly used by young women. Higher income level has been found as another important parameter for such behavior to increase. To mention briefly about the findings of this research is that Internet use is more preferred among young people and women with better incomes and educational levels Beaudoin and Hong (2011).

Other similar research had been conducted by Percheski and Hargittai (2011) among 1060 first year students of university to investigate health information seeking behavior in the United States. Most girls, compared to boys, are interested in searching for health information on the Internet. Those who live with their family and advanced use of the internet are other parameters that support the search behavior.

The need for having greater information has been increasing rapidly. The Internet as a source of information provides a variety of information including health care and services which are searched by numerous people nowadays. Use of the internet increased %1.416 from 2000 to 2022 (Miniwatts Marketing Group, 2022). It's similar for the health information seekers numbers. Between 2011 and 2021, in Turkey, households having internet access numbers have increased to %92 from %90 while %82.6 of the population is using the internet (TUIK, Household Information Technologies Usage Survey). Relatively, health expenditure of individuals has increased by %24.3 from 68.6 billion to 249 billion Turkish lira (TUIK, Health expenditure Statistics, 2020). Similarly, health information seekers and the rate of medicine purchase has increased in Turkey too.

While %92 of households has access to the internet, the purchase rate of online shopping for health care, cosmetics and beauty products is %24 in the first quarter of 2022 (TUIK, Household Information Technologies Usage Survey). Online Pharmacy concept emerged frequently after the rise of the Internet for commercial purposes in the 1990s (Makinen, Rautava, Forsstrom, 2005).

E-pharmacy is a conceptual digital place where pharmacists could sell food supplements online and have transactions without physical contact. It has some other definitions in literature such as cyber pharmacy, internet pharmacy and virtual pharmacy (Crawford, 2003). Some advantages of online pharmacy comparing to brick-and-mortar pharmacies as follows;

- Ease of procurement without physically spending time and energy to get what is needed.
- Privacy of the purchase process
- Easy access to product for people who lives far from the pharmacy
- Competitive price with the help of easy access to other online suppliers' prices.
- Wide range of products offers a visitor more options than physical pharmacy stocks.

The Internet makes it simple to find information on medicine and health care options in modern society. An expansion of online shopping reveals the negative aspect of this environment. The Internet makes analyzing everything easier with a critical eye. On the other hand, the decline in the quality of Internet-based information and goods is a given. In addition, certain websites that imitate online pharmacies are perfect for selling counterfeit drugs. Furthermore, several surveys have shown that the quality status of internet pharmacies is dreadful. Similarly, none of the internet pharmacies fulfilled the HON Criteria (Health on the Net Code of Conduct for medical and health) (Yegenoglu S, Ozcelikay,2005)

## **2.2 E-COMMERCE CONCEPT, SCOPE AND IMPORTANCE OF FOOD SUPPLEMENTS**

E-commerce has been driven to create the flow of information and payment technology facilitates electronic adaptation by enterprises, companies and individuals. Recent years its application has been improved with the help of

technology and increasing the number of users.

### **2.2.1 E-Commerce Concept**

Lots of industries regarding research and development incentives including pharmaceutical industries have been adopted to create competitive advantage for sustainable growth. Adaptation is being held not only consumer to business but also business to business applications to get involved in the decision-making process. For pharmaceutical incentive value created innovators pay more attention to drug innovations, trials, human resource management and clinical development. Harmony arises after united ecommerce and company strategy enhance increasing value which has three significant impacts on the industry. First is time spent is reduced with the help of research and applications. Second is the latest clinical developments could be reached conveniently while a third contribution could be defined to increase participants' value (Kanungo,2004).

While the pharmaceutical industry adds significant value to human life along with the society, it encounters some struggles to develop better service with lower cost and higher benefit. Those challenges faced mostly in the 1980s, lead to higher pressure on the pharmaceutical industry to deliver products with better quality service. To meet that increasing demand on lower cost through managing risk and sharing resources achieved with e-commerce adaptation into pharmaceutical business (Kanungo,2004) believed that it is mostly a research-intensive industry to gain competitive advantage. (Betz ,1987). During the years, as a consequence of e-commerce adaptation, the pharmaceutical market has gained required access and speed to reach global operations and the revenue from 1995 to 2000 calculated as 3.5 billion dollars. Through an integrated system which is known as Electronic Data Interchange, the market has been expanded and effective communication due to better interaction with consumers has been found (Kanungo,2004). With the utilization of e-commerce for the free flow of information, build reliable communication between users and companies. No time limit settled to reach regardless of location, contribute better service providing latest medical

information to individuals and pharma community (Lin and Huarng, 2000). Some different proposed websites have been found online for the pharmaceutical industry. Some of them have been built to give medical information, some are for corporate issues, while some others created as gate away, store front and virtual stores (Gagnon, 1997).

Pharmaceutical companies that adopt e-commerce into their business, can create higher interaction with customers, suppliers and professionals while enhancing clinical development of drug innovations. As a consequence of integration, they also improve techniques for marketing and sales for higher efficiency. For a sustained development, Richards (1991) advised such integrations with information technology, telecommunication, and transaction technology for subsequent applications of e-commerce which means a creating system works with sustainability.

### **2.2.2 E-Commerce Development of Food Supplements in Turkey**

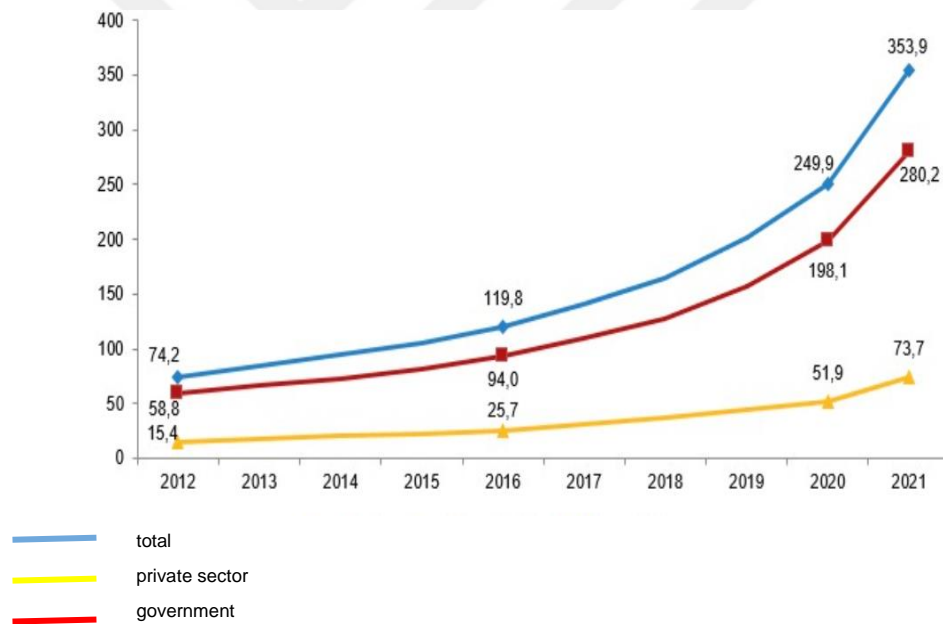
Health industry responded to an unexpected case of Covid-19 pandemic that led to increased health spending by individuals and investments by governments. Spending compared to previous years had been raised that had negatively affected the health industry. To develop a treatment, pharmacists played a crucial role in the development of drugs and studies. People shifted their shopping habits for retail market, food service, including food supplements, to digital sales platforms. As a result of curfews, with the increased demand of shopping online e-commerce ratio had been raised during quarantine periods. Compared to traditional shopping, increased online shopping provides access to many products without leaving home and has raised sales numbers of many industries (Toplu Yılmaz & Bayram, 2020).

While the health spend per capita was 2,434 Turkish Lira in 2019, with the unexpected Covid-19 pandemic it climbed by 23.1% to 2,997 TL in 2020 related to an outbreak. Below table shows health spending per capita in Turkey between

2011-2020.

In 2021, Total health expenditure amounted to 353 billion 941 million TL in Turkey. Total health expenditure increased by 41.6% in 2021 compared to the previous year and reached 353 billion 941 million TL. General government health expenditure increased by 41.5% and reached 280 billion 220 million TL. Private sector health expenditure was estimated as 73 billion 721 million TL with an increase rate of 42.1% (TUIK statistics). Below table shows the health expenditures by years of total, government and private companies.

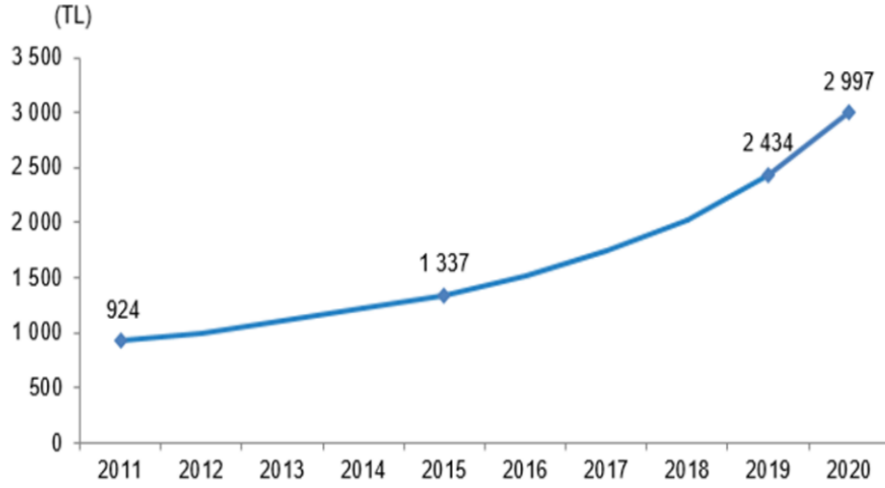
**Table 2.3:** Health Expenditure by Years in Turkey



**Source:** TUIK statistics

In the first two quarters of 2021, the ratio of e-commerce to total trade is shown in the graph below as 17.6%. May of 2021 was the month with the highest rate, at 20.2%. In June, when the COVID-19 epidemic began to substantially normalize, this ratio reduced to 15.2%. (Akbiyık, 2022). Below table shows that distribution of e-commerce volume by sectors in 2022;

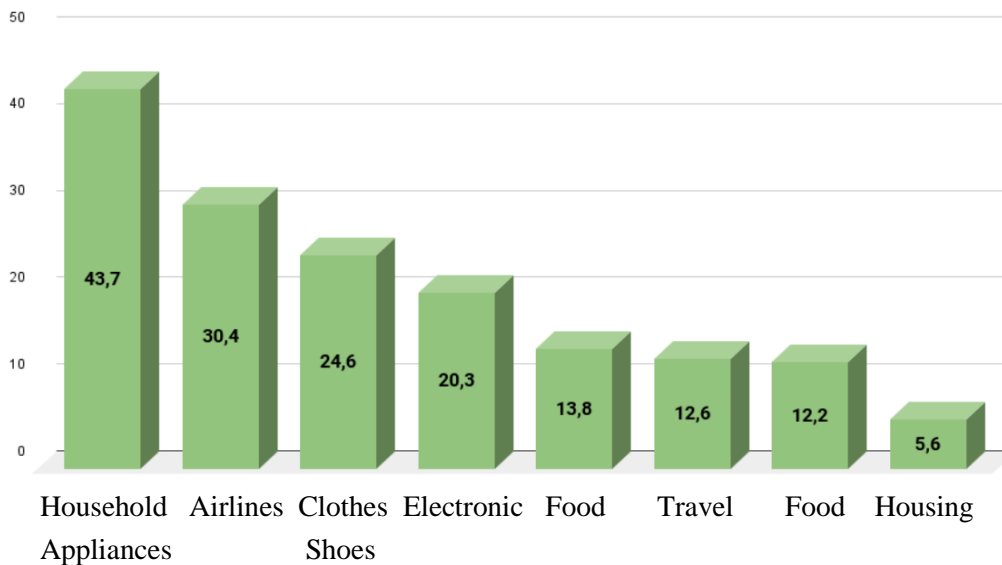
**Table 2.4:** Health expenditure per capita in Turkey



**Source:** Turkish health spending (Statistica)

Statistics given below shows that traveling has been injured by pandemics and become the most valued second expenditure in the first 6 months of 2022. Most expenditure has been made on household appliances with 43.7 billion Turkish lira.

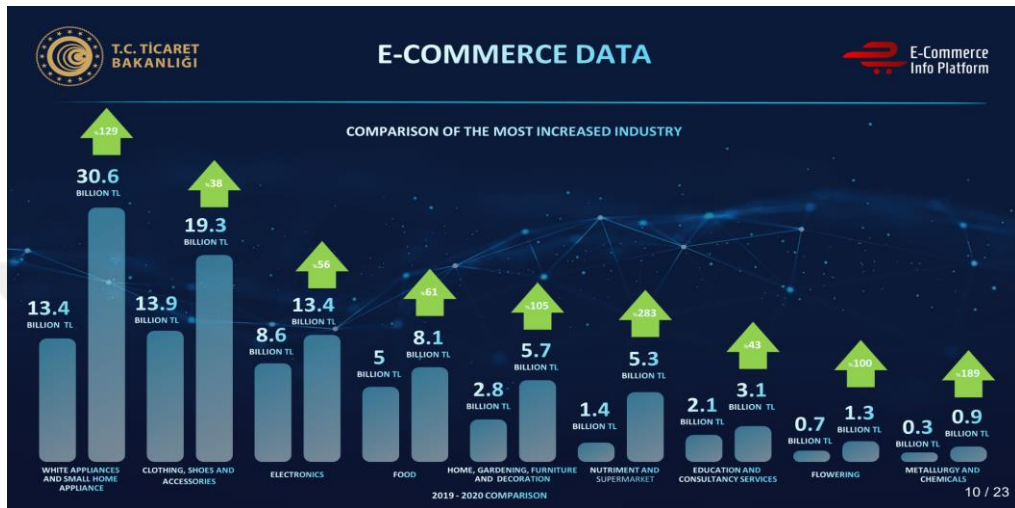
**Table 2.5:** Distribution of E-commerce Volume by Sectors in 2022 (Billion TL)



**Source:** <https://www.eticaret.gov.tr/istatistikler>

Statistics given below shows that traveling has been injured by pandemics and become the most valued second expenditure in the first 6 months of 2022. Most expenditure has been made on household appliances with 43.7 billion Turkish lira.

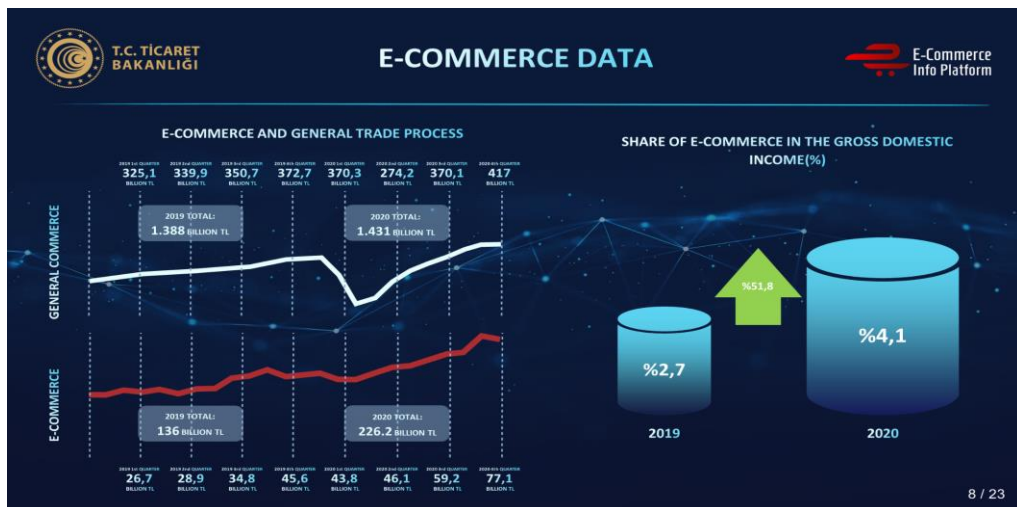
**Table 2.6:** Comparison of the most increased industry between 2019 to 2020



Source: <https://www.eticaret.gov.tr/istatistikler>

In 2020, the highest increase among the sectors has been recognized in Nutriment expense with %283 rise. Among others to be ranked from highest to lower Metallurgy, chemicals with %189, home appliances realized %129 increase and flowering with %100 rise compared to previous years.

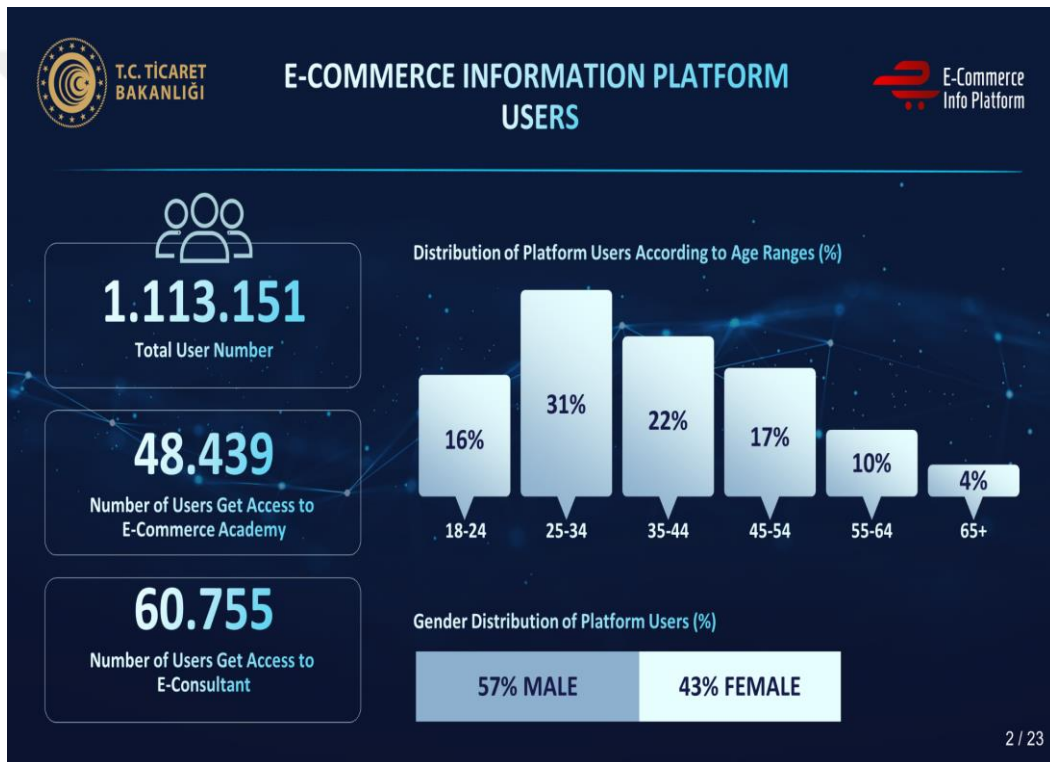
**Table 2.7:** E-commerce vs General Commerce



Source: <https://www.eticaret.gov.tr/istatistikler>

Between 2019 and 2020, there has been a tremendous increase in e-commerce. According to the above table of statistics published by the ministry of commerce in 2021, e-commerce volume had increased from 136 billion to 226.2 billion while general commerce raised from 1.388 billion in 2019 to 1.431 billion TL in 2020. Gross domestic share of e-commerce in 2019 was %2.7 in 2019 while %4.1 in 2020. Its share of gross domestic income has increased by %51.8.

**Table 2.8:** E-commerce Users’ Demographic Information

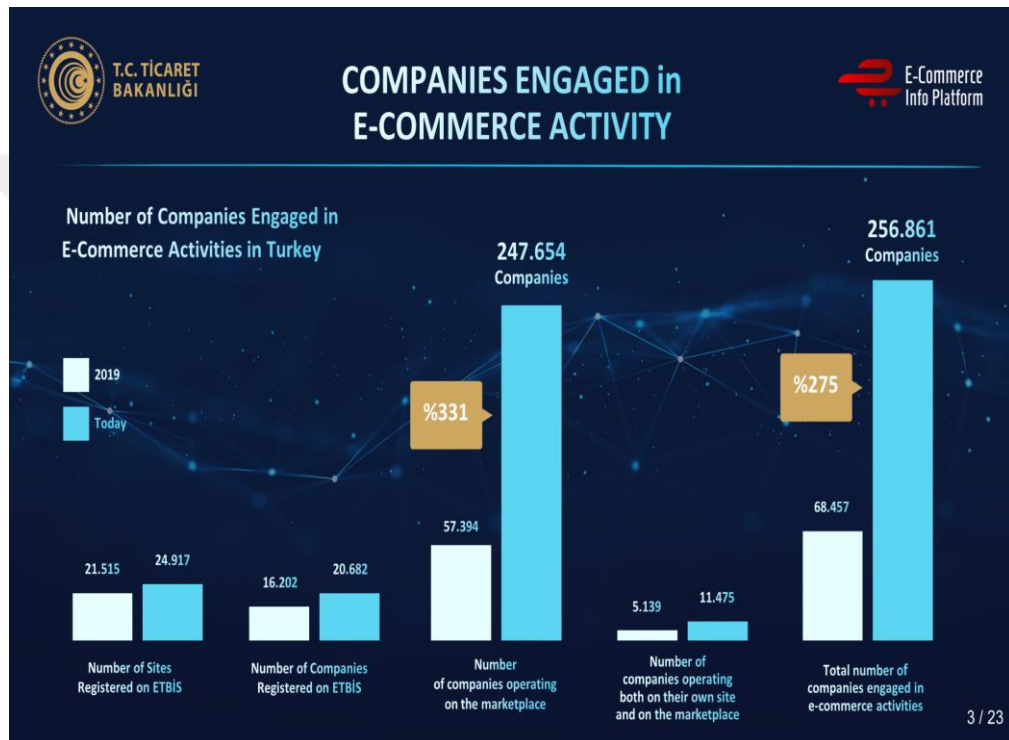


**Source:** <https://www.eticaret.gov.tr/istatistikler>

The Turkish government has been giving online training for e-commerce new entrants to build their business on online platforms. Above statistics declare the characteristics of online users along with their preference of training. According to statistics, total of e-commerce platform’s users were 1.113.151 E-commerce academy users that got access to were 48.439. For e-consultant required people the number was 60.755 while general platform user's %57 of them were male, %43 of them were female. Age ranges from 18 to 65+ had been analyzed to realize

the share of users. Most of the users were between 25-34 years old people with %31 share of e-commerce users. From 18 to 24 aged people had %16 share while 25-34 aged %31, 35-44 years old people %22, 45-55 had %10 and lately 65 and plus aged people had %4 share of platform users.

**Table 2.9:** Number of Companies engaged in E-commerce Activities



**Source:** <https://www.eticaret.gov.tr/istatistikler>

Above table shows the number of companies engaged in e-commerce activities between 2019 and 2020. While the number of companies operating in the e-commerce marketplace was 52.394 in 2019, it had increased to 247.654 with %331 rise. In addition to engaging with the marketplace, companies could also operate on their own website and their number was measured as 5139 in 2019 while it was 11.475 in 2020. After the engagement of e-commerce, online operating company numbers had increased from 68.457 in 2019 to 256.861 with %275 rise compared to the 2019.

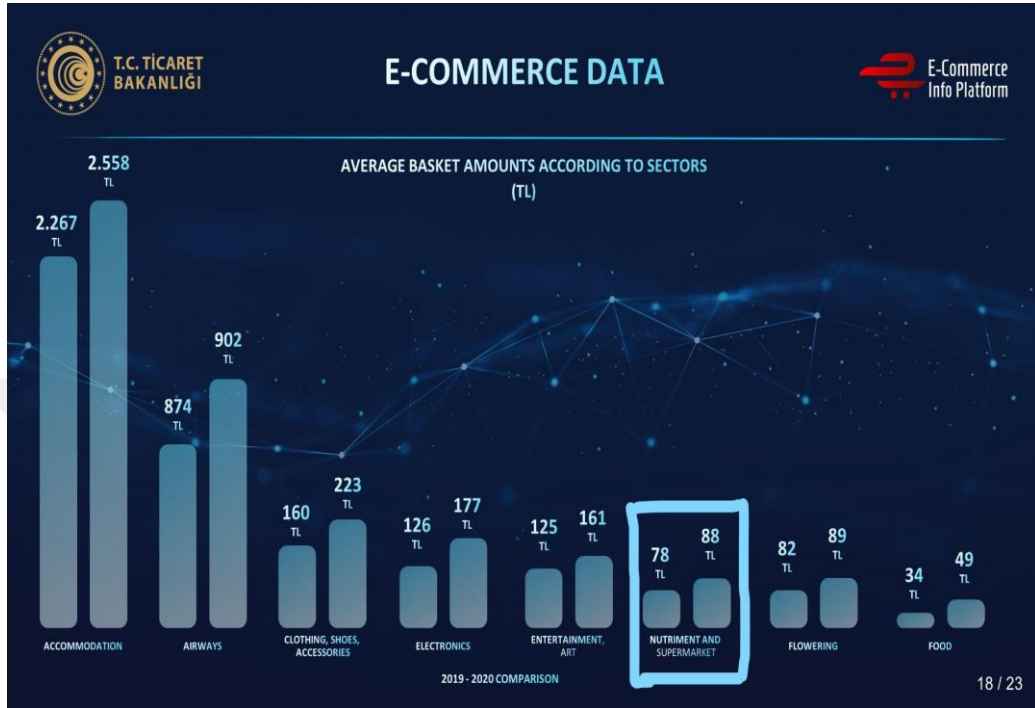
**Table 2.10:** Distribution of Companies Engaged in E-commerce According to the Cities



**Source:** <https://www.eticaret.gov.tr/istatistikler>

Distribution of e-commerce companies according to their location shows us the share of engaged company's cities. Istanbul has one of the biggest shares of deemed companies. 106.054 number of engaged e-commerce companies with %43 located in Istanbul. Second most located city is Ankara, with 21.565 companies having %9 share. Third, the most included city was İzmir with 17.165 number of %7 share of engaged companies. With %4 share Antalya and Bursa emerged by and the rest of cities could be ranked with %2 share were Konya, Kayseri, Kocaeli, Adana, Muğla.

**Table 2.11:** Average of Basket Amounts for E-commerce Spending's According to Sectors (TL)



Source: <https://www.eticaret.gov.tr/istatistikler> ( E-trade statistics, 2020).

Nutrition spending average basket amounts for e-commerce has been declared as 78 TL per individual. Highest basket amount belonged to accommodation and airway expenses.

### 2.2.3 E-Commerce of Food Supplements in Turkey

With the fact of globalization, the need for access to information makes the internet a new source of information. Daily increase of users and being an important provenance of information, its usage has been increasing accordingly. Today in Turkey, with the increased access to the internet, %92 households enjoy connecting to an online world whose big portion consists of users who are actually looking for information regarding health issues.

Drugs are in the top 10 bestselling products in Turkey according to the survey on

information and communication technology usage in households and by individuals conducted by TUIK in 2021.

Online Pharmacy concept has arisen after the 1990s with the increase of e-commerce which is for commercial purposes. The concept could be defined as online pharmacy which has similar actions like offline pharmacies similar to selling drugs according to prescriptions. In accordance with the study of Gondim, APS, Falco, C.B, it is explained as a concept where pharmacists realize selling drugs while making transactions without physical attachment between seller and user. It is also known as computerized pharmacy, e-pharmacy and virtual pharmacy (Crawford, S.Y, 2003) Some advantages for users why they have shifted to buy online drugs are;

- No physical effort to go to get drugs.
- Privacy issues are another important convenience.
- Doesn't matter if the pharmacy is far from home, it's convenient to order at home whenever they want.
- Variety of products might be more than brick and mortar pharmacies' stocks.
- Costs less not only for money but also in terms of time.
- Product information easy to access and its references.

Turkey adopted the law for code of online pharmacy more recently than Europe and USA countries. Regulations have been varied according to country to country to give an example, while they are allowed in Canada, Holland and UK, not allowed in Denmark. (Bessell, Anderson, Silagy, Sansom, Hiller, 2003) In Turkey, according to the law code for online selling pharmacies on 2nd of October in 2007, it is prohibited to sell drugs through an internet, telephone, courier and mediator. Its application was controlled by Turkish Pharmacist's Association and announced online drug selling is not legal and they will take legal action to those who don't close websites until 01.02.2008 (Medimagazine.com,2012). A survey conducted by Selen Yeğenoğlu in 2013 to see the difference after prevention with

the law of online selling drugs, after the regulation selected 40 e-commerce pharmacies had been still operating and their main characteristics were as listed below.

**Table 2.12:** Distribution of characteristics on the web sites of e-commerce pharmacies

<b>Characteristics</b>	<b>n (%)</b>
Membership	15 (45.5)
<b>Availability</b>	
Name of the owner pharmacist	8 (24.4)
Phone number	21 (6.6)
Fax number	18 (54.5)
E-mail address	17 (51.5)
Address of the sentinel pharmacies	19 (57.6)
Map	8 (24.2)
Search engine	16 (48.8)
Accessibility	33 (100)
Shipping	15 (45.5)
Privacy information	12 (36.4)
Notification	5 (15.2)
<b>Health education material</b>	
Contained	8 (24.2)
With reference	4 (12.1)
<b>Advertising</b>	
Not contained	17 (51.5)
Not about health	4 (12.1)
Drug information	18 (54.5)
Payment/Purchasing information	9 (27.3)

**Source:** Yegenoglu, 2013

All websites identified with belonged characteristic as listed Table 1 and observed that they had been mostly selling personal care products and medicines like hemorrhoid cream. Mostly realized characteristics was accessibility while the least ones were reference information giving for required information and did not

have irrelevant health content (Yeegenoglu, 2013).

**Table 2.13:** The distribution of e-commercing Pharmacies in Turkey

City	Number	%
İstanbul	13	32.5
İzmir	12	30.0
Ankara	5	12.5
Samsun	3	7.5
Antalya	3	7.5
Other	4	10.0
<b>Total</b>	<b>40</b>	<b>100.0</b>

**Source:** Yeegenoglu, 2013

Table shows the number of e-commercing pharmacies with the share of market and its located cities. Studies show that the e-pharmacy concept has not been well developed to overcome legal obstacles in Turkey yet.

#### **2.2.4 The Importance of Online Shopping**

Still in Turkey, people are receiving handwritten prescriptions from doctors which is still accepted as an effective way for pharmacists to figure out treatment. A study about what if Turkey starts e-drugs appliance with electronic prescriptions which is illegal now, how the medication would be safe contactlessly, declare that there is an increasing online food supplements shopping which refers to parallel need of drug sell through ease of access with lesser time and money (Dabak, Yıldız, Bulunmaz, Çeliktaş, 2021).

Especially after Covid-19, growth of online shopping had an unstoppable increase similarly in the health field. To give an example, German has started to sell drugs

online correspondingly to the USA, in those countries drugs with an electronic prescription could have been sold and sent by couriers as its first example, DocMorris (Prashanti, Sravani, Noorie, 2017).

In Turkey, drugs cannot be sold on the internet or in any other electronic medium. “Pharmacists cannot open websites on behalf of themselves and their pharmacies” regulation came into effect on January 18, 2014 with Law No. 6514. has entered. In case of promotion or sales over the internet, the Ministry of Health will immediately decide to block the access and this decision is submitted to the Information Technologies and Communication Authority for implementation.

Thinking of disabled and old people that might have difficulties and have no one to help them to take, online pharmacies could improve their wellbeing equally along with other people. Less contamination system prevents the speed of virus spread with contactless delivery option. While sick people should have rest at home, home delivery with green energy transportation like bicycles will reduce food prints and carbon emission (Küfeoğlu, Anaya, Pollitt, 2018). There might be an option to see pharmacists through online video chat. For privacy and security issues, encryption systems for payment with third party applications, for personal information privacy could be assigned and delivery tracking systems could be achieved to create a sustainable process. Online reachable customer service given through e-mail or social media apps to solve complaints and increase efficiency by using forms. Online pharmacies will mostly reach older and working people who have no time to shop after working hours. Employees don't have enough time and energy to look for the nearest pharmacies which also results in the release of carbon emission. Another perspective of destructive effect on nature is the use of paper for prescriptions. Moreover, with online pharmacy innovations, the system adopts an e-prescription process that leads to decreasing need to use paper and ensures the reduction of harmful emissions.

Technology acceptance model is considered a constitutional approach for the

adoption of e-shopping. It is a model clarifying consumer acceptance of e-shopping and attempts to define it with external and internal factors. Information quality given on websites with the perceived joy of consumers while surfing, trust during transaction and sharing personal information along with the system and service quality specifies technology acceptance model of consumer.

During the interaction with e-commerce, there are some sub-dimensions to measure perceived enjoyment of users (Lingyun and Dong, 2008). Enjoyment acts like a link between perceived ease of use and perceived trust to lead to an increase in online shopping. More enjoyable websites in terms of design, gamings, etc. makes the shopping experience joyful, attractive and effects directly re-buy intention (Lee, 2003). Therefore, enjoyment found out that it's a positive effect on customer satisfaction. Pleasure feelings that arise during interaction with the website had an important positive effect on overall experience with the website (Davis, 1992). In accordance with the theory of reasoned action, behaviors are determined after a certain type of behavior and its consequences by a person's attitudes and norms (Shih, 2004). Behaviors resulted by an individual's attitude and norms are determined by overall evaluation of performance which is called planned behavior. Related to the theory, an individual's evaluation affects behavior's intention relative to actual behavior. A person develops a positive attitude toward a brand, they have a stronger adaptability to shop online from a brand's website and they are more motivated to do it again (Celik, Yilmaz, 2011).

There are some significant constructors derived to figure out the quality level of e-commerce websites. First to mention is perceived information quality. People who search for a product online, carry the feeling inside that being supported by websites with the right information then the right product of the need. Information quality refers to the characteristics of information used to measure performance of an information system (Shih, 2004). If the communication realized during e-shopping with the share and exchange of the information provided is constituted by the manner of consumer oriented, service quality which is another constructor

of the quality level for website is relatively high and affects positively to define characteristics of information systems (Liao and Cheung, 2002; Shih, 2004). Information systems have another determinant namely System Quality which is the assessment of the website. Consumers interact with the website during transactions and they share information relatively. With the information they have perceived and supported by the functions determine the service quality they have received. Hence the determinant of perceived quality affecting trust acceptance on website facilities and operations refers to defining the measure of websites' quality (Shih, 2004; Liu, Arnett, 2000)

Comprehensive knowledge users require that affects consumer perspective which is quite significant for online shopping. While individuals decide to buy a product or service, they have a chance to compare among varieties and decide in many aspects especially according to the price. Decision process is affected by some factors like economic and demographic features. To clarify and understand online shopping trends it is important to understand users' circumstances as a determinant of the decision process. Research made by Alam et. al. (2008) conducted among Malaysian youngsters, it is found that consumer service and information quality along with the website security options have a relative effect on online shopping attitude. Nowadays, the growing need for the access of information and increasing demand to get online services like e-banking, online education and commercial meetings, explains the importance of e-commerce influencing our lives in every aspect. In Turkey, the proportion of persons acquiring or purchasing products or services online for personal use increased from 18.4% in 2015 to 29.3% in 2018 and 34.1% in 2019; it was 18.4% in 2015. (TurkStat). Not only does online shopping help customers to save money and time, but it also makes the whole purchasing experience more efficient (Radionova-Girsa et al., 2019). Especially after Covid- 19 pandemic, the percentage of online shoppers has been increasing rapidly due to the change of purchasing trends developed and shifted to online platforms rather than traditional stores. Changing the shopping environment and using time efficiently will support that trend to increase day by day.

Factors affecting consumer buying decisions researched by Topaloglu (2012) conducted among 299 participants focused on motivations and interests of online buyers. As a determinant of the study, hedonic value of browsing was declared as an impact on intentions and has a direct influence on buying decision and also security issues have another significant impact on buying decision. In another research study by Nagra and Gopal (2013) used multiple variances, demographic factors like age, income level and gender have an impact on online shopping approaches. Correspondingly Akhlaq and Ahmed's survey was conducted to analyze that various aged users differ in gender and found out that they have different attitudes. According to the test, Women prefer and enjoy online shopping rather than men. Influence of users determined by satisfaction factors found out that security, service and information quality along with delivery commitment and price performance in research conducted by Vasic et al. (2019). In other research, it was determined that education level impacts online shopping attitudes may be resulted by having less time because of working at more intense jobs, mostly work on computers. Compared to blue collar workers, white collar employees intended to search online as a convenient way to save time and effort (Karaaslan, 2021).

To obtain information via the internet has become an important need of people especially about health topics. %4.5 of online information searches are reported about health issues and it has been increasing rapidly. Mostly in developed countries higher educated people take care of their health and the internet has become their main source to search about diseases, symptoms of illness and its treatment (Wootton, 2012). As it's easy to access and available 24 hours a day, people get advice and consultation from (Gregorio, Cavaco, Velez, 2014).

Turkish web-based pharmacy care settings have been studied by Taie, Yılmaz in 2020 to determine the types of online pharmacy services contributed by clinical pharmacists to analyze medication problems. For the patients who are seeking treatment and medication service with online counseling, WPCS could be an alternative way for pharmacists to provide health care services to improve

treatment counseling service to update pharmaceutical approaches. With the modernization of service, professionals practice to evolve archetypes from traditional ways of direct contact to patients to medication counseling practices that are more active and expanded clinical roles.

Pharmacists are considered as an ease of access to receive health care counseling due to the large population of people in need of healthcare services. Therefore, they play a crucial role to enhance healthcare services correspondingly to quality of life (El Hajj, Salem, Mansoor,2010) With the help of pharmacists it's easier to strengthen the scope of practices and will considerably improve patient health outcomes (Al-Taie, Köseoğlu, 2019). With a well-founded communication lead trustful relation between patient and pharmacist, patients receive comprehensive counseling from professionals and decrease the feeling of morbidities. Therefore, pharmacists' intervention to online care services provides proper information along with the verbal or written form of an accurate medication treatment process which prevents mistreatment and misuse of drug related problems and its side effects. With the help of professional counseling, patients could ensure that they received an effective medication therapy to improve quality of life (Hassali, Shafie, Khan, 2012). Therefore, online healthcare service with the pharmacist's intervention could improve the interaction with patients and counseling services to sophisticate healthy lifestyle and increase the awareness of the use of optimum medicine for a deemed disease's treatment (Al-Taie, Köseoğlu, 2019).

### **2.3 E-LOYALTY**

To create a competitive advantage, companies essentially focus on the establishment of brand loyalty to achieve sustainable maintenance of market growth. With gained loyalty, companies could achieve lower selling and distribution cost with premium selling price which higher their profitability. With the help of loyal customers, companies enjoy being a strong barrier against the new entrants for the market (Reichfeld, 1996). Throughout the time, the traditional

market shifts to the online area, business perspective mostly turned into gaining a loyal customer, by the new strategy is to receive increasing revenue with higher sustainable profit through e-loyalty (Porter, 2001). With the new era emerging after e-commerce, acquiring loyal customers by the websites has expanded its importance. Through the new perspective, collecting customer databases and targeting them to transform a loyal customer has begun to be a new object to be achieved for sustainable profit rather than having a large number of customers (Smith, 2000; Reichfeld & Schefter, 2000).

Brand loyalty has been divided into two concepts as behavioral and attitudinal loyalty in traditional marketing articles. Its conceptual framework has been defined by categorized dimensions with cognitive, affective, behavioral intent and repeat purchase actions (Oliver, 1999). According to the definition of Oliver 1999, brand loyalty is a continuous action to repurchase and the promise given by the customer to rebuy a product or service in the future. It is also defined as a switching behavior from traditional brand loyalty to e-loyalty with repeated buying intent from the same brand, similar product or service. Another definition made by Schultz 2000 is considering brand loyalty in online places as a revolution of marketing concept that changes a traditional marketing environment from company controller to consumer empowered, distribution channel directed and technology driven concept. However, there are some significant common attitudes of brand loyal customers, some obvious differences come out of being a customer online.

### **2.3.1 Attitudinal Loyalty**

Attitudinal loyalty consists of dimensions conceptualized as cognitive, behavioral and affective intent. With the customization of information searched online in e-commerce, technology could make combining cognitive dimensions easier that builds brand reputation instead of traditional advertising tools used through the mass media.

While trust and security are the main components of e-loyalty, privacy is another factor that strengthens the affective power of the attitudinal loyalty dimension. To be owned by a positive attitude of a customer, satisfaction is another aspect to lead loyalty and create a favorable approach toward a brand. Since satisfaction is the main component of loyalty, it results in a positive attitude toward a brand, which leads to having more loyal customers.

### **2.3.2 Behavioral Intention**

There is a link between attitude and behavior that is defined as behavioral intention which is an action emerged during the buying process (Mittal & Kamakura, 2001). It is classified with two-dimensional action to be taken while re-buy a product/service and positive approach of thinking to re-buy from the same company. In Oliva & Oliver's has found some factors in their research related to brand loyalty and clarified them as sustaining and aggregating re-buy attitudes, which have been transformed into actual buying action (Oliva & Oliver, 1992). According to Strauss & Frost, e-loyalty is converting intentions from behavior to buying action (Strauss & Frost, 2001).

### **2.3.3 Behavioral Loyalty**

There are some aspects used in the definition of traditional behavioral loyalty that also have some different expressions toward a brand when the shopping environment turns online marketplace. However, it has been described as continuous buying behavior, there is another aspect linked directly to brand loyalty which is spending time on websites and repeating this action without buying anything. Customers can repurchase a product/service from the same website and repeat the action or visit frequently without buying anything (Corstjens and Lal, 2000). Time of online buyers spend on websites and frequent visits should be considered as new touch points for e-loyalty figures to be investigated (Smith, 2000).

Satisfaction is the main component of brand loyalty (Schultz,2000). Some reasons underlying to become loyal customers for websites or a brand are time efficiency and finding a variety of products with lesser price. But if the customer rebuys a product or service due to the higher satisfaction from previous experience, they tend to be more loyal. Extensive impacts for the purchasing online preference are the given ability for customers to obtain required information makes behavioral loyalty harder to achieve in e-marketplace than physical stores (Gommans, Krishnan, Scheffold, 2001).

## **2.4 DRIVERS OF E-LOYALTY**

In this chapter trust and security perception of a person has been defined with numerous studies along with classified dimensional relations. Trust and security concept of online sale of food supplements providers has been investigated by mentioning privacy as a scope of e-commerce approach by an online consumer to share private information and its storage. Also, third party appliances have been explained to provide merchant commitments for privacy and security statements clarified as company policies and security features through encryption and password protection.

### **2.4.1 Trust and Security**

#### **2.4.1.1 Trust Perception of the person**

Trust as a notion has been defined with different aspects in numerous studies. (Schurr & Ozanne, 1985). Doney and Cannon says it is a seller and buyer relation between trading parties (Doney & Cannon 1997), it is a romantic relationship (e.g. Rempel et al., 1985).

In some studies, it has been clarified with three divisions;

1. inability to affect the results

2. possibility of personal injury as a result of the engagement
3. ambiguity over the results of an encounter.

In this study, some combined descriptions are placed in this study to understand the definition of online buying and how it is driven by. Different theoretical perspectives have been used in these studies, which may be aggregated into three categories (Lewicki & Bunker, 1995)

Trust occurs as a result of three different dimensional relations. (Hardin1992) Trustor, trustee and the context that is trust expected to be established. Online buying trust dimensions consist of online sellers and external factors which affect payment methods. Third party recognition leads to protecting online buyer's information which helps to increase trustworthiness of online sellers that also improve the contribution of online shopping. Privacy controlled by third parties refers to the law practiced during transactions that affects the legal framework positively during the conceptual model of trust of internet shopping. (Cheung, Lee, 2000)

Instead of increasing numbers of online users, internet shopping is not growing as fast as online penetration because of the lack of trust felt by shoppers [ Hoffman et al., 1999]. To well understand the trust concept of online shopping, we need to investigate the nature of trust in specific subjects (Cheung, Lee, 2000). Buyers are affected by two conceptual factors which are "independent variables" and "online buyer's credibility" (Cheung, Lee, 2000)

There division of trust concept has been aggregated in this study (Lewicki & Bunker, 1995):

- 1) According to psychological aspects, early psychological development is relevant with a person's trust, belief and expectation.
- 2) Related to sociologists and economists' definitions, the notion of trust is a

conceptual relation between individuals and institutions.

3) Developing and maintaining a trust between buyers and sellers through sociologists is achieved by engaging or characterized trust party engagement between buyers who are defined as individuals and institutions namely online sellers in this study.

Personal traits are the most relevant factors used while defining online trust of buyers which is also crucial to understand trust concept by consumers' psychological aspect (Cheung, Lee, 2000).

Mayer et al. 1995 mentioned three factors to measure credibility of online sellers - competency, reliability and salutory which are highly relevant with the trust concept of internet shopping. To investigate the nature of online shopping, some other interactive factors needed to be mentioned such as Security and Privacy properties of online vendors, integrity and competence by online buyers. (Cheung, Lee, 2000).

With the help of understanding trust conceptual framework, online sellers better establish e-business strategies by investigating the scope of consumer trust to repeat online purchase. (Kong, Hung, 2006)

Higher online trader trustworthiness perceived by buyers, leads to stronger buying intentions from a customer (Büttner, Göritz, 2208).

#### **2.4.1.2 Privacy and Security**

With the rise of e-commerce for consumed products, likely privacy concerns have been raised among online shoppers. They have serious trust issues with sharing personal information. In the latest research, it is found out that there are six features of e-commerce companies that should be investigated by users which are ease of order fulfillment, reputation of a brand, ease of use, improved navigated

directions, appealing design of website, and indispensable security features. Some features of a website should be investigated to build a trust relationship with customers namely third-party security options, privacy statement, personal information privacy agreement and security features (Cheskin and SA, 1999). Furthermore, to the adaptation of security features, assurance given to visitors is another crucial step to apply on the website. Lots of scholars pointed out that after gaining customer trust by enhancing security assurance, customers start to investigate other features (Dayal et al., 1999; Hoffman et al., 1999; Ovens, 1999).

Research conducted by Belanger, Hiller, Wanda, Smith in 2002, indicates that most customers pay more attention to security features compared to other indices. Results conducted from their research shows that trustworthiness according to customer perception differs from professionals' site usage assessment of trust indices. Another result considering the customer decision process to give private information reveals that customers decide according to their belief of trustworthiness for a merchant that doesn't matter if it's an online or offline store (Belanger, Hiller1, Wanda, Smith, 2002).

Despite the incredible rise of retail shopping shift to e-commerce in the last years, some research has been conducted to investigate privacy and security concerns of online users. Correspondingly, gaining public trust has become the key entry barrier for the new entrants to the market. Companies which are using security and privacy features at optimum level enhance to build and promote trustworthiness in e-commerce. However, there is still misunderstanding of privacy and security regarding them as distinct concepts and their relation in between (Belanger, Hiller1, Wanda, Smith in 2002). Harris, 2001 research shows that privacy information storage is confused with the information shared with privacy concerns. Another aspect Harris pointed out in his study is the terminology misused of the websites for privacy and security concerns like safeguard assurances is used for the reference of privacy and security (Harris, 2001). Those misunderstandings lead some discussions about what features of the

optimum safe guarded e-commerce sites and how it should decrease the concern of consumers and how to transmit these features on websites (Dayal et al., 1999; Woodlock, 1999/2000).

For the companies engaged in online marketing, some details in this research enable some e-commerce owners to be more aware of privacy content and improve the fair practices for the privacy codes of information. Relevant political attempts are centered on privacy and security concerns, aiming to regulate consumer-related e-commerce by forcing the disclosure of specific privacy- and security-related behaviors (Miyazaki and Fernandez 2000). Changes in online merchant procedures that are judged to be consumer-friendly would presumably boost buyers' confidence and decrease their perception of risk as they gain more Internet experience. In contrast, media reports about these concerns and unpleasant online experiences may reduce consumer confidence by exposing the possible hazards associated with online buying, therefore discouraging Internet users from making online purchases (Judge 1998).

#### **2.4.1.2.1 Privacy**

Privacy in the scope of e-commerce is clarified as the approach by an online consumer to share private information with the website to finalize the purchasing process. In the context of consumer online activities, privacy often refers to personal information, and an illegal act is typically defined as the unlawful collection, disclosure, or other use of private data as a consequence of electronic commerce transactions (Lee, Wang, 1998). Consumers are significantly concerned about the privacy of information sharing to websites due to the risk of collecting and sharing customers' information which makes them reach full potential. However, personal information doesn't change dramatically over the time it refers to health, financial, beliefs and personal information while some others change dramatically like history and content activity (Lee, Wang, 1998). A survey conducted by Business Week in 1998 among USA civilians, most of

them believing that they have lost the control of private information collection by websites about how they use and save all? %78 of participants believed that information given is inappropriate and rejected to share while %54 of them preferred not to buy online due to believing it is not secure to share transaction information. Majority of participants responded that information sharing is a worrying situation to protect personal information against an unsecured environment (Branscum, 2000). Some other researches' participants believe that companies should ask the consent of consumers before collecting their information. And some others did not prefer to share information due to its security, transmission and the risk of sharing with third parties (Harris, 2001). Abuse of children's information was also investigated as a main consideration of Paul's study in the aspects of misuse of information, identity and financial theft (Paul,2001).

With the increased use of the internet for variable needs like entertainment, shopping, health information seeking leads some privacy and security of information concerns during the experience. Risks to share private information in the course of the implications for online commerce arises some hesitations about how the data is secured and shared with third parties. By the governments and organizations some legacy clauses have been provided about the declaration of the user's information for the development of e-commerce and consumer prosperity (Miyazaki, Fernandez, 2001). With respect to internet use as a tool for variable needs, information exchange has been gaining importance by marketers to build their strategy accordingly. These concerns enhance marketers to reach target customers' needs and interests to meet required demand in the online retail market. Perceived risks arise from the share of accumulated customer data that may be experienced by customers with respect to these marketers' needs (Ernst & Young 1999; Milne and Boza 1999; Milne 2000). Some studies have claimed that consumer risk perception arising from security and privacy of information is the main restriction for the growth of e-commerce (Miyazaki, Fernandez, 2001) while other research affirms that risk perception is an adaptation process between

consumer and online trader (Jarvenpaa and Todd 1996-97).

At Miyazaki and Fernandez's study they have investigated the relation of the level of internet users' experience with perceived risks of information data sharing. According to Briones 1998, declared consumer reports online there are two significant concerns about online shopping is privacy and security labeled by government and shopper organizations (Briones 1998; CL1 1999; CNN 2000; Consumer Reports Online 1998; FTC 1998a, 2000; Folkers 1998; Judge 1998; Machrone 1998; National Consumers League 1999). Privacy and security of shared data information is legally and ethically given right to consumers by government and institutions (Bloom, Milne, and Adler 1994). To maintain the privacy rights of consumers, secure data storage and its legitimate privacy is the first and privileged right given to users (Jones, 1991). Users that have experienced online purchase who have no concerns about the collection of private information data believe that privacy and security is an essential step to maintain privacy (Rohm and Milne, 1998).

Turkey for the protection of online data share, completed the final step in April 2016 and executed the Law on Protection of Personal Data No. 6698 as Data Protection Law. Before the date Turkey didn't have any protection law against data sharing. After the approval of the President, its final text was published in the Official Gazette on 7th of April in 2016. A broad restriction on the processing or storage of personal data without agreement of the parties from the data subject came into force in Turkey on this date, with limited exceptions where such consent is not necessary. Companies that stored personal data before to April 7, 2016 were given a two-year time frame to verify that the data complied with the new legal standards. Moreover, the Personal Data Protection Authority ('KVKK') has outlined the basic components that must be included in the agreement for cross-border data transfers between the data producer and the data exporter. In addition, the KVKK has developed new paperwork requirements for the Binding Corporate Rules in order to govern interpersonal and group transfers. Constitution does not

only refer the protection of information but also includes Privacy of private life where every person has the constitutional rights such as;

- A user should be informed about which personal information is collected.
- A user can ask the protection of shared information
- A person can access the information, delete and revise.
- A user should be informed about the information that has been used according to the consent given.

It has been applied to data controllers since 24th of March 2016 in accordance with Article 7 of the Law on the Protection of Personal Data No. 6698.

Those changes in e-commerce procedures that are considered more consumer-friendly likely boosted buyers' trust and decreased their perception of risk to have more Internet experiences. On the contrary, news about these concerns and unpleasant online experiences may reduce consumer confidence by exposing the possible threads associated with online buying, discouraging Internet users from experiencing online purchases (Judge 1998).

Consumer adoption after the privacy of information consent of online shopping has increased considerably due to the reducing concerns about information storage and sharing. Updates came to consumer privacy and personal data protection for the digital world enhanced user rights for e-commerce relatively for the marketers need to reach the right customer with an effective message. Issue emerged for marketing communications created to reach target customer results in tracking users surfing patterns with cookies, collecting and sharing them with third parties. Cookies are pieces of information that a website stores on a consumer's computer in order to identify regular customers and customize the shopping experience. Concerns over cookies, which are used to identify repeat visitors and personalize the online shopping experience, may start to decrease when consumers learn that cookies typically cannot access data other than that already provided to the website by the consumer (FTC 2000). On the other hand, the internet has been

acknowledged as the most innovative way of transactions where it is not possible to have in brick and mortar retail shops. It is safer way of transaction rather than a remote way of buying through phone or mail order where only received a few non-commercial information that users share during transactions (Cox and Rich 1964). Online retailers' efforts to gather, utilize, and disseminate data on customers and their purchasing habits are often the focus of internet privacy concerns, while consumer-related internet security concerns typically entail the encryption of transactions to prevent third-party fraud or theft (Machrone 1998).

Some categories to summarize customer concerns of online shopping could be defined as first privacy consists of unauthorized personal information, previous buying habits collected by cookies and contact information gathered by retailers sent as junk emails. Second is the Security System that is innovated to prevent cracks by frauds or thefts to receive financial, personal and payment information of individuals. Third consists of online products fraud information given to users like misrepresentation, non-delivery or counterfeit of product mostly arising during supplements' purchase (Miyazaki and Fernandez 2000).

Online tracking has become another aspect of private information sharing concerned by users thinking that it's not legal and should have restrictions on it. Some tracking methods are used by websites with the approval of users as one of them is cookies that track users' surf map following online fingerprints. For online advertisements, tracking users' search history with cookies helps to collect vital information to understand consumers' preferences. Microsoft, as an example, tracked MSN user's information and their practices of all activities with subscription for a marketing purpose. Nowadays, companies offer an opt out option which wasn't an applicable offer to members. (Wang, 1998).

Some privacy disclosure activities could be classified with the following details;

- Penetrating a user's computer without any notice to inform a customer

result in the disclosure of private information to others who should not have access to it, which often leads to the collecting of such information for the purpose of marketing (Wang, 1998).

- Gathering information of customers online without any notice such as private information like email, phone number, address, and web search history (Wang, 1998).
- Monitoring search activities by cookies, lead companies to watch and investigate the interest of consumers to use for online advertisement without any notice (Wang, 1998). Likely, “Spam” with another explanation “Junk” emails arouse as a result of usage tracking and the distribution of data collection lead marketers to understand customer’s perception (Hoffman, 1999).
- Analyzing gathered information to have a conclusion for users’ payment choice, buying behavior and attitudes.
- Transferring that information without consent of a customer to third parties for marketing issues like many of those to distribute, share of their customer database that involves email addresses.

This considerable increase of concern constitutes the countries’ privacy standard and its lawful restrictions for online tracking of companies (Belanger, 2002). As a summary, privacy can be defined as a conceptual framework of websites adopted to have the ability to manage user’s information (Belanger, 2002).

#### **2.4.1.2.2 Security**

According to Kalakota and Whinston, security is the situation of conditions or events that cause economic difficulty through denial of service, data modification, fraud, or abuse (Kalakota and Whinston, 1996). It's a chain of attitudes to protect a person or an institute towards threats. Online threats are diversified as data or network attacks implemented through mistakenly given authorization mostly during transactions where a customer information has value. Economic difficulty is the most harmful effect on privacy along with reserved credit card information.

In the B2C (business to consumer) e-commerce industry, security is defined as protecting and securing visitors' data. Some technologies developed for the protection of information by authorization and cryptography. These adaptable security features lead companies to be reliable to gain trust by the consumer. Environmental control refers to customer apprehensions about providing information online due to expected dangers of online security to be in danger by hackers and information thefts. Beyond information fraud, there is one more important fraud applied by e-commerce companies: Online Retail Fraud means counterfeit supplier of goods or misconduct to users' attention through not sending delivery.

#### **2.4.1.2.3 Privacy and security statements and third-party verification**

E-commerce merchant commitments for privacy and security statements clarified in company policies and security features through encryption and password protection. Some special tools to realize third party confirmation are available online for e-business owners to enhance trust and build loyal customers. Authentication, non-repudiation techniques assure data security while identifying the participants in the buying process with the specific terms of contract signed between merchant and user. Among third party tools, password savers are mostly used in the authentication process. The major suppliers of authentication technologies are Verisign.com and Authentidate.com (Gommans, Krishnan, Scheffold, 2001)

Information collection for data shared by persons secured by third parties as an example TRUSTe states that "you are the authority over your personal information to secure your privacy." Right after running the program, merchants are allowed to enhance third party security participation. It has been increasingly used by e-commerce companies to show their commitment to privacy and security issues that increase effective loyalty relations. Research showed that a third party sign refers to protecting information and allowing security realized by customers,

they are more likely to share personal information (Harris,2001). Another study reveals that the majority of participants feel more confident when they understand privacy statements and consider that the merchant won't misuse the information (Pastore, 2001). Most of the research has found positive correlation between third party participating websites with privacy and security concerns (Newsbytes, 2002). To give an example from Miyazaki research results, seals shown for privacy and security statements make the merchant perceived positively with customers' propensity to buy from the website. Yet it is a fact that the seals might not be realized well by consumers. Web users know less about the privacy and security seals than they know about the technologies the website uses like cookies and password protections (Cheskin and SA, 1999). Only 25% of users realize the seals that the website employs (Harris, 2001).

#### **2.4.2 Brand Trust**

Trust is a generalized expectancy held by an individual that the word of another can be relied on (Rotter, 1967). The construct has received extensive research attention in the domain of inter-organizational relationships (Anderson & Narus, 1990; Hakansson, 1982; Morgan & Hunt, 1994; Ring & Van de Ven, 1994; Doney & Cannon, 1997; Smith & Barclay, 1997), but has only occasionally been applied to the consumer market context (Gruen, 1995; Hess, 1995). Hess's (1995) initial effort to develop a brand trust scale revealed that a brand is trusted by the consumer to the degree that the brand is perceived as being altruistic, reliable, and honest. In keeping with this, brand trust is defined here as the consumer's willingness to rely on a brand in which he or she has confidence with regard to the brand's reliability, honesty, and altruism. Reliability is the perceived dependability of the brand's functional performance. Honesty refers to the consumer's perception of the degree to which the brand's organization communicates brand-related information honestly and truthfully. Altruism is the degree to which the consumer perceives the brand's organization as being unselfishly caring about its customers as well as society as a whole. Relationship

marketing literature has documented trust as an important determinant of commitment (Ganesan, 1994; Hakansson, 1982; Morgan & Hunt, 1994; Moorman, Zaltman, & Deshpande, 1992). Trust provides the essential basis for relational contracts and social exchange (Blau, 1964; Rousseau & Parks, 1993), and has been viewed as a critical feature of relationship quality due to the perceived risk associated with any relationship and the outcome thereof (Anderson & Narus, 1984, 1990; Dwyer, Schurr, & Oh, 1987; Moorman et al., 1992). In the consumer-brand relationship, risk exists because a typical consumer has limited resources (i.e., time, money, market information, etc.) for acquiring products, and therefore, is in a vulnerable position as opposed to the marketing organizations. In the presence of such uncertainties, in order to establish a high quality brand-consumer relationship, it is essential for the brand to be perceived as being reliable and dependable, and the firm honest, trustworthy, and acting altruistically for the consumer's welfare. Consumers will choose to purchase and use only reliable brands from trustworthy companies; mistrust will only serve to decrease the consumer's commitment and shift the consumer-brand relationship to one that is more short-term and transaction-oriented. In contrast to the transaction-specific, transient nature of satisfaction, trust is built on the perceived reliability, honesty, and altruism of the brand and should evolve through multiple consumer-brand interactions. Satisfactory transactional episodes in the evolution of the brand consumer relationship, along with the firm's history, reputation, marketing communication, and positive word-of-mouth among consumers, should contribute to the development of brand trust. As such, the model hypothesizes satisfaction as an antecedent to trust and commitment as an outcome of trust

### **2.4.3 Brand Commitment**

Community with a general description is an approach developed in a virtual environment by a bunch of people that has a long term attachment (Rheingold,

1993). Another definition made by Jeppesen and Frederiksen (2006) is brand community is an active participation by a group of people in an online and offline environment who have similar interests with common endorsements. Information that is sought by customers is affected mostly from brand commitment given by a company that affects the brand evolution process. Giving a purchase decision is involved by negative feelings and comments recognized by customers for a company's product. In this situation, consumer attitudes change accordingly due to destructive information. Cognitive practices are influenced by beliefs gathered from online and offline environments and affect a customer to turn into a brand advocate (Jain & Maheswaran, 2000). Furthermore, less brand loyal customers are targeted by competing firms because they want a distinct information that specifically focuses on their product demand (Raju et al., 2009). Such customers are more likely to acquire competing products due to the lesser information assessment procedure, the endorsed brand and competing brands have certain characteristics.

Increasing healthcare costs and a declining confidence in domestic health services has given rise to a segment of consumers who are more health conscious and motivated to seek out products that promote healthy lifestyle and well-being (Lewis, 2008). These consumers espouse the adage that “prevention is better than cure.” This research presented a model that examined variables critical in the e-brand building process for e-loyalty. Critical aspects to indicate that brand credibility, commitment and connection are essential in developing a branding strategy for brands. A trustworthy brand reduces risk and boosts customer confidence. In 2011, Elyria Kemp conducted a study, and the findings show that a consumer's attitude toward a brand and motivation to buy may contribute to healthy businesses' trust. Additionally, customers may be driven to buy healthy products not just due to their familiarity with the brand, but also due to their favorable emotional response to the brand. Repeated purchases may lead to brand commitment, in which customers build both psychological and emotional links to the brand. When customers feel that a brand is credible, buy it regularly, and are

dedicated to it. The brand which values such significance that the consumer utilizes the brand to develop desired self-image or self-concept.

Another important impact on brand commitment is to build brand credibility. It is a belief of customer trust on brands' specialization for affirmed service and product (Erdem and Swait, 2004). Companies should utilize and deliver sustainable commitments to increase customer confidence and trust to minimize risk (DelgadoBallester and Munuera-Aleman, 2001; Knox, 2004). Companies evoke a higher degree of customer trust, perceived as being humanitarian, reliable, and honest. With this owned perspective by consumers, the company may foster trust and confidence in that brand. Consumer perception is linked with honesty which refers to the trust degree of a company's brand related information. Being a humanitarian organization indicates that consumers perceive a brand as being unselfishly caring about its customers, society as well as nature as a whole. Consumer trust refers to the willingness of relying on a company that considers these aspects to higher consumer trust to create reliability. Depending on this, brand commitment is linked with brand trust which arises by reliability, honesty and humanitarian beliefs and actions of a company (Wang, 2008).

Relationship marketing is another essential effect of creating brand commitment (Ganesan, 1994; Hakansson, 1982; Morgan & Hunt, 1994; Moorman, Zaltman, & Deshpande, 1992). Trust is a contract that arises after the relationship between a consumer and company (Blau, 1964; Rousseau & Parks, 1993). In connection with this, relationship quality is the essential basis to associate with positive outcome of customer to found a trustful relation to become a loyal customer (Anderson & Narus, 1984, 1990; Dwyer, Schurr, & Oh, 1987; Moorman et al., 1992). In this relationship due the limited customer source of money, time, health product and service information, some risks arise to buy a product. With this unreliable environment, companies' attitude by being reliable, honest and considering customer's welfare more than profitability is important to found a high-quality consumer relation.

Trusting consumers are willing to pay higher to committed brands (Netemeyer et al., 2004). For a strong brand strategy of health companies, it's also crucial to understand pricing information impacts on consumer choice (Chitturi et al., 2010). Therefore, enhancing pricing point of view plays an important role in building reliable customer relations for health products/services that integrate directly to consumers' health or motivated consumers for wellbeing. These are the customers mostly seeking for a product to get maximum support of nutrition (Turcock, 2008). Customers taking nutritional supplements are mostly conscious about brands that are committed to promises. Therefore, the choice of brand has been realized according to the company's having a good reputation for its commitments. Consumers, aware of a healthy product's commitment, will decide to buy a service or a product from trustworthy companies if the relation doesn't turn into mistrust which will shift the consumer - brand relation into short term relation.

The Online Brand Community is a group of individuals who communicate with one another over the internet. Therefore, users who have an interest in the same brand may interact, discuss, and exchange their experiences and information about the brand (Sloan, Bodey, and Jones, 2015; Wu and Fang, 2010). Therefore, Online Brand Community is a beneficial tool, allowing customers to easily discuss, exchange, and seek for more information about the company's product and service. (Sloan, Bodey, and Jones, 2015). Through online communities, consumers have the opportunity to share their experiences gained from using the product about the commitments given by a brand. And also mentioned about his/her experience if they want to continue their engagement with certain brand items or will terminate the relationship. Less commitments given by a customer will negatively affect long term brand-customer relationship by the attitude of customer to stop buying and providing positive comments on the brand/product (Walsh et al., 2010; Liu et al., 2018; Shuv-Ami, 2012) Unless strong brand advocacy fosters brand commitment which helps to diminish unwanted influences. To create a long term relation with online consumers to support and

buy regularly for a brand, influencers play a crucial role to found and maintain strong relation with new and owned customers. Being brand advocate of an online brand or website is getting importance after the rise of social media and influencers credibility. Digital media tools enhance the increase of attention by customers which are blogs, social media accounts on twitter, facebook, instagram and community websites (Hoffman and Fodor, 2010). Throughout social media, people tend to create more content about brands, products and their effects on lives with the great access of information (Urban, 2005). Consumers speaking loudly on digital media become a significant source for the companies to commit and utilize future strategy (Wilk et al., 2018a, 2019). Digitization of marketing creates its own community that conveniently communicate and express and exchange their experience (Sloan, Bodey, and Jones, 2015; Wu and Fang, 2010) while sharing more accurate information.

In order to build a high-quality relationship between customer and a brand, some critical characteristics should arise during a relationship like being honest, trustful, and paying more attention to customer needs than profit. Brand trust is defined as an indispensable feeling individuals must hold to create reliable relations with the company (Rotter, 1967). Only reliable, honest, and humanitarian brands could lead the development of brand trust concept by consumers which is also defined as customer willingness to rely on the brand. When a brand gives reliable information truthfully about the product and service, honesty has been flowing through leading higher trust perception by a consumer. Humanitarian brands refer to the company as being altruistic in behavior that takes care of customers and society as a whole.

Trust is a crucial aspect of quality relationships especially for the risk involved with the connections and its consequences (Blau, 1964; Rousseau & Parks, 1993). Trust serves as the contract of the foundation for social relations (Anderson & Narus, 1984, 1990; Dwyer, Schurr, & Oh, 1987; Moorman et al., 1992). Due to having limited sources like time, money and information, risk exists between

consumer and brand. Such uncertainties prevent building high quality relationships which is crucial to be perceived as reliable and trustful. Consumers found a relation with a brand only if it's honest, behaves altruistically toward consumers and reliable. Mistrust leads a consumer to shift a consumer-brand relationship to transaction level, short term relation and decrease their commitment to the company (Journal of Relationship Marketing, 2015). However, brands found a multi-functional relation with the help of positive reputation, word of mouth and satisfaction among consumers can evolve brand trust consequently brand loyalty (Hur, Ho Ahn, Kim,2009).

#### **2.4.4 Website and Technology**

Website is the first impression to the consumer with its design and product information (Stewart, 2003; Trifts and Haubel, 2003) It's a first place to encounter sellers with buyers. (McKnight et al., 1998; McKnight et al., 2002b) Large scale of information, reliability, unlikeness of user design and accurate information improves the consumer experience (Aladwani & Palvia 2002; Kaynama & Black 2000). With its help, end users realize the content's uniqueness, updated and trustful. (Park et al. 2007).

Website features hides deep information of visitors gathering through received emails, filled forms and search traces. These engagements with the website helps vendors to understand how design visuals could be appealing and to increase product information to enhance goal aimed interaction by customers (Han & Mills 2006). To enhance and improve online customers' experience, some important components of features design like buttons, visuals, animations are needed to be goal directed, convenient and appealing for online users to take into consideration of online vendors. Thereby, the flow process of online buyers could be enhanced and create engagement by visually appealing and easy to reach goal directed guidance of the company website. (Park et al. 2007).

Brand loyalty can be expressed by a person who advocates positively and continuously of a certain brand within the product range to others (Badrinarayanan & Laverie 2013). In addition to the increasing willingness of trying out new products, positive word of mouth has been spreading while a resistance existed against unfavorable information (Pai et al. 2013).

Nowadays it has been getting easier to reach any kind of information about health and curing techniques. Despite the convenience of information gathering for medicines, it's getting riskier to reach out for the right information to purchase online medicine due to the dark side of blurred information. Hence, to filter right information among a variety of online pharmacy websites, it's important to check if the website met Health on Net Quality Criteria in Turkey. However, some more others could be in the appearance of websites which seem to meet the HON criteria, might be selling counterfeit products that come out after the increase of internet shopping demand (Yegenoglu, S., Sozen, B., Aslan, D., Calgan, Z., Cagirici,2008). Health on the NET (HON) is a leading organization supporting and directing the distribution of accurate and relevant online health and medical information, as well as its proper and effective usage. It has been devoted to clarify health information among websites to enhance buyers' need to reach the right source of advice and practice. HON's code of conduct principles;

1. Authority: Only professionals with medical training and credentials will provide medical or health advice on the website. If not, at least the advice should be given by medical qualified institutions approved by authorities.
2. Complementarity: Survey is being made by visitors should be supported by the design of the website to be easily found not create a conflict between patient and website.
3. Privacy: Identity of visitors including search data belonging to patients are undertaken to exceed legal procedures of information privacy in law enforcement of a country where a patient lives in.
4. Acknowledgement: Information given in websites obtained from the right

information source is directed to HTML links of the source of data. Displayed reference will be modified to the website with the latest update.

5. Accuracy: References placed to clarify the visitor's treatment need, will be clarified by the manner of acknowledgement principle.

6. Ease of Understand: Website design will contain the supplied information with understandable clarifications by giving the reference of the author and his/hers directed links to reach authors' contact information. The Directions and contact information will be placed on the website for the seekers who need more information and support.

7. Clarity: If any support by commercial or non-commercial institutions given for the building of the website, will be identified clearly to the visitors with identities and contributed parts as services, materials, any of those made during its construction.

8. Confidence: Advertisement as a source of contribution will be honestly declared with an explanation of advertising policy adopted from brand owners. Visitors will be informed about promotional materials used during advertisement with a manner of editorial policy to clarify the transformation into the original product by brand owners.

However, all the policies of HON are created to support online medical product buyers, In Turkey none of online pharmacy websites has adopted HON criterias to act more health seeking behavior compared to US companies. (Selen Yegenoglu, Ph.D.,<sup>1</sup> Bilge Sozen, Pharm.,<sup>1</sup> Dilek Aslan, M.D., M.S.,<sup>2</sup> Zeynep Calgan, Pharm.,<sup>1</sup> and Simge Cagirci, Pharm.<sup>1</sup>, 2008)

#### **2.4.4.1 Reputation of website**

Credibility of online sellers could be analyzed within four categorized specifications namely, trustworthiness ability, predictability, benevolence, and integrity (Mayer et al., 1995; McKnight et al., 1998). Those psychometric criteria lead to the constructed and validated understanding of truthfulness of online

vendors to create a positive reputation gained by visitors (Lienert and Raatz, 1994; Nunnally and Bernstein, 1994). Websites which have a positive reputation among buyers are assumed to be less risky and more trustworthy about the products and services given. The level of trust towards the supplier has contributed to the intention of purchase (Mayer et al., 1995; McKnight et al., 2002b; Bart et al., 2005; Schlosser et al., 2006).

Even though some online vendors are considered as trustful sellers by giving the right medical information and service, there are several risks occurring during the online buying process compared with brick and mortar pharmacies. Counterfeit medications are widely common on internet businesses that lead customers to encounter illegal sellers. Counterfeit incidents are more likely to increase among online vendors that leads online buyers to think twice about trustworthiness of online sellers before buying (Fittler, Vida, Bottz, Kaplar, 2018). More of a concern to public health is the spread of counterfeit drugs than the illnesses they are meant to treat. (Managerial and Decision Economics, 2007) Those containing toxic ingredients cause serious health problems and even outright kill the patients. Therefore, counterfeit not only stains company's reputation but also creates safety problems in a global manner. Counterfeit drugs are "more poisonous than drug price" at the systemic level since they represent an invisible, poorly understood obstacle to adequate access to health care. (Miller, Winegarden 2020) Consumers who use fake medications run the risk of serious long-term health repercussions, such as antibiotic resistance, organ failure, infections with drug resistance, overdose, or even death (Managerial and Decision Economics, 2007)

**Table 2.14:** Counterfeit incidents regarding pharmaceuticals worldwide in 2021.



**Source:** Statistica, 2022.

Counterfeit share of the worldwide medicine market is estimated at %10 ([Blackstone EA, Fuhr JJ, Pociask S. 2014) while its only %1 is constituted by developing countries such as India, Africa, Latin America. Most counterfeit incidents were realized in North America then by order of Asia Pasific, Latin America, Near East Countries, Eurasia, Europe and Africa. (Dorsey PJ, Hellstrom WJ. Medscape. 2007)

Illegal sellers mostly prefer uncontrolled ways of sale of drugs on the contrary of regulated supply systems (Levaggi R, Orizio G, Domenighini S, Bressanelli M, Schulz PJ, Zani C,2009). They mostly use the benefits of online sales convenience as marketing strategies which are easy to buy, discounts, no physical effort given like visiting pharmacists, payment convenience (Bate R. 2008). Common nature of these illegal vendors are trading similar products in a control-free environment which has no restrictions on buyers. For instance, under 18 age of people could get drugs through internet without any restrictions and the number of people buying drugs online has dramatically increasing lately according to recent reports.

(Desai K, Chewning B, Mott D. 2015)

However, a wide range of things can be purchased online without any issues, drugs and vitamins are different from most other products while they directly affect a person's health. When substandard products are acquired, there may be deadly impacts because of the nature of the product. Each form of online pharmacy has drawbacks that come with using them (Fung CH, 2004, Gray 2011). The lack of regulatory controls to guarantee the quality of the items distributed and fight against the use of counterfeit drugs is one of the biggest and most visible problems. Additionally, worries have been expressed to all online pharmacies that customers may have incomplete or inaccurate information about medications, may self-diagnose, may make mistakes, and may encounter other connected difficulties (Henney JE. 2001).

More educated buyers are required on the evaluation of internet site quality, the origin and quality of their products, the kind of product information that should be provided, and the dangers of self-diagnosis and self-medication (Bessell TL, Anderson JN, Silagy CA, Sansom LN, Hiller JE. 2003). It is essential to identify traits associated with those who access health products online and its opportunities, if any, are available for health care providers to speak to educate patients about information and products found online in order to develop patient-centered interference that are effective in this area (Brown J, Li C. 2014).

With the rise in popularity of online pharmacies, some practitioners have talked about the kind of information that should be provided to patients concerning making purchases online (Easton G.2007, Fittler A, Lanko´ E, Brachmann B, Botz L. 2013). However, it's unclear whether they even have the option to do so. According to studies that looked at when patients communicated information they acquired online with their doctors, between 25 and 50 percent of patients do so (Diaz JA, Griffith RA, Ng JJ, Reinert SE, Friedmann PD, Moulton AW 2002,

Murray E, Lo B, Pollack L, 2003), and the majority of them felt comfortable doing so. (Van Tongeren L, Lai A.2005).

## **2.4.5 Customer Service**

### **2.4.5.1 E- Service Quality**

Tremendous increase of e-commerce leads to increased level of competition among retailer companies. In this highly competitive environment, companies try to create distinctive advantages that are not discovered by the others. Neither traditional marketing nor digital marketing strategies couldn't be thought to be constituted without considering extraordinary components. Therefore, e-loyalty has become a trend topic for the marketers to realize its driving factors to affect the target consumer which differs from traditional to digital marketplace. Hence, the e-loyalty concept is a considerable benefit to any business disregarding which platform they are operating.

E-service is a last years' new concept of digital marketing with the rise of an approach to e-commerce business. It has been explained as the perfection of service quality given in a virtual environment by online companies determined with the overall assessment by consumers (Santos, 2003). Another explanation was made as e-service quality describes the degree to which a website makes it possible to browse, buy, and have products and services delivered efficiently and effectively (Zeithaml, 2000 & 2002). It refers to the quality of characteristics for the website's features such as delivery on time, information about the product/service, providing an effective shopping experience and trustful payment process. A consumer assesses an online shopping experience as an overall interaction (van Riel et al. 2001). Hence, all the component effects to the service quality conviction are more likely to be affected by internal factors such as pricing policy. For a sustainable relation to be found, price is the most relevant component among the same product/service providers. Price policy of a company affects the

decision making process of a consumer to find a loyal relationship or not (Santos, 2003). In research it is proposed that service quality and price are inversely correlated as long as the transaction contracts are short-term in nature. There is a chance of future interaction between the buyer and the e-service provider, and customers have the choice of other providers to compare service suppliers (Santos, 2003).

Loyalty brings a lifetime value as the customer repeats the purchase action and continues doing it. Due to the rival competition in business it's a hard thing to achieve (Ponirin, Scott & von der Heidt, 2010). Some loyalty programs had been innovated and offered by e-commerce companies to retain current customers and gain new ones. Before gaining participation by consumers for the loyalty programs, firstly companies need to provide successful e-customer service operated through a website. To develop e-service quality, companies need to meet high quality service standards which creates value for end-users. Highly motivated and high-quality service received by consumers lead to brand advocacy correspondingly to brand loyalty (Zott, Amit & Donlevy, 2000). E-service providers have more critical issues about providing high quality service compared to traditional stores as they are accessible from anywhere the internet is available regardless of location (Gounaris & Dimitriadis, 2003). There are no regional barriers for e-service providers to reach customers yet there is some location-based service given websites. Example of worldwide e-retail service providers could be mentioned is Ali Express which operates with multilingual options to ship the orders to all around the world (Santos, 2003; Yang & Jun, 2002). Generally accepted model to measure service quality SERVQUAL enhanced to make it relevant with e-service quality (Lee & Lin, 2005).

Likely in the traditional market, e-loyalty for the online service industry has gained companies an intense benefit in terms of e-commerce services (Zeithaml, Berry & Parasuraman, 1996). Loyal customers tend to create unbreakable links with the company not easily broken off that lead them to behave differently from

other consumers. Therefore, loyal consumers impact a company's profitability in an intensively positive way by willing to pay more to stay linked with the given high quality service and previously satisfied relationship (Reichheld & Schefer, 2000). To spread their satisfaction, loyal customers tend to provide word -of-mouth that brings more customers.

No matter which industry an e-business company operates in, the relationship between customer and e-service enhances a deeper view of understanding e-loyalty parameters to provide high quality service that relates strongly with the increase of company's profitability.

Website design of features determines the customer journey of how it's joyful and operational to accomplish the buying process. It also helps to create awareness of consumers with the recently used technology for e-quality services to get them involved in production development along with tailored service. High functional websites influence customer's feedback over the assessment as a result of received e-service quality which are essential to build positive attention. Accordingly, e-service quality is now defined as the consumer's judgment of the process and result quality of the engagement with the service provider's electronic channels (Gounaris, Dimitriadis and Stathakopoulos, 2010). For a better e-service quality, e-commerce business owners should consider below specifications for the web experience they offer; security, responsiveness, reliability, ease of use, efficiency, system availability, compensation, contact information, assurance, website design, empathy, aesthetics, information availability, process quality, ease of access, recovery, customer service, customizability, flexibility, integration of communication, enjoyment, outcome quality and personalization.

After two decades of its introduction, e-commerce now amounts to a significant portion of all the commercial activities. The increasing importance of e-retailers in e-commerce and the relationship between e-service quality and consumer

loyalty has provided us with a scenario which encourages us to go deeper into this issue and delivers a good point of departure for our academic quest. Thus, we proceed to formulate our research problem by looking more into the issues of consumer loyalty and e-service quality and thus identifying a gap in the existing literature

#### **2.4.6 Satisfaction**

Satisfaction plays a recognized role in brand loyalty research. The effect of customer satisfaction on consumer loyalty in the context of e-commerce has been studied in order to define consumer loyalty as a positive attitude of consumers toward an e-business that results in continuous purchasing behavior (Anderson and Srinivasan, 2003). In the case of e-commerce especially for the retail industry some challenges are awaiting for investors to be faced with for retaining consumers. The way of communication which is transformed into online platforms with the e-retail context has become more problematic for the marketers compared to traditional retail stores. The lack of realizing face to face communication and receiving customer service made e-commerce contexts more complex to create satisfaction. However, some key factors as discussed in previous chapters have been shedding light on how to ensure satisfaction which leads to an increasing customizing loyalty by resulting in repeat purchase from the same provider (Chang et al, 2009).

Measuring brand satisfaction has been conceived as an important aspect of brand loyalty measurement (Aaker, 1991). In this paper, brand satisfaction is operationalized as an overall emotional reaction to a brand purchasing and usage experience. Literature indicates that increased customer satisfaction leads to higher levels of repeat purchase (Yi, 1990). Consumers' satisfying experiences with the marketer are suggested to be positively associated with their propensity to engage in relational market behavior (Sheth & Parvatiyar, 1995). A positive relationship between satisfaction and commitment is also evident in

organizational and other business settings (Bateman & Strasser, 1984; Williams & Hazer, 1986). Whereas doubts exist as to whether satisfaction leads to commitment, or vice versa, Brown and Peterson's (1993) meta-analysis show support for the satisfaction-commitment path but not for the commitment-satisfaction path. Further, most definitions and measures of satisfaction suggest that satisfaction is a transient and transaction-specific feeling state, and is easier and faster to formulate and more volatile than trust and commitment (Gruen, 1995; Howard & Sheth, 1969; Hunt, 1979; Oliver, 1980, 1981).



## CHAPTER THREE

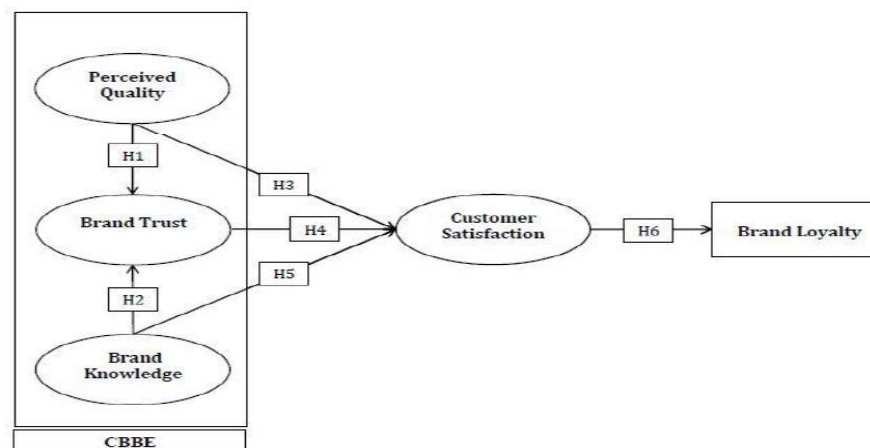
### PROPOSED MODEL AND HYPOTHESES

This chapter explains the proposed model for e-loyalty of online food supplement providers based on the theoretical background as mentioned before in the source of research models from previous studies. Some hypotheses have been clarified including the key factors which are affecting satisfaction. As a conclusion, the chapter ends with e-loyalty of which affecting factors has been concluded to be concerned as a potential factor.

#### 3.1. SOURCE RESEARCH MODELS FROM PREVIOUS STUDIES

For a proposed model of this study some variables have been adopted from Karami's article published in 2022 researched of brand loyalty affecting factors by investigating brand equity, customer satisfaction along with perceived quality and brand knowledge (Karami, 2022). In this study Satisfaction has been adopted from the research model of the article as a directly affecting factor to e-loyalty.

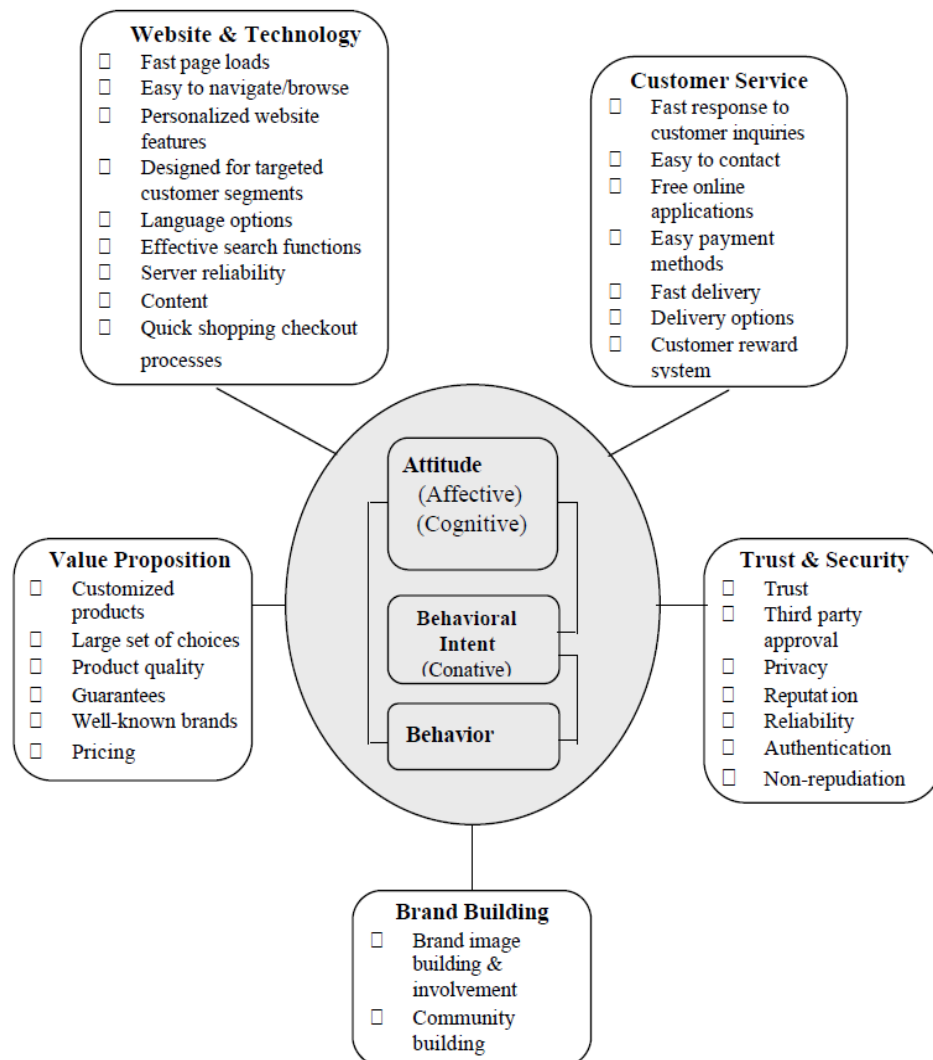
**Figure 1:** Research model of “Brand Equity, Brand Loyalty and Mediating role of Customer Satisfaction”



**Source:** Mohammad Karami 2022

With the accelerated increase of e-commerce adaptation of industries, Gommans, Krishnan and Scheffold have been studied to clarify how brand loyalty transferred into e-loyalty with the proposed model below. For its reference, in this study website features & technological infrastructures, customer service and online trust & security have been integrated from their conceptual framework of e-loyalty as its key drivers (Gommans, Krishnan and Scheffold, 2001).

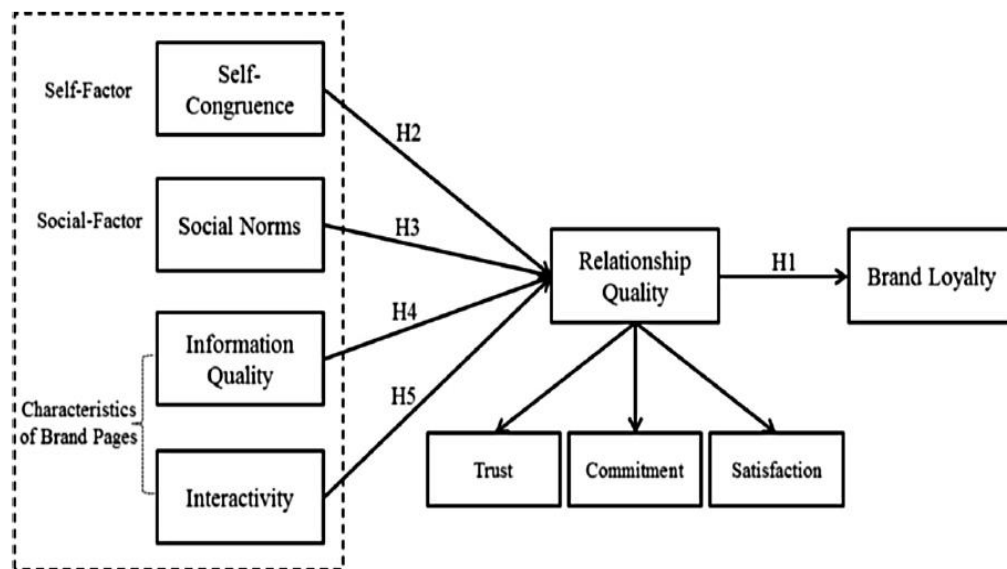
**Figure 2:** Research Model of the Article “From Brand Loyalty to E-Loyalty”



**Source:** Gommans, Krishnan and Scheffold, 2001.

Brand commitment, trust and satisfaction are also supported from the article of Zhang, Benyoucef and Zhao (2015).

**Figure 3:** Research Model of the Article “Building brand loyalty in social commerce”

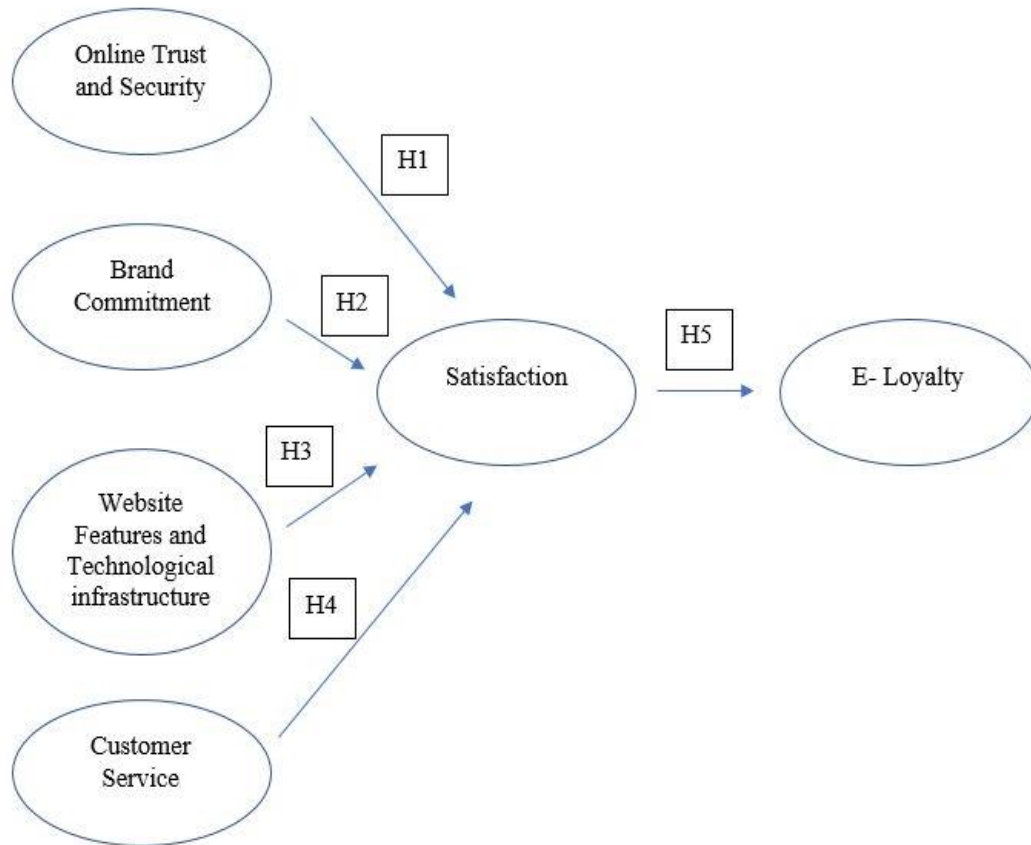


**Source:** Zhang, Benyoucef and Zhao, 2015.

### 3.2. PROPOSED MODEL

For a better understanding of key factors affecting e-loyalty with a combination of different models proposed in previous studies needed to be understood well. The proposed models consisted of the combination of different models investigating the e-loyalty concept with the aim of understanding its effects and drivers. As a consequence, the proposed model is declared in the below table.

**Figure 4:** Proposed Model of the Study



### 3.3 ONLINE TRUST AND SECURITY

As a key factor, online trust and security could be considered for the flow of e-loyalty in accordance with the study of Gommans, Krishnan and Scheffold, 2001. Immediately upon the provision of online trust and security, users who have an interest with a brand start to interact, discuss and exchange their experience and information (Sloan, Bodey, Jones, 2015). Trust and security is a crucial aspect of quality relationship foundation between brand and a consumer (Blau,1964). Trust serves as a contract of the foundation of e-loyalty. Users keep to found a relation only if they see an online brand honest, reliable and behaves altruistically toward consumers (Journal of Relationship Marketing,2015). Respectively below hypotheses could be set up for online trust and security:

H1: Online trust and security perception of a person has a positive effect on satisfaction of the preferred site for the purchase of food supplements.

### **3.4. BRAND COMMITMENT**

Online Trust and security have not been enough to mention as key factors affecting satisfaction to build a-loyalty toward an online food supplement provider. Another important aspect of a determinant for satisfaction is brand commitment that is placed in numerous studies as an affecting factor with a definition of reliable source of information given by the brand. Information sought by consumers is mostly affecting brand reputation and its evolution process. As its result, consumer may change an attitude toward brand positively or negatively by an influence of cognitive practices and beliefs gathered from online and offline environment that turns a customer brand advocate (Jain, Maheswaran, 2000) Therefore, brand commitment has strong influential effect on satisfaction and hence suggest the following hypotheses:

H2: Brand Commitment has a positive effect on satisfaction of the preferred site for the purchase of food supplements.

### **3.5 WEBSITE FEATURES AND TECHNOLOGICAL INFRASTRUCTURE**

Website is the first place for a consumer and company encounter with and is the first impression build by a consumer with its design of features and technological infrastructure (Stewart, 2003; McKnight, 1988) Unlikeness with its design and reliable information that improves consumer experience have been accomplished with some important feature components such as goal directed buttons, visuals and animations that are convenient and appealing for surfers (Park et al, 2007). According to HON (Health on net quality criteria in Turkey) it's important to give right information with improved technological infrastructure and featured

websites to consumer about health and curing techniques to create satisfaction (Yegenoglu, Sozen, Aslan, Calgan, Cagirici, 2008), hence advice the following hypothesis:

H3: Website features and technological infrastructure has positive effect on satisfaction of the preferred site for the purchase of food supplements.

### **3.6 CUSTOMER SERVICE**

E-service has emerged after the revolution of e-commerce for the service industry due to the increased level of competition among e-retailer companies. To create a distinctive advantage like a traditional model of marketing, customer service has been devoted to e-service quality constituted as a distinguished digital strategy toward competitors. While a consumer assesses the overall experience of online shopping, all the components affect the service quality remarkably consumer satisfaction. (van Riel et al. 2001). E-retailer companies including food supplement providers are seeking ways to build sustainable relationships with the consumer to create e-loyalty through satisfaction (Santos,2003). Before gaining satisfaction from a consumer, companies need to provide well working online customer service that creates added value end users keeping them highly motivated and become brand advocates. Therefore, following hypotheses has been advised:

H4: Customer service has a positive effect on satisfaction of the preferred site for the purchase of food supplements.

### **3.7 SATISFACTION**

Measuring brand satisfaction initiates brand loyalty measurements (Aaker, 1991). Customer satisfaction is indicated in the study of Yi as a higher level of repeat purchase interaction (Yi, 1990). Consumer satisfying experiences with e-provider

are suggested to be positively associated with their propensity to engage with relational market behavior (Sheth, Parvatiyar, 1995). Moreover, most of the definitions and measures of satisfaction are mentioned as easier and faster to formulate than brand trust and commitment. Hence, the following hypotheses has been advised as:

H5: Satisfaction has a positive effect on e-Loyalty of the preferred site for the purchase of food supplements.



## **CHAPTER FOUR**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **4.1. RESEARCH OBJECTIVE AND DESIGN**

Measurement of key factors affecting satisfaction which creates a positive attitude for e-loyalty of online food supplement providers could be considered as the main objective of this study. With the increased the level of satisfaction that places a recognizable role in brand loyalty is conceived as an important determinant for consumers.

Research has been designed considering different key factors and their different variables applied by a cross sectional designed online questionnaire and fulfilled voluntarily by online food supplement buyers. To measure variables, a five-point Likert type of scale has been used excluding demographic questions. Survey questions and variables used in this study have been adopted from E-S-QUAL scale considering as having the most impact on customers' perceived value with the dimension of overall quality and loyalty intention.

#### **4.2. QUESTIONNAIRE DEVELOPMENT AND DESIGN**

Survey has been fulfilled by 158 numbers of voluntary participants previously having experience of online purchase of food supplement products. Likert types of scale answers were constituted as follows; strongly agree, agree, neither agree nor disagree, disagree and strongly disagree which are asked to participants to learn their level of agree or disagree statement excluding demographic questions from this type of answering. E-S-QUAL scale used studies have been examined to create survey questions with a relevant designed structure. Thirty-three questions of survey have been asked to participants with Likert scale and open-ended answer options that did not allow participants to skip for consistency. First part asked with seven questions consisted of demographic information about

income level, gender, marital status, age, education level and questions about which online food supplement website they prefer to shop and its frequency. Second part of the questionnaire consisted of twenty-six questions and was designed with E-S-QUAL scale with relevant questions. Survey scale in previous studies has been conducted in Turkish and English languages, therefore in this study Appendix A contains the Turkish version of the questionnaire while Appendix B contains the English version. In the below table, lists of statements for each key factor have been declared to investigate.

**TABLE 4.1:** Survey questionnaire for each key factors

<b>Variable</b>	<b>Statement</b>	<b>Source</b>
<b>Online Trust and Security</b>	OTS 1: I felt secure in providing sensitive information (e.g. credit card number) for online transactions.	Zeithaml, Malhotra, 2005
	OTS 2: The company will not misuse my personal information and does not share with 3rd parties and other websites.	
	OTS 3: I feel safe in my online transactions.	
<b>Brand Commitment</b>	BCO 1: It makes accurate promises about delivery of products.	Zeithaml, Malhotra, 2005
	BCO 2: This site makes food supplement items available for delivery within a suitable time frame.	
	BCO 3: It quickly delivers what I order	
<b>Website Features and Technological Infrastructure</b>	WFT 1: This site is always easy to get from anywhere and available for business.	Zeithaml, Malhotra, 2005
	WFT 2: This site is well organized.	
	WFT 3: This site launches and runs right away	
	WFT 4: It enables me to complete a transaction quickly.	
	WFT 5: It makes it easy to get anywhere on the site.	
	WFT 6: This site is simple to use	
	WFT 7: This site makes it easy to find which food supplement products I need	

<b>Customer Service</b>	CSE 1: It contacts me if the food supplement is out of stock or non-delivery.	Zeithaml, Malhotra, 2005
	CSE 2: This site has customer service representatives \available online.	
	CSE 3: It offers the ability to speak to a live person if there is a problem.	
	CSE 4: It takes care of problems promptly about food supplement purchase.	
	CSE 5: This site compensates me for problems it creates.	
	CSE 6: It compensates me when what I ordered doesn't arrive on time	
	CSE 7: This site handles product returns well.	
<b>Satisfaction</b>	SAT 1: This site has the food supplements I need	Zeithaml, Malhotra, 2005
	SAT 2: I say positive things about this site to other people	
	SAT 3: I recommend this site to someone who seeks my advice for food supplements	
	SAT 4: I encourage friends and others to do business with this site for the purchase of food supplements.	
	SAT 5: I consider this site to be my first choice for future food supplement purchase transactions	
	SAT 6: I will do more business with this site in the coming months for the purchase of food supplements.	

### 4.3 DATA COLLECTION

This survey is based on the results of the questionnaire replies created on Google Forms and shared through the link with email and social media. It has been asked to get participant involvement with an informative declaration at the beginning of survey with the following statements;

“Dear Participant,

This survey study is carried out within the scope of a thesis prepared in Istanbul Bilgi University for the Marketing Master. We request you to contribute to a scientific study by answering this questionnaire. The survey will take an estimated five minutes.

Your answers to the questionnaire are very valuable academically and there is no right or wrong answer. Therefore, we ask you to complete the questions completely. The information you share will only be used within the scope of academic study. It will not be shared with any other institution or organization in any way. You can contact me at the e-mail address for all your questions about the survey and the points you want to be clarified.

Thank you for your participation and contribution.”

With the help of the declaration participants have been informed that the information they give will not be shared with any other person or organization. Addition to that, an email has been shared with them for any questions or concerns they might have about the questions. Data has been collected in 5 weeks and the approximate time for survey fulfillment was 5 minutes while instructions were given at the beginning part and repeated multiple times along with the questionnaire.

#### **4.4 SAMPLING**

To collect accurate data for the study among participants, one important question was asked at the first part as which website do they prefer to buy food supplements and its frequency. With its help, the survey has been conducted by target consumers with a convenience sampling method prepared on Google Forms with access to the internet.

About the sampling size, some literature has been investigated for the right sample sizing with several recommendations. While some suggest larger sample size generates better analyzes to achieve a useful prediction (McQuitty, 2004, Maxwell, 2000), Jackson advises a twenty to one ratio of sample size for a better estimation. With the consideration of recommendations, a sample size at least a hundred is considered as a useful prediction.

158 participants fulfilled the survey while 155 of them completed the questionnaire, 3 of them did not answer all the questions. There is no missing data among the 155 valid replies, thus they were all maintained for data analysis.

#### **4.5 DATA ANALYSIS METHOD**

The data is analyzed with the SPSS 26.0 computer program. Responds collected from the survey firstly exported to Excel and transferred to SPSS 26.0 to be analyzed. In this study some statistical analysis methods have been used which are factor analyses, reliability analyses, correlation and regression analyses. The reason to apply factor and reliability analysis is to understand if the data is reliable. Correlation analysis has been adopted to understand correlation between dependent and independent variables. Descriptive analysis has been applied to understand indeed the demographic variables of online food supplement buyers. Regression analysis has been adopted to determine the moderating effect of independent factors with respect to dependent variables.

## CHAPTER FIVE

### DATA ANALYSES AND RESULTS

In this chapter, data analysis has been investigated by beginning with demographic results including with factor and regression analyses of items.

#### 5.1 DEMOGRAPHIC RESULTS

In the below table, the demographic profile of participants could be investigated.

**Table 5.1:** Demographic Profile of Participants

Characteristics		Frequency (n)	Sample (%)	
Age ( in years)	18-29	46	29.1%	
	30-39	57	36.1%	
	40-49	37	23.4%	
	50 and over	18	11.4%	
Gender	Women	93	58.9%	
	Man	65	41.1%	
Marital Status	Married	70	44.3%	
	Single	88	55.7%	
Education Level	Primary School	6	3.8%	
	Secondary School	5	3.2%	
	High School	25	15.8%	
	University	102	64.6%	
	Master's Degree	20	12.7%	
Personal Income	Monthly	0 - 6000 TRY	33	21.2%
		6000 - 12. 000 TRY	45	28.8%
		12.000 - 24.000 TRY	52	33.3%
		More than 24.000 TRY	26	16.7%

Out of 158 participant, 44.3% of them are married while the rest 55.7% are single. %58.9 of respondents were women, the rest %41.1 were man. Education level varies from primary school to masters degree where 64.6% of participant graduated from university, 3.8% had primary school education, 3.2% graduated from secondary school, 15.8% graduated from high school. Age of participants differs from 18 years to more than 50 years where with the majority was consisted of between 30 and 39 years old participants with 36.1%. The rest share of participant ages are as follows; 29.1% between 18 and 29, 23.4% between 40 and 49, 11.4% are fifty years old and above. In addition, personal monthly income level has been asked to respondents. While 33.3% of them earning monthly between 12.000 to 24.000 TRY, 28.8% between 6.000 to 12.000 TRY, %21.2 of them having up to 6000 TRY while remaining participants earn more than 24.00 TRY.

Data related to food supplement provider website preference and frequency of buying have been asked and the answers can be seen in below table.

**Table 5.2:** Online Food Supplement Providers and Buying Frequency of Respondents

Characteristics	Frequency (n)	Sample (%)	
Which website do you prefer to buy food supplements?	Trendyol	84	53.5%
	Hepsiburada	20	12.1%
	N11	1	0.6%
	Akakçe	1	0.6%
	Cimri	52	33.1%
	Others	0	0.0%
	What is your buying frequency to buy food supplements from your previously preferred website?	Every day	8
Once in a week		26	16.5%
Once in month		26	16.5%
Three times in a month		26	16.5%
Every six months		19	12.0%
Once in a year		53	33.5%

While the majority of participant prefers to buy food supplements from Trendyol with 53.5% share, secondary preferred website could be realized Cimri with 33.1% preference share. Since the questionnaire held in Turkey, Turkish e-commerce food supplement websites have been used and allowed to be selected. Data showing the frequency of buyers from previously chosen websites has the same amount of share with 16.5% from once in week, once in a month and three times in a month buyers. While the majority of buyers prefer to buy once in a year with 33.5%, buyers preferring to purchase every six months has 12% where the rest of the share 5.1% belongs to buyers who get the products every day.

## **5.2 FACTOR ANALYSES**

In this study, factor analysis is applied to determine the validity of the scales used in the study. In other words, it is used to find out interrelated factors among variable sets. Throughout most studies, factor analyses are carried out in order to determine if the same constructs as those formed in earlier studies can be generated using a new data set or in order to investigate the relationship that exists between content categories and equations constructs (Hair et al., 2010). To figure out if the data is adoptable to apply factor analysis, sampling adequacy is measured (Durmuş et al., 2011).

For the following, Keiser- Meyer-Olkin (KMO) and Bartlett's tests were performed in order to understand whether the scale was suitable for factor analysis. While the KMO coefficient is calculated to test the sample size, the normal distribution condition is examined with the Bartlett test. KMO test result should be 0.50 and above while the upper limit for Bartlett's test is generally agreed to be 0.05. and shows statistically significant (Jeong, 2004: 70). In this study, factor load values were examined in the assignment of scale items to factors and reliability have been analyzed in the following sections.

For the description of group of components could be clarified with undimensionality concept which is important when the model has more than two components. Reliability analyses follow undimensionality and it has been recommended by Hattie (1985) at least 0.50 factor loadings for undimensionality.

Cronbach's alpha is the most used factor reliability measure. Factor reliability differs in between “0” and “1” depending on Alfa ( $\alpha$ ). Nunnally and Bernstein (1994) propose for Cronbach's alpha to be at least 0.70, even though there is no standard. According to Nunnally (1967) the reliability of the scale is measured as follows;

$0.00 \leq \alpha < 0.40$  factor is not reliable

$0.40 \leq \alpha < 0.60$  factor has lower reliability

$0.60 \leq \alpha < 0.80$  factor is reliable

$0.80 \leq \alpha < 1.00$  factor is strongly reliable (Nunnally, 1967)

### 5.2.1 Factor and Reliability Analyses for Online Trust and Security

KMO and Bartlett's tests results were satisfactory for the factor with 0.656. means all the items in the factor analysis could be included. According to Bartlett's test result, approx. Chi-Square  $\chi^2$  is 208.970 while df is 3 and p equals to 0.000 therefore the results have been found statistically meaningful.

**Table 5.3:** KMO and Bartlett's Test Results for Online Trust and Security

KMO		0.656
	Approx. Chi-Square $\chi^2$	208.970
Bartlett's Test	df	3
	p	0.000

**Table 5.4:** Factor Analyses for Online Trust and Security

	Factor Loading	Variance (%)	Reliability (Cronbach's Alpha)
8. I felt secure in providing sensitive information (e.g. credit card number) for online transactions.	0.926		
9. The company will not misuse my personal information and does not share with 3rd parties and other websites.	0.843	75.662	0.832
10. I feel safe in my online transactions.	0.838		

The factors of online trust and security consisted of three question that has factor loadings from 0.828 to 0.926. Total variance of the factor has been found as %75.662 while Cronbach's Alpha is 0.832 means that the factor is strongly reliable as it is in between  $0.80 \leq \alpha < 1.00$ .

### 5.2.2 Factor and Reliability Analyses for Brand Commitment

KMO and Bartlett's tests results were satisfactory for the factor with 0.700 therefore all the items in the factor analysis could be included ( $KMO > 0.500$ ). Bartlett's test result, approx. Chi-Square  $X^2$  is 114.187 while df is 3 and p equals to 0.000 therefore the results have been found statistically meaningful ( $p < 0,05$ ).

**Table 5.5:** KMO and Bartlett's Test Results for Brand Commitment

KMO		0.700
	Approx. Chi-Square $X^2$	144.187
Bartlett's Test	df	3
	p	0.000

**Table 5.6:** Factor Analyses for Brand Commitment

	Factor Loading	Variance (%)	Reliability (Cronbach's Alpha)
14. It quickly delivers what I order.	0.867		
12. It makes accurate promises about delivery of products.	0.846	71.012	0.794
13. This site makes food supplement items available for delivery within a suitable time frame.	0.814		

The factors of brand commitment consisted of three question that has factor loadings from 0.814 to 0.867. Total variance of the factor has been found as %71.012 while Cronbach's Alpha is 0.794 means that the factor is reliable as it is in between  $0.60 \leq \alpha < 0.80$ .

### 5.2.3 Factor and Reliability Analyses for Website Feature and Technological Infrastructure

**Table 5.7:** KMO and Bartlett's Test Results for Website Features and Technological Infrastructure

KMO		0.901
	Approx. Chi-Square $X^2$	964.658
Bartlett's Test	df	21
	p	0.000

KMO and Bartlett's tests results were satisfactory for the factor with 0.901 therefore all the items in the factor analysis could be included (KMO>0.500). Bartlett's test result, approx. Chi-Square  $x^2$  is 964.658 while df is 21 and p equals to 0.000 therefore the results have been found statistically meaningful (p<0,05).

**Table 5.8:** Factor Analyses for Website Feature and Technological Infrastructure

	Factor Loading	Variance (%)	Reliability (Cronbach's Alpha)
6. This site is simple to use	0.918		
5. It makes it easy to get anywhere on the site.	0.890		
2. This site is well organized	0.887		
3. This site launches and runs right away	0.874		
4. It enables me to complete a transaction quickly.	0.870	72.705	0.932
7. This site makes it easy to find which food supplement products I need	0.785		
1. This site is always easy to get from anywhere and available for business.	0.728		

The factors of website feature and technological infrastructure consisted of seven question that has factor loadings from 0. 728 to 0. 918. Total variance of the factor has been found as %72.705 while Cronbach’s Alpha is 0.932 means that the factor is strongly reliable as it is in between  $0.80 \leq \alpha < 1.00$ .

#### 5.2.4 Factor and Reliability Analyses for Customer Service

**Table 5.9:** KMO and Bartlett’s Test Results for Customer Service

KMO		0.863
	Approx. Chi-Square $X^2$	627.519
Bartlett’s Test	df	21
	p	0.000

KMO and Bartlett's tests results were satisfactory for the factor with 0.863 therefore all the items in the factor analysis could be included (KMO>0.500). Bartlett's test result, approx. Chi-Square x2 is 627.519 while df is 21 and p equals to 0.000 therefore the results have been found statistically meaningful (p<0,05).

**Table 5.10:** Factor Analyses for Customer Service

	Factor Loading	Variance (%)	Reliability (Cronbach's Alpha)
18. It takes care of problems promptly about food supplement purchase.	0,885		
19. This site compensates me for problems it creates.	0,856		
17. It offers the ability to speak to a live person if there is a problem.	0,841		
20. It compensates me when what I ordered doesn't arrive on time	0,764	61,401	0,892
16. This site has customer service representatives \available online.	0,751		
11. It contacts me if the food supplement is out of stock or non-delivery.	0,690		
21. This site handles product returns well.	0,672		

The factors of customer service consisted of seven question that has factor loadings from 0. 672 to 0. 885. Total variance of the factor has been found as %61.401 while Cronbach’s Alpha is 0.892 means that the factor is strongly reliable as it is in between  $0.80 \leq \alpha < 1.00$ .

### 5.2.5 Factor and Reliability Analyses for Satisfaction

**Table 5.11:** KMO and Bartlett’s Test Results for Satisfaction

KMO		0.858
	Approx. Chi-Square X <sup>2</sup>	466.535
Bartlett’s Test	df	15
	p	0.000

KMO and Bartlett’s tests results were satisfactory for the factor with 0. 858 therefore all the items in the factor analysis could be included (KMO>0.500). Bartlett’s test result, approx. Chi-Square x2 is 466.535 while df is 15 and p equals to 0.000 therefore the results have been found statistically meaningful (p<0,05).

**Table 5.12:** Factor Analyses for Satisfaction

	Factor Loading	Variance (%)	Reliability (Cronbach's Alpha)
23. I recommend this site to someone who seeks my advice for food supplements	0.848		
25. I consider this site to be my first choice for future food supplement purchase transactions	0.843	62.545	0.875
24. I encourage friends and others to do business with this site for the purchase of food supplements	0.806		
22. I say positive things about this site to other people	0.760		

26. I will do more business with this site in the coming months for the purchase of food supplements	0.755
15. This site has the food supplements I need	0.725

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The factors of satisfaction consisted of six question that has factor loadings from 0.725 to 0.848. Total variance of the factor has been found as %62.545 while Cronbach's Alpha is 0.875 means that the factor is strongly reliable as it is in between  $0.80 \leq \alpha < 1.00$ .

### **5.3 CORRELATION ANALYSES**

Correlation analyze is defined as the measurement of the strength of relationship between variables for which is used to calculate the effect of change in one variable when the other changes. Therefore, correlation test is applied on independent constructs to figure out that if there is a relationship between in variables or not. When the variables have discriminant validity, correlation should not exceed 0.85 (Kline,2005). On the contrary, another study claims that correlations higher than 0.85 could be accepted when it is supported by different analysis (Hair,2010). Table below shows the correlation analysis of E-loyalty contracts.

**Table 5.13: Pearson Correlation Analysis of E-Loyalty**

	Online Trust and Security	Brand Commitment	Website Feature and Technological Infrastructure	Customer Service	Satisfaction	E-loyalty
Online Trust and Security	r 1					
Brand Commitment	r <b>.549**</b>	1				
Website Feature and Technological Infrastructure	r <b>.491**</b>	<b>.642**</b>	1			
Customer Service	r <b>.611**</b>	<b>.759**</b>	<b>.652**</b>	1		
Satisfaction	r <b>.572**</b>	<b>.707**</b>	<b>.653**</b>	<b>.744**</b>	1	
E-loyalty	r <b>.732**</b>	<b>.842**</b>	<b>.837**</b>	<b>.909**</b>	<b>.880**</b>	1

**\*\*p<0,01 (correlation is significant at 0.01 level)**

**\*p<0,05 (correlation is significant at 0.05 level)**

Online trust & security has weak positive relationship with website feature & technological infrastructure (r=0.491) while having medium positive correlation with brand commitment (r=0.549), customer service (r=0.611) and satisfaction (r=0.572). However, it has strong positive correlation with e-loyalty (r=0.732). Brand commitment has medium positive relationship with website feature & technological infrastructure (r=0.642) while having strong positive correlation with customer service (r=0.759), satisfaction (r=0.707), e-loyalty (r=0.842). Website feature & technological infrastructure has medium positive correlation with customer service (r=0.652) and satisfaction (r=0.653) while having a strong positive correlation with e-loyalty (r=0.837). Customer service has positive relationship with satisfaction (r=0.744) while having strong positive relationship with e-loyalty (r=0.909). Satisfaction has strong positive relationship with e-loyalty (r=0.880).

## 5.4 REGRESSION ANALYSES

To evaluate the hypotheses of suggested model, regression analysis is applied to determine the relationship between dependent and independent variables. In the following tables and sections, outcomes of the analyses could be examined.

### 5.4.1 Multiple Regression Analyses for Key Factors and E-Loyalty

**Table 5.14:** Multiple Regression Analyses between Key Factor and E-Loyalty

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.732 <sup>a</sup>	0,536	0,533	10,01535
2	.902 <sup>b</sup>	0,813	0,810	6,37961
3	.958 <sup>c</sup>	0,918	0,916	4,23707
4	.988 <sup>d</sup>	0,976	0,975	2,31276

a. Predictors: (Constant), Online Trust and Security

b. Predictors: (Constant), Online Trust and Security, Brand Commitment

c. Predictors: (Constant), Online Trust and Security, Brand Commitment, Website features and Technological Infrastructure

d. Predictors: (Constant), Online Trust and Security, Brand Commitment, Website features and Technological Infrastructure, Customer Service

The factors of determination between the key factors and e-loyalty, in other words the value of  $R^2$ , was examined.  $R^2$  value is used to show the extent to which the dependent variable is explained by the independent variables.  $R^2$  value increases as the number of factors increases. In this model, all of the e-loyalty that consists of the dependent variables, are explained by the independent variables.

### 5.4.2 ANOVA test for the Regression Analyses between Key Factors and E-loyalty

ANOVA results of regression analyses between key factors and E-loyalty can be found below table applied to test if the model is significant or not.

**Table 5.15:** ANOVA Test Results of Regression Analysis Between Key Factors and E-Loyalty

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18058,264	1	18058,264		
	Residual	15647,914	156	100,307	180,030	.000 <sup>b</sup>
	Total	33706,177	157			
2	Regression	27397,758	2	13698,879		
	Residual	6308,419	155	40,699	336,586	.000 <sup>c</sup>
	Total	33706,177	157			
3	Regression	30941,455	3	10313,818		
	Residual	2764,722	154	17,953	574,498	.000 <sup>d</sup>
	Total	33706,177	157			
4	Regression	32887,800	4	8221,950		
	Residual	818,377	153	5,349	1537,137	.000 <sup>e</sup>
	Total	33706,177	157			

a. Dependent Variable: E- Loyalty

b. Predictors: (Constant), Online Trust and Security

c. Predictors: (Constant), Online Trust and Security, Brand Commitment

d. Predictors: (Constant), Online Trust and Security, Brand Commitment, Website features and Technological Infrastructure

e. Predictors: (Constant), Online Trust and Security, Brand Commitment, Website features and Technological Infrastructure, Customer Service

According to Anova test results between key drivers and e-loyalty, overall power of the model is found to be 0.976 (R=0.988, R<sup>2</sup>=0.976, F=1537.137, p=0.000).

### 5.4.3 Coefficients of Regression Analysis Between Key Factors and E – Loyalty

**Table 5.16:** Coefficients of Regression Analysis Between Key Factors and E - Loyalty

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
1	(Constant)	55.484	3.680		15.079	0.000		
	Online Trust and Security	4.257	0.317	0.732	13.418	0.000	1.000	1.000
2	(Constant)	23.145	3.170		7.300	0.000		
	Online Trust and Security	2.244	0.242	0.386	9.275	0.000	0.698	1.433
	Brand Commitment	4.580	0.302	0.630	15.148	0.000	0.698	1.433
3	(Constant)	3.515	2.527		1.391	0.166		
	Online Trust and Security	1.743	0.165	0.300	10.595	0.000	0.665	1.503
	Brand Commitment	2.900	0.234	0.399	12.409	0.000	0.515	1.941
	Website features & Technological Infrastructure	1.514	0.108	0.433	14.050	0.000	0.560	1.786
4	(Constant)	2.919	1.380		2.116	0.036		
	Online Trust and Security	1.186	0.094	0.204	12.554	0.000	0.602	1.662
	Brand Commitment	1.448	0.149	0.199	9.747	0.000	0.380	2.631
	Website features &	1.191	0.061	0.341	19.468	0.000	0.517	1.934

Technological Infrastructure								
Customer Service	1.283	0.067	0.411	19.076	0.000	0.342	2.923	
(Constant)	0.000	0.000		0.000	1.000			
Online Trust and Security	1.000	0.000	0.172	87184073.192	0.000	0.587	1.704	
Brand Commitment	1.000	0.000	0.138	54529600.053	0.000	0.359	2.788	
5 Website features & Technological Infrastructure	1.000	0.000	0.286	132111119.826	0.000	0.486	2.057	
Customer Service	1.000	0.000	0.320	117376510.366	0.000	0.307	3.261	
Satisfaction	1.000	0.000	0.259	103136821.041	0.000	0.362	2.759	

a. Dependent Variable: E-Loyalty

In this table, B refers to variables co-efficiency while Beta value refers to the effect of each independent variable on dependent variable (Kalaycı, 2010). Whereas beta value increase, it is expected to increase the effect of independent variable on dependent variable (Kalaycı, 2010). T value shows each variable's confirmability as if the number refers to under 0.05 (Kalaycı, 2010). VIF value refers to endure the multicollinearity problem. For this regression model, VIF value is between 1.433 and 3.261 while the tolerance is higher than 0.10 could be concluded that the linear relation between variables is significantly higher. In this model, Beta for online trust and security found as 0.172, for brand commitment  $\beta=0.138$ , website features & technological infrastructure  $\beta=0.286$ , customer service  $\beta=0.320$  and for satisfaction  $\beta=0.259$ .

#### 5.4.4 Regression Analysis between Key Factors and Satisfaction

**Table 5.17:** Regression Analysis between Key Factors and Satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.572 <sup>a</sup>	0,327	0,323	3,12067
2	.741 <sup>b</sup>	0,549	0,543	2,56465
3	.772 <sup>c</sup>	0,596	0,588	2,43491
4	.798 <sup>d</sup>	0,638	0,628	2,31276

The factors of determination between the key factors and satisfaction, in other words the value of  $R^2$ , was examined.  $R^2$  value is used to show the extent to which the dependent variable is explained by the independent variables.  $R^2$  value increases as the number of factors increases. In this model, satisfaction is explained by independent variables.

#### 5.4.5 ANOVA Test Results of Regression Analysis Between Key Factors and Satisfaction

**Table 5.18:** ANOVA Test Results of Regression Analysis Between Key Factors and Satisfaction

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	738,961	1	738,961	75,880	.000 <sup>b</sup>
	Residual	1519,216	156	9,739		
	Total	2258,177	157			
2	Regression	1238,676	2	619,338	94,161	.000 <sup>c</sup>
	Residual	1019,502	155	6,577		
	Total	2258,177	157			

	Regression	1345,144	3	448,381		
3	Residual	913,033	154	5,929	75,628	.000 <sup>d</sup>
	Total	2258,177	157			
	Regression	1439,800	4	359,950		
4	Residual	818,377	153	5,349	67,295	.000 <sup>e</sup>
	Total	2258,177	157			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Online Trust and Security

c. Predictors: (Constant), Online Trust and Security, Brand Commitment

d. Predictors: (Constant), Online Trust and Security, Brand Commitment, Website features & Technological Infrastructure

e. Predictors: (Constant), Online Trust and Security, Brand Commitment, Website features & Technological Infrastructure, Customer Service

According to Anova test results between key drivers and satisfaction, overall power of the model is found to be 0.638 (R=0.798, R<sup>2</sup>=0.638, F=67.295, p=0.000).

#### 5.4.6 Coefficients of Regression Analysis Between Key Factors and E – Loyalty

**Table 5.19:** Coefficients of Regression Analysis Between Key Factors and E - Loyalty

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	13.933	1.147		12.153	0.000	
	Online Trust and Security	0.861	0.099	0.572	8.711	0.000	1.000 1.000
2	(Constant)	6.453	1.274		5.063	0.000	
	Online Trust and Security	0.395	0.097	0.263	4.066	0.000	0.698 1.433
	Brand Commitment	1.059	0.122	0.563	8.716	0.000	0.698 1.433

	(Constant)	3.050	1.452		2.101	0.037		
	Online Trust and Security	0.309	0.095	0.205	3.265	0.001	0.665	1.503
3	Brand Commitment	0.768	0.134	0.408	5.720	0.000	0.515	1.941
	Website Features & Technological Infrastructure	0.262	0.062	0.290	4.238	0.000	0.560	1.786
	(Constant)	2.919	1.380		2.116	0.036		
	Online Trust and Security	0.186	0.094	0.123	1.966	0.051	0.602	1.662
	Brand Commitment	0.448	0.149	0.238	3.016	0.003	0.380	2.631
4	Website Features & Technological Infrastructure	0.191	0.061	0.212	3.126	0.002	0.517	1.934
	Customer Service	0.283	0.067	0.350	4.207	0.000	0.342	2.923

a. Dependent Variable: Satisfaction

Whereas beta value increase, it is expected to increase the effect of independent variable on dependent variable which is satisfaction in this model (Kalaycı, 2010). For this regression model, VIF value is between 1.000 and 2.923 while the tolerance is higher than 0.10 could be concluded that the linear relation between variables is significantly higher. Beta for online trust and security found as 0.123, for brand commitment  $\beta=0.238$ , website features & technological infrastructure  $\beta=212$ , customer service  $\beta=0.350$ .

#### 5.4.7 Regression Analysis for Satisfaction and E – Loyalty

**Table 5.20:** Regression Analysis for Satisfaction and E – Loyalty

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.880 <sup>a</sup>	0.774	0.772	6.98877

The factors of determination between satisfaction and e-loyalty, in other words the value of  $R^2$ , was examined.  $R^2$  value is used to show the extent to which the dependent variable is explained by the independent variables.  $R^2$  value increases as the number of factors increases. In this model, e-loyalty is explained by independent variables.

#### 5.4.8 ANOVA Test Results of Regression Analysis Between Satisfaction and E-Loyalty

**Table 5.21:** ANOVA Test Results of Regression Analysis Between Satisfaction and E-Loyalty

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	26086.680	1	26086.680		
1	Residual	7619.498	156	48.843	534.093	.000 <sup>b</sup>
	Total	33706.177	157			

a. Dependent Variable: E-loyalty

b. Predictors: (Constant), Satisfaction

According to Anova test results between e-loyalty and satisfaction, overall power of the model is found to be 0.774 ( $R=0.880$ ,  $R^2=0.774$ ,  $F=534.093$ ,  $p=0.000$ ).

#### 5.4.9 Coefficients of Regression Analysis Between Satisfaction and E - Loyalty

**Table 5.22:** Coefficients of Regression Analysis Between Satisfaction and E - Loyalty

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	23.187	3.527		6.574	0.000		
1							
Satisfaction	3.399	0.147	0.880	23.110	0.000	1.000	1.000

a. Dependent Variable: E-loyalty

According to the regression model to investigate the effect of satisfaction on e-loyalty has been found statistically meaningful ( $F=534.093$ ,  $p<0,05$ ) and results also shows that satisfaction has positive effect on e-loyalty. ( $\beta = 0,880$ )

#### 5.4.10 Test Results of Hypotheses

**Table 5.23:** Test Results of Hypotheses

Hypotheses	Results
H <sub>1</sub> : Online trust and security has a positive impact on e-loyalty	Supported
H <sub>2</sub> : Brand commitment has a positive impact on e-loyalty	Supported

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H <sub>3</sub> : Website features and technological infrastructure has a positive impact on e-loyalty	Supported
H <sub>4</sub> : Customer service infrastructure has a positive impact on e-loyalty	Supported
H <sub>5</sub> : Satisfaction has a positive impact on e-loyalty	Supported
H <sub>6</sub> : Online trust and security, brand commitment, website features and technological infrastructure, customer service and satisfaction have positive impact on e-loyalty	Supported

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## **CHAPTER SIX**

### **DISCUSSION AND CONCLUSION**

In the final part, findings from the survey and the overall theoretical and managerial implications have been mentioned. Chapter ended up with some recommendations for future researchers with some limitations discussed earlier.

#### **6.1 DISCUSSION**

Health information search has become more common with the digitalization of healthcare services and online supply for food supplements nowadays. This study aimed to examine e-loyalty relationship of Turkish customer's online food supplement providers by investigating key factors of e-loyalty drivers. E- Loyalty is found to be considered as a crucial determinant to be achieved by regardless of any industry participants. In this study, some characteristics of business owners that need to construct an e-loyalty attitude fostered by consumers are explained in proposed model constituted by Online trust and security, satisfaction, website features and technological infrastructure, customer service along with brand commitment. According to the result of quantitative research conducted by 158 participants, all the factors have been structured as proposed model has positive relation with e-loyalty attitude. As a result, it has been found out that the consumers give the priority to the organization of website content trust and security of transaction. If online traders provide security systems for transactions and accurate information for required product or service, consumer become more likely to be satisfied so likely show loyalty toward a brand. Miyazaki and Fernandez investigated in their study that the level of internet users' experience measured with the perceived risks of information data shared. Therefore, to maintain privacy rights and security of data shared are primarily rights given to the customer (Rohm, Milne, 1998).

Online trust & security has weak positive correlation with website feature & technological infrastructure ( $r=0.491$ ) while having medium positive correlation with brand commitment ( $r=0.549$ ), customer service ( $r=0.611$ ) and satisfaction ( $r=0.572$ ). However, it has strong positive correlation with e-loyalty ( $r=0.732$ ). Brand commitment has medium positive correlation with website feature & technological infrastructure ( $r=0.642$ ) while having strong positive correlation with customer service ( $r=0.759$ ), satisfaction ( $r=0.707$ ), e-loyalty ( $r=0.842$ ). Website feature & technological infrastructure has medium positive correlation with customer service ( $r=0.652$ ) and satisfaction ( $r=0.653$ ) while having a strong positive correlation with e-loyalty ( $r=0.837$ ). Customer service has positive correlation with satisfaction ( $r=0.744$ ) while having strong positive relationship with e-loyalty ( $r=0.909$ ). Satisfaction has strong positive relation with e-loyalty ( $r=0.880$ ).

While dependent is E- Loyalty, beta for online trust and security found as 0.172, for brand commitment  $\beta=0.138$ , website features & technological infrastructure  $\beta=0.286$ , customer service  $\beta=0.320$  and for satisfaction  $\beta=0.259$ . While dependent is Satisfaction, beta for online trust and security found as 0.123, for brand commitment  $\beta=0.238$ , website features & technological infrastructure  $\beta=0.212$ , customer service  $\beta=0.350$ . Lastly, according to the regression model to investigate the effect of satisfaction on e-loyalty has been found statistically meaningful ( $F=534.093$ ,  $p<0,05$ ) and results also shows that satisfaction has positive effect on e-loyalty with  $\beta=0,880$ .

## **6.2 THEORETICAL AND MANAGERIAL IMPLICATIONS**

This study has some important touch points enlighten for online business owners and the new investors who are considering to invest in an online food supplement business. According to the survey results we can summarize our findings under the light of conceptual model. Web features and technological infrastructure is the first encounter place for a consumer where receives the first impression about the

company in virtual environment. Target oriented, ease of use features, providing required information with references along with security and privacy arise trustworthy relation to be found between consumer and brand lead to create e-loyalty through satisfaction. For especially about health issues, information gathering and received service reliability helps the consumer to evaluate of alternatives and influences them to make a choice. After making the decision, one of the most positive strong relationships having factor customer service arisen on the purchase and post-purchase process. Online seller strongly needs to give excellent customer service to maintain satisfaction at higher level to create re-buy action. Consumers decide about what could they expect from online provider largely based on their perception about customer service which is an important structure for e-loyalty construct. Therefore, this study's model could be used by the e-suppliers to create consumer loyalty and to sustain it. About e-loyalty concept topic there are numerous studies. However, there is a lack of food supplement industry focused study on e-commerce provided products. By the reason of realizing a gap about the concept, this study is prepared to fulfill the need. Internet has changed last decades of human lives in aspects of shopping, communication, access of information and seems it is going to be continuous.

### **6.3 LIMITATIONS**

However, this study is prepared to fulfill the gap of industrial oriented food supplements online sale research, there are some points need to be enlightened by new researches to evaluate the case and future implications with wider perspective. To give an example, social media effect of food supplement online sale and its reliability could be investigated as an effective factor. While this paper investigates managerial implication, survey results has some limitations should be considered. Data collected for the survey is consisted as cross sectional for longitudinal research could be included more information and the factors consisted to explain the model could be revised over the time. Another aspect to explain this study's limitations is about the participant of survey was Turkish

online shoppers. Therefore, results could vary among different participants from other nations with different buying method users. Addition for that, Meta Verse as nearest future application practices for food supplement sale and advertisement could be added on the researches to build future expectation. For a final advice to the future researchers, to examine the influence of varied demographic features and the preferences possessed by individuals from other nations, since this study was only carried out in Turkey among 158 participants and was completed by people who were citizens of Turkey.



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## **APPENDICES**

### **APPENDIX A: QUESTIONNAIRE IN ENGLISH**

#### **ONLINE FOOD SUPPLEMENT E-LOYALTY**

Dear Participant,

This survey study is carried out within the scope of a thesis prepared in Istanbul Bilgi University Marketing Post Graduate Department. We request you to contribute to a scientific study by answering this questionnaire. The survey will take an estimated five minutes.

Your answers to the questionnaire are very valuable academically and there is no right or wrong answer. Therefore, we ask you to complete the questions completely. The information you share will only be used within the scope of academic study. It will not be shared with any other institution or organization in any way. You can contact me at the e-mail address for all your questions about the survey and the points you want to be clarified.

Thank you for your participation and contribution.

Yesim Balkaya

<p><b>Question</b></p> <p>Please indicate your level of agreement with the following statements.</p> <p>-Strongly Disagree, Disagree, Neither Agree Nor Disagree, Agree, Strongly Agree</p>
1: This site is always easy to get from anywhere and available for business.
2: This site is well organized
3: I feel safe in my online transactions
4: It enables me to complete a transaction quickly
2: This site makes food supplement items available for delivery within a suitable time frame
3: This site has the food supplement I need
4: This site is always easy to get from anywhere and available for business.
5: It makes it easy to get anywhere on the site.
6: This site is simple to use
7: This site makes it easy to find which food supplement products I need
8: I felt secure in providing sensitive information (e.g. credit card number) for online transactions.
9: The company will not misuse my personal information and does not share with 3rd parties and other websites.

10: I feel safe in my online transactions.
11: It contacts me if the food supplement is out of stock or non-delivery
12: It makes accurate promises about delivery of products
13: This site makes food supplement items available for delivery within a suitable time frame
14: It quickly delivers what I order.
15: This site has the food supplements I need
16: This site has customer service representatives \available online.
17: It offers the ability to speak to a live person if there is a problem.
18: It takes care of problems promptly about food supplement purchase.
19: This site compensates me for problems it creates.
20: It compensates me when what I ordered doesn't arrive on time
21: This site handles product returns well.
22: I say positive things about this site to other people

23: I recommend this site to someone who seeks my advice for food supplements

24: I encourage friends and others to do business with this site for the purchase of food supplements

25: I consider this site to be my first choice for future food supplement purchase

26: I will do more business with this site in the coming months for the purchase

## **APPENDIX B: QUESTIONNAIRE IN TURKISH**

### **ONLINE GIDA TAKVIYESİ SATIN ALMA E-SADAKATI**

Değerli Katılımcı,

Bu anket çalışması İstanbul Bilgi Üniversitesi Pazarlama Yüksek Lisans Bölümünde hazırlanan bir tez kapsamında gerçekleştirilmektedir. Bu ankete cevap vererek bilimsel bir çalışmaya katkıda bulunmanızı rica ediyoruz. Anket tahmini olarak beş dakika sürecektir.

Ankete vereceğiniz cevaplar akademik açıdan çok değerli olup herhangi doğru veya yanlış bir cevap bulunmamaktadır. Bu nedenle soruları eksiksiz tamamlamanızı rica ediyoruz. Paylaşacağınız bilgiler sadece akademik çalışma kapsamında kullanılacaktır. Başka bir kurum veya kuruluş ile hiçbir şekilde paylaşılmayacaktır. Anket ile ilgili tüm sorularınız ve netleşmesini istediğiniz noktalar için e-mail adresinden benimle iletişime geçebilirsiniz.

Katılımınız ve katkılarınız için teşekkür ederiz.

Yesim Balkaya

**Sorular**

Lütfen katılım seviyenizi aşağıdaki seçeneklerle belirtiniz.

Tamamen katılıyorum, Katılıyorum, Fikrim Yok, Katılmıyorum,  
Kesinlikle Katılmıyorum

1: İnternet sitesi her zaman işlem yapmaya uygun ve ulaşılabilir  
durumdadır

2: Sitenin düzenlemesi başarılıdır

3: Site hızlı yüklenir ve hemen çalışır

4: Site, hızlıca satın alma işlemi gerçekleştirmemizi sağlar

5: Sitede gezinmek çok kolaydır

6: Sitenin kullanımı kolaydır

7: Site ihtiyacım olan gıda takviyelerini kolayca bulmamı sağlar

8: Kredi kartım ve ödemelerle alakalı tüm bilgiler, korunmaktadır

9: Site, diğer siteler ve 3. Kişilerle, kişisel bilgilerimi paylaşmaz

10: İnternet sitesinde işlem yaparken kendimi güvende hissedirim

11: Aldığım gıda takviyesi, bana ulaşmazsa ya da stoklarında yoksa ne  
yapacağım konusunda benimle iletişime geçer

12: Ürün teslimatıyla alakalı taahhütleri doğrudur

13: Gıda takviyelerini en uygun zaman aralığında, taahhüt edildiği gibi  
almaktayım

14: Siparişlerim hızlıca teslim edilir

15: Site, talep ettiğim gıda takviyelerine sahiptir

16: Bu site, çevrimiçi uygun müşteri hizmet temsilcilerine sahiptir
17: Bir problem yaşadığımda, canlı (telefonla vb.) konuşabileceğim personeller sunmaktadır
18: Gıda Takviyesi alışverişimde yaşadığım problemlerle hemen ilgilenir
19: Ortaya çıkan problemleri telafi eder
20: Zamanında ulaşmayan siparişlerimi telafi eder
21: Geri göndermek istediğim ürünleri kabul eder
22: Bu web sitesi hakkında diğer insanlara olumlu şeyler söylerim
23: Fikrimi soran birine bu web sitesini gıda takviyesi için tavsiye ederim
24: Arkadaşlarımı ve diğer insanları bu siteden gıda takviyesi satın almaya teşvik ederim
25: Bu web sitesini gelecekteki ilk gıda takviyesi satın alma tercihim olarak düşünüyorum
26: Gelecekte bu web sitesinden daha fazla gıda takviyesi satın alma işlemi yapacağım

## ETHICS BOARD APPROVAL

Ethics Board Approval is available in the printed version of this dissertation.

