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**INFLUENCING FACTORS ON PURCHASING INTENTIONS OF OTC
(Over-The-Counter) PRODUCTS**

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(Over-The-Counter) PRODUCTS**

**ECZANELERDE TEZGAH ÜSTÜ SATILAN ÜRÜNLERİ SATIN ALMA
DAVRANIŞINI ETKİYEN FAKTÖRLER**

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To my endless love Refik, my lovely son and daughter - Ilgaz Ege and Defne

To memory of my dearest one - my father

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ABSTRACT

Over-the-counter (OTC) products are the medicine or medicine-like products that can be sold directly to a consumer. OTC products are usually easily accessible products for the treatment of common and simple health conditions that are generally the symptomatic relief of mild situation as a self-care action. (2) The consumer behavior researches are relatively new/rare in the pharmaceutical market. This research area is very open to new studies to be conducted.

The objective of the study is to reveal which personal (health consciousness, risk averseness) and rational (price consciousness, the level of knowledge and involvement in purchase decision) factors affect consumers attitude towards OTC products and perceived behavioral control on OTC products. This research aimed to study the influencing factors on consumer purchase intention of OTC products in Turkey. The research model is based on Theory of Planned Behaviour (TPB). To develop a strong research model, a qualitative part of the research was designed. The qualitative part was established from a) In-depth interviews and focus group studies. Then, the quantitative part was structured to conduct a main survey to test the proposed model. At the final part, the research model was tested by structural equation modeling (SEM). The results indicated that health consciousness, and level of knowledge of the Turkish consumers affect their attitudes towards OTC products. Moreover, the level of knowledge and involvement in purchase decision affect perceived behavioral control of the consumer. Both attitude towards OTC products and perceived behavioral control are seen as the important predictor of purchase intention of OTC products. On the other hand, the subjective norm has no significant effect on purchase intention.

The findings of the qualitative and quantitative research of this research provided some suggestion as several strategies for the OTC manufacturers and marketers, and pharmacists and physicians, as also for policy makers to be taken into account. In addition, this study provided beneficial information to marketing literature in the area of pharmaceutical marketing.

ÖZET

Eczanelerde Tezgahüstü satılan (Over the Counter- OTC) ürünler kişilerin kendi kendilerine uygulayabilecekleri basit sağlık çözümleri için kullanılan ilaç grubudur. Özellikle kendi kendine tedavi uygulama (self-care) son dönemde önem kazanan bir kavramdır.. Son dönemde OTC ürün kavramı konusunda çalışmalar ve pazar hızlı bir büyüme gösterirken, bu alanda yapılan bilimsel çalışmalar hala kısıtlı sayıdadır. Oysa reçeteli ilaç alımından farklı olarak OTC ürün alımı, müşteri davranışlarını incelemek açılarından uygun bir alandır. Bu alanda daha fazla çalışma yapılmasına ihtiyaç duyulmaktadır.

Çalışmanın en önemli amacı, OTC ürün satın alma eğitimi ve algılanan davranış kontrolü üzerinde etkisi olan faktörleri belirlemektir. Bu çalışma, bireysel faktörler olarak sağlık bilinci ve riskten kaçınma, mantıksal faktörler olarak ta fiyat bilinci ve bilgi düzeyinin satın alma davranışı üzerine etkisini ortaya koyarken, bilgi düzeyi ve satın alma kararına katılımın algılanan davranış kontrolü üzerine etkilerini ortaya koymayı hedeflemiştir. Çalışmanın temel aldığı kuram olan Planlı Davranış Kuramı'na uygun olarak geliştirilen araştırma modeli test edilerek, Türk OTC ürün tüketicisinin satın alma niyetini belirleyen faktörler incelenmiştir. Modelin temelinin mümkün olduğu kadar sağlam olması için kalitatif öncü çalışmalar yapılmıştır. Çalışma da araştırmacı anket çalışması ile veri toplayarak modeli 'Yapısal Eşitlik Modeli'ne göre analiz etmiştir. Çalışma sonucuna göre sağlık bilinci ve bilgi seviyesi satın alma tutumunu etkileyen önemli unsurlar olarak belirlenirken, bilgi düzeyi ve satın alma kararına katılım algılanan davranış kontrolü üzerinde etkili bulunmuştur. Satın alma niyetinin satın alma tutumu ve algılanan davranış kontrolünden direk etkilendiği gösterilirlen, öznel normların satın alma niyeti oluşturmada etkili olmadığı gösterilmiştir. Çalışma sonuçları incelendiğinde, OTC ürün üreticilerine, pazarlama profesyonellerine ve hatta eczacı ve hekimlere yönelik bir çok stratejik öneriler getirilmiştir. Bunun yanı sıra sağlık otoriteleri için de değerlendirmeye alabilecekleri önemli veriler sunulmuştur. Ayrıca, OTC ürün alanında Planlı Davranış Kuramı'nı temel alan bir modeli test ederek, pazarlama literatürüne değerli bilgiler sağlamıştır.

INFLUENCING FACTORS ON PURCHASING INTENTIONS OF OTC (Over-The-Counter) PRODUCTS

1. INTRODUCTION

The preservation of health is certainly one of the most vital and major concerns of human beings. Pharmaceuticals are one of the primary components in the whole health related issues. The access to medicines is governed by special regulations.

In general, there are two main categories. These are described as ‘Prescription Only Medicines (POM) and OTC Over the Counter (OTC)’. POM drugs are subject to prescription from a medical practitioner to be given to patients. (CHPA, 2014)

On the other hand, Over-the-Counter (OTC) products are not subject to prescription. OTC has also two main categories. These are non- prescription drugs and other OTC products. The both of the categories are available for sale directly to a consumer and easily accessible by people. The OTC products are commonly used for the treatment of common and mild conditions or symptomatic relief as a self-care action. (Spadaro R, 2010)

There is a definition of OTC products that is declared by The U.S. Food and Drug Administration (FDA). This well-accepted definition is ‘the medications that can be used safely and effectively by the general public even without a prescription’. (<https://www.fda.gov/AboutFDA>)

Thus, OTC products are:

- Do not need a prescription from a physician.
- Can be easily bought from pharmacies.
- Are regulated through OTC regulations.
- Are chosen to the minor symptoms or conditions as a self-care action that does not require the physician’s guidance.

OTC market has continued to grow, due to recent innovations, increased importance of self-medication and increased access by expanding channels of distribution. The growth of OTC market has been fostered by recent drug deregulation measures that facilitate the change of status of some prescription-only drugs to over-the-counter status in many countries. (Brass, 2011)

Global Pharmaceutical Industry reached to 1.08 trillion U.S. dollars in 2015. In addition, OTC market has USD 120 billion U.S. dollars in 2015. In Turkey, Pharmaceutical Industry has 16.86 billion TL market size. In addition, OTC market has almost 5 billion TL market revenue in 2015. (<http://www.ieis.org.tr/ieis/tr/indicators/33/turkiye-ilac-pazari>)

Pharmaceutical Industry is a kind of highly regulated industry in all over the world. The degree of regulation depends on to the country's general regulatory environment and type of the product. Within all the regulations, the price regulation is one of the most important aspects of these regulations for pharmaceutical companies. As some of other regulations, pricing regulations change country to country. For example, in the United States, currently if a drug is in a non-government drug status, there is no direct price control of the government for these drug's sales. The majority of European countries has control over the drug prices. (http://ec.europa.eu/health/ph_overview/other_policies/pharmaceutical/pharma_forum_progres_report092006_en.pdf)

In Turkey, there is reference pricing system since 2004, a reference price system is a system where the authorities or the insurance companies fix a maximum reimbursement level for a group of medicines. It is assumed that such kind of arrangement in the pharmaceuticals market will increase the competition and thereby cause a decrease in the prices and government's expenditures on pharmaceuticals review. One of the main implications of reference system in Turkey was to foster the growth of OTC market. The main reason is the strategical decisions of pharmaceutical companies to switch the status of some drugs from prescription/reimbursed to non-prescribed/OTC (Tekiner, 2014).

Additionally, new healthcare regulations about co-pay by patients, patients needed to pay more for the drugs with increased co-pay and mandatory payment for each prescription. These two dynamics in healthcare system had a positive impact on OTC market to grow for last 12 years (Turkish Pharmacists Association, 2016). Besides these, key drivers of OTC market, there is an increase in the variety of new product launches. The stringent of the regulations of OTC drugs are lower when compare with the prescription drugs in terms of registration, promotion, pricing, distribution. (Turkish Pharmacists Association, 2016)

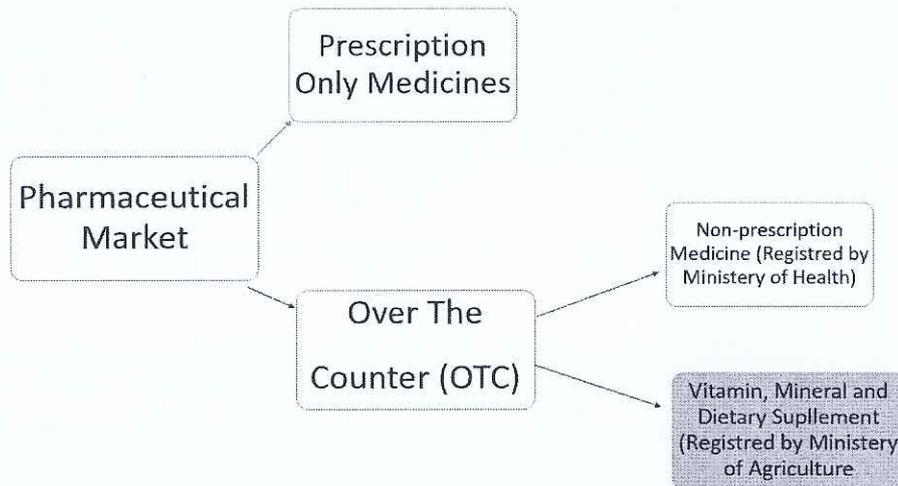
In Turkey, as in globe, there are two main segments of OTC categories. The first one is drugs that have nonprescription status but had registration from Ministry of Health. Some of them have reimbursement from general health insurance system. Non-prescribing drugs, most are switched from prescribing status to OTC status due to current healthcare regulations and/or strategical decisions of pharmaceutical companies. This segment of OTC can be categorized as: Analgesics and Pain Killers, Nonsteroidal antiinflammatory drugs (NSAIDs), Cold and flu drugs and Anti allergic drugs, Antacids, Contraceptive etc. Second segment includes OTC products that are classified as vitamin, minerals, dietary supplement, skin&hair care, herbal ingredients etc., This segment of OTC products are subject to registration approval of Ministry of Food, Agriculture and Livestock. This segment of OTC products has price flexibility and direct-consumer advertisement possibilities. One of the main characteristics of the second segment of the OTC products is that they have no reimbursement in Government Healthcare Insurance. Nearly all cost of OTC drugs are from out of consumer's pockets (Brass, 2001).

The regulation on the point of sale of the OTC products may change country to country. For example, in the United States, OTC products can be purchased from retail markets. Thus, people in USA can purchase such products from pharmacies or from non-pharmacy outlets. But in Turkey, all pharmaceuticals, both prescription only drugs and OTC products have to be sold in Pharmacies. Only OTC products that are subject to rules of Ministry of Food, Agriculture and Livestock can advertise the products. Besides, only some vitamins, minerals, dietary supplements and weight loss

preparations, Dermocosmetics can be sold online. But there is a big concern about online sale in terms of quality and reliability. One of the hot topics in OTC market is that there is no ‘OTC legislations’ yet in Turkey. There are some discussions of related parties with the government, workshops and some proposal from non-profit organizations of Pharmacists to the government to establish an ‘OTC legislation’ in Turkey.

OTC segment of Pharmaceutical Market is chosen as a research focus. Why has this category of OTC drugs been chosen as a research focus? The consumer behavior researches are relatively new/rare in the pharmaceutical market. There is a need to examine influencing factors of consumer behavior when people pay for any health-related product and services. The scope of the thesis is only OTC products, but the model may be applicable for any other health-related products and services.

Figure 1. Diagram of Pharmaceutical Market Segments (prepared by the researcher)



The chosen segment of OTC market has some similarities with FMCG market (especially food consumption) whereas, there are many differences in terms of public

perception and beliefs. The research models and approaches on FMCG market can be modified to understand buyer purchase behaviour of OTC drugs.

The aim of this study is to examine the factors of consumer purchase behavior related to purchase of OTC drugs in Turkey.

1.1. Aim of the Study

OTC products have great market potential and it is continuously increasing in the world as well as in Turkey. There is limited number of previous relevant studies on OTC consumers. Strong academic research investigating how OTC consumers behave when decision making on OTC product purchase is an apparent need and the motivation behind this proposed study is to fill the gap to understand the determinants of Consumer Behaviour on OTC purchase.

There are some studies to investigate the aspects/dimensions of consumer behaviour on dietary supplements or personal care products (Bhaskaran & Hardley, 2002). Besides, there are some studies that investigate factors on the use of analgesics and flu drugs. (Lefterova, 2004). Most of the OTC studies are on attitude towards advertisement (Mintzes, 2001). There is a need to understand dimensions of consumer purchase behavior of OTC consumers in general aspects. There are some studies that mention the importance of OTC consumer behavior as a research topic. To summarize, OTC consumer behavior is an important subject to study because:

- (a) the OTC drug market has strong growth potential (Mintel, 2014a)
- (b) self-care and self-treatment are getting more importance among consumers (Mintel, 2014a)
- (c) OTC products are seen as first line health solutions by medical gatekeepers (e.g., health maintenance organizations, insurance companies) for cost savings (DeLorme et al., 2010)

Besides, from the managerial perspective, to understand the factors in determining consumers buying behaviour has become more important for pharmaceutical companies and pharmacists and also physicians in today's more competitive environment in Turkey.

Even though, the significance of over-the-counter (OTC) products are increasing in the healthcare marketplace. There is limited systematic research on OTC products consumer behavior.

In the newly published study in *International Journal of Marketing Studies* Panero&Persico (2016) presented a descriptive study: 'Attitudes Toward and Use of Over-The-Counter Medications Among Teenagers: Evidence from an Italian Study'. Another new study appeared in *Journal of Health Communication*, Huh et. al. (2016) proposed a new model to test consumer response to over-the-counter drug advertisement. The purpose of the study was to analyze the influencing factors in OTCA effects model. Yousif et. al. (2016) aimed to identify the factors that affect the decision to buy drugs without a prescription. Another study was published in *International Journal in Management and Social Science* from India, Kamath et. al. (2015) carried a descriptive study to show some characteristics of OTC consumers and some purchase behaviour. Second OTC consumer behaviour study from India, has been done by Rajesh Kanthe in 2010. Objectives of the study were mainly: to identify key influences on purchases of OTC medicines by consumers and Consumer shopping attitudes towards OTC medicines. The study showed that consumer purchase behaviour differs in genders, ages and point of purchase. Donald L. et. al (1994) in their research paper on "An assessment of consumer purchasing behavior for private label vs Brand name OTC products in chain pharmacies." Branding of OTC products has increased the cost of the product. The results have shown that there may be an association between perceived product quality and purchase decision. The result of the study also noted that all of the private-label products could resist a price increase before a majority of respondents would switch to the brand-name product. The results have shown that sixty-four percent of the respondents declared that they would change their purchase decision based on the recommendation of a pharmacist. The

pharmacist's plays an important role in promoting the OTC products either private labeled or branded OTC products. Consumers are ready to change their brands on the recommendations of the pharmacists.

There is a research from one of the European country that is from UK. George N. Lodorfos and colleagues have proposed a model which is based on Theory of Planned Behaviour to examine the relations of experience and repeat purchasing, trust, price sensitivity and subjective norms. This study used the theory of planned behaviour to search the influencing factors contributing to an individual's brand choice decision within the over-the-counter (OTC) pharmaceutical market (Lodorfos, 2006). There are some other studies that are investigating the factors influencing consumers' awareness, purchase intention and perceptions of OTC products. Most of these studies are from North America and Western Europe (Bush and Rabin, 1989; Payne, 1998; Hughes, 2002; Calamusa, 2012).

Due to the fact that OTC product concept is not well established in Turkey when compared with the North America and Western Europe, there are limited numbers of researches on Turkish OTC market. There are some recent researches and publication to understand OTC market in Turkey (Kirgiz, 2014). There are some researches on the pharmaceutical market on behavior, but almost all of them are on physicians' prescription behavior (Kisa, 2006; Toklu 2012). Besides many other aspects of OTC, the topics on customer attitude, perception, and knowledge and buyer behavior are open to be searched and understood. There is a clear need to understand Turkish OTC consumers' attitudes towards OTC products or about their related purchasing behaviour, and the general awareness of OTC products.

In this research, the behavior of Turkish customers will be studied. To have country specific data is important to understand cultural influences on consumer behavior of the related country. Because, consumer purchase behaviour studies on many different topics have shown that purchase behaviour shows country/culture specific characteristics.

As shown by some studies on many different research areas, consumer behavior of Turkish people differs in many aspects. Lightner NJ et al (2002), have shown purchase behaviour in e-commerce of Turkish and American university students are different from each other. Kaynak et al. (2001), conducted a study to show family decision making in US and Turkish families comparatively. Mutlu N. et al. (2007) have shown differences in consumer attitude and behavior towards organic foods for Turkey and Germany.

Consumer purchase behaviors of the Turkish people are studied in different markets, for example, food, beverage, wine, energy drinks, telecommunication etc.

There are some valuable consumer purchase behaviour studies that are specific to Turkish consumers. Sanlier N et al. (2010) studied the food market to evaluate the food purchasing behavior of consumers from supermarkets. Topcu Y et al. (2009) searched Turkish consumer attitudes toward food products, by taking Erzurum city as a sample case. Topcu et al. (2012) carried a research on purchase attitude and behavior of Turkish consumers towards Kahramanmaras type of ice cream as a local branded product. Ergin EA. et al. (2011) have shown Turkish consumers' perception and consumption of organic food. Gunay, GN et al. (2011) had a research on determinants of consumers' behaviour on wine consumption in the Turkish wine market. Koc B. et al. (2014) determined consumers' preferences for Energy Drinks Consumption. This study aimed to provide important insight into Turkish consumer behavior regarding OTC products by examining the factors that influence consumers' attitudes toward buying OTC products and consumers' purchase intentions for the products. Furthermore, this study will extend an application of the Theory of Planned Behaviour by examining the selected independent variables -intention relationship.

Thus, to determine the factors of purchase behaviour of Turkish consumers in OTC market is important for pharmacists, pharmaceutical companies and also other health related parties to create effective management and establish necessary legislations.

This study will propose a model for testing the variables from different aspects of purchasing intentions of OTC products. This study will be the pioneer of the analysis

of purchasing intentions in OTC product purchasing by testing several variables with such a complete research model that is based on Theory of Planned Behavior. The study aimed to reveal which personal (health consciousness, risk averseness) and rational (price consciousness, the level of knowledge and involvement in purchase decision) factors affect consumers attitude towards OTC products and perceived behavioral control on OTC products.

Therefore, in order to establish a strong research model, a qualitative study- (in depth interviews and focus group studies) are designed. Then, a quantitative study was conducted to test the effects of personality factors and rational factors of the consumers on the attitude towards OTC products and perceived behavioral control. The results are expected to reveal the antecedents of OTC consumer behavior in the market.

This research model may inspire other researchers to adapt these approaches to different areas of consumer purchase behavior

1.2. Scope of the Study

This study aims to analyze the effects of consumers' personal factors and rational factors on the attitude and intention towards OTC products. In the literature, there is no other study that aimed to analyze the influential factors on purchase intention with such variables. Therefore, this study has aimed to be the pioneer in this field.

OTC products are as described by FDA, includes both non-prescription drugs and other over the counter products that are sold in pharmacies and retail markets. The focused segment of this research in OTCs will be the OTC products that are registered by Ministry of Food, Agriculture and Livestock. These are mainly categorized as Vitamins, Minerals, and Dietary Supplements and Herbal derived remedies. Details of these products can be listed as Vitamins (Multivitamin Complex), Vitamin A, Vitamin B1, Vitamin B12, Vitamin B6, Vitamin C, Vitamin D, Vitamin E, Vitamin K) Mineral Supplements (Iron, Calcium, Magnesium, Chromium, Folate, Iodine, Zinc, Riboflavin, Selenium, Thiamin, etc.) Dietary Supplement (Fish oil, other

essential oils, Garlic Ginger, Ginkgo, Ginseng, Coenzyme Q10, Glucosamine Goldenseal, Grape Seed Extract, Herbal Dietary Supplements, Probiotics, Aloe Vera etc.).

This study is designed to reveal the factors affecting purchase intentions of OTC products with the Turkish consumers.

1.3. Objective and Research Questions

The research problem and objective for this study is to find out the structure, conditioning and new understanding of consumers' purchase behavior in relation to OTC products in Turkey. As summarized above, to date, there is no theoretical framework or model that attempts to evaluate the overall OTC product purchasing behavior of Turkish consumers.

The Theory of Planned Behaviour is used in order to understand the underlying dimensions that can predict consumers' willingness to purchase OTC products. The main research question is: *"What are the factors that influence OTC consumers' purchase intentions?"*

Hence the research aim is to investigate the various determinants and elements which influence consumers' purchase behavior of OTC products in Turkey.

1.4. Definition of OTC Products and Market

Over-the-counter (OTC) products are medicines and also related health products that are not subject a prescription from a healthcare professional and easily accessible directly by the consumer.

In many countries, OTC products are selected by a regulatory agency to ensure that they are ingredients that are safe and effective when used without a physician's care.

In Turkey, the definitions of prescription drugs and OTC products in the legislation are clearly written in Official NEWSPAPER of the Republic of Turkey, 2009. The prescription drugs can only be dispensed with a prescription and on the other hand, OTCs don't require a prescription.

According to the Regulation on Human Medicinal Products Licensing, dated 2005, during the approval process drugs are defined as prescription or OTC.

OTC Products categories in Turkey currently are as follows: (Official newspaper of the Republic of Turkey, 2009)

- Products with drug status, which have registration from Ministry of Health
- Products with drug status, which have no reimbursement
- Products that are not in drug status anymore, have no reimbursed, and not subject to pricing regulation.
- Products, with the approval from the Ministry of Food, Agriculture and Livestock, C/E certificated products, vitamins, minerals, food supplements, baby foods, and products in cosmetic status.

The Pharmaceuticals and Medical Preparations Law, dated 1928, declares that drug can be sold only in community pharmacies in Turkey (Official NEWSPAPER of the Republic of Turkey, 1928). Only very limited group of OTC products- that have non drug status, are permitted to be sold in supermarkets. This study will be carried on pharmacy customers and for the products that have only sales permission for pharmacies.

The Ministry of Health of Turkey regulates the promotion of human medicinal products taking into account the advice of the World Health Organization. The provisions mention that advertisements are forbidden to society, they can be made only to the professional medical community (Official NEWSPAPER of the Republic of Turkey, 2011). But Radio and Television Law entered into force in 2011. "If OTC product has a registration from Ministry of Food, Agriculture and Livestock,

advertisements can be done honestly and in a sort of verifiable way” (Official newspaper of the Republic of Turkey. Radio and television law, 2011).

OTC medicines are not subject to physician prescription and their utilization. Their consumption depends directly on the level of knowledge of consumers, past experience, established preferences and satisfaction of the consumers. Unlike prescription medicines, OTC products can be promoted directly to consumers in most countries. The characteristics of OTC market, recent booming in product variety, advertisement-free situation, increased concern in self-care, paying from consumers own pockets, etc. also increase the complexities of OTC product therapies and consumers’ decision-making processes, and product selection becomes more and more difficult (ISMP, 2007).

In 2015, the global market for over-the-counter (OTC) drugs valued at USD 120 billion and is estimated to scale up to USD 133.25 billion by the end of 2016. (IMS Health, Press Release, March 2017) Consistently, the OTC market is now a key source of business expansion and competitive edge for pharmaceutical companies.

Turkey has a strong the pharmaceutical sector that is in the first 15 largest countries of the world. The Turkish pharmaceutical market is the 6th largest pharmaceutical market in Europe. In Turkey there are affiliates of almost all of the multinational pharmaceutical companies. Besides, there are approximately 300 domestic pharmaceutical companies and 49 pharmaceutical manufacturing facilities in Turkey.

The OTC pharmaceutical market in Turkey was valued at \$2 bn in 2015, having witnessed year-on-year growth of 14%. In 2015, the analgesics category led the market with a share of around 25% by value, followed by the cough, cold and allergy category at 21% and vitamins and minerals at 16%. New pricing regulations have led to a decrease in the prices of all OTC products in the country. As a result, pharmacies stopped stocking the medicines with an aim to buy it after the discount was applicable. The number and variety of OTC products consumption are increasing day by day in Turkey. (Association of Research-Based Pharmaceutical Companies- AIFD- Vision 2023 report, released in 2013).

2. LITERATURE REVIEW

2.1. OTC Products and Market

Before proceeding to the issues related to consumer behaviour of OTC drugs, it is necessary to know the ground realities of the Turkish OTC products' market

As it is described, OTC products are medicament products that can be purchased without any prescription requirement from a physician.

OTC Product concept in Turkey is a relatively new development both in its consumption and related marketing strategies. The pharmaceutical area is always under question. There is a negative perception of pharmaceutical business in terms of the relationship with healthcare providers and pharmaceutical companies have produced skepticism towards both the pharmaceutical industry and other related parties. (Semin, 2006; Buken, 2003) On the other hand, pharmacies are seen as the closest and reliable healthcare providers in the eyes of the general Turkish people for a long time period. (Naymansoy, 2010)

There is increased the responsibility of retail pharmacies to inform and educate consumers on the safe use of self-medication products. Thus, due to being the main point of sale, pharmacies and pharmacists as a healthcare provider have an increased importance and role in OTC business. (Wertheimer 2008)

WHO has a definition of the role of the pharmacist in self-care and self-medication as 'a communicator, quality drug supplier, trainer and supervisor, collaborator and health promoter'. A pharmacist is a link between the people and the Pharmaceutical Industry. Pharmacist is regarded as a primary guidance of the consumers for better health. (WHO, 1998; The World Self-Medication Industry-WSMI, 2009; Rutter, 2015)

All pharmacies have the right to sell both prescribed and non-prescribed OTC products- including the drugs that are registered by Ministry of Food, Agriculture and Livestock. But, a group of pharmacy that is called pharmatics pharmacies, has more

strategical focus on selling vitamin, minerals, wellness products, food supplements, Dermocosmetics etc. (Gulpinar, 2014)

An American study provided some valuable information about pharmacist's roles from the consumers' perspective. Gore and Madhavan (1993) carried a survey among US consumers to understand the level of credibility of physicians, pharmacists, family members, and friends/colleagues as an information source for OTC medicines. The results have shown that a both pharmacist and physician recommendations were highly acceptable with a ratio of 75% and 76%, respectively. Moreover, more than half of respondents usually or sometimes accepted recommendations from their family members or friends/colleagues.

Several other surveys show that pharmacist recommendations have a high acceptance rate by consumers.

Rakesh Pahwa and co-workers (2008) in their research article "Role of pharmacist in safe use of medicines" analyze the role of chemists in the changing scene of OTC marketing. They showed extended role and involvement of a pharmacist in the safe use of medicines in terms of self-treatment concept. As a sum, pharmacist becomes more crucial body of healthcare arena.

2.2. Decision-making in OTC Drug Purchase

OTC products are the main components of self-care approach. Self-care can be described simply that individuals are taking part of the decisions about their health and overall well-being. Moreover, self-care means to take an active role in protecting, maintaining, and improving their own health status. The definition of self-care from WHO: *'Self-care refers to unorganized health activities and health-related decision-making by individuals, families, friends, colleagues at work, etc.; it includes self-medication, self-treatment, social support in illness, first aid in a 'natural setting', i.e., the normal social context of people's everyday lives. Self-care is definitely the primary*

health resource in the health care system. To use any drug in self-care, is called as self-medication.'

The decision process of self-medication depends not only on individual's level of knowledge, attitudes and practices regarding health, disease and medication, but also on cultural and social factors. Pharmacists and Physicians still play a leading role in the self-medication decision-making process, as they are considered the most trustworthy sources of information (Nahri, 2007; Wazaify, 2005).

Calamusa et al. (2012), stated that effective self-medication requires some critical abilities of individuals. These can be listed as follow:

- to recognize the symptoms,
- decide to treat them with the suitable OTC medicine.
- be aware of the potential adverse effects and risks,
- to seek advice from physicians promptly when it is necessary

Some researchers have pointed out that the decision-making process concerning the health of individuals is not a simple process. The reasons of this complexity can be summarized as follows: the decision making process on health issues are highly informative (Arrow, 1963) and the process contains some main uncertainties and trade-offs (Hunink et al., 2014) and perceived substantial physical and psychological risks (Jacoby & Kaplan, 1972).

Some characteristics of the OTC market are similar to characteristics of consumer goods markets, consumer research emphasizes that OTC products generally are perceived as medications rather than regular consumer goods (Taylor, 2003). Thus, for OTC products as compared to consumer goods, different factors may be important for consumers' decision-making. Until now, only a small body of research has explicitly addressed OTC product decisions in a marketing context. Some of the studies are summarized below:

Narayanan et al., (2005) defined medical products are as experience goods that have intangible product characteristics. Bissel et al., (2000) emphasized inherent risks of any health related products. Unlike prescription drugs, which are prescribed only by a physician, OTC product' consumers rely on their own judgment when they purchase or use. These consumers likely perceive some risk in self-diagnosing with regard to determining their most suitable treatment. Many people who are seeking an OTC solution to their health problems may prefer to receive guidance from a pharmacist or a physician to reduce their perceived risk (Grewal, 1999).

Moreover, evaluation of a drug's effectiveness is not so simple. The effects of a drug vary from patient to patient and also drug-drug interaction may differ the effectiveness when taken in combination with other medicines. (Katz, 2007). Since the effect of a drug on health conditions can be clearly understood by only through use, prior experience with and knowledge. Thus, prior experience, knowledge on the products and personal involvement play significant roles in purchase decisions (Gönül 1999; Akçura, 2004). Additionally, assessment of the quality of most consumer goods can be relatively easy, but it is fairly complicated in health related issues, precisely in the case of drugs. Because of the difficulty to assess the quality of drugs, patients may hesitate to switch once they have found a drug that works for them (Gönül 1999).

Gönül (1999) has shown that patients exhibit some price expectations for OTC products. The result showed that prior purchases of a brand, rather than price concerns, influence actual OTC product purchases. Akçura et al. (2004) resulted that there is a low price sensitivity of the demand for OTC products. Moreover, the level of price may be seen as an important indicator of quality when other quality cues are missing. Thus, patients may tend to choose more expensive drugs. Price-related competitions may be inadequate to enhance sales performance, whereas other promotional tools-awareness programs, loyalty programs, trainings, testimonials, and etc. and non-price marketing instruments may be more impactful (Ling, 2002).

Hollis Ashman et.al (2008) wrote a research paper on' Consumers choice for OTC products & supplements in the healthcare arena'. The research approach was

established to understand how consumer responds to certain areas of OTC healthcare products, for example, how they respond to medical shampoo suggestions as a product.

Anna Birna Almarsdottir (2000), her research named as 'Over-the-counter use in Iceland: the impact of increased accesses. The main objective of this study was to examine community pharmacy ownership in Iceland. This may lead to increased irrational use of over-the-counter pain reliever.

Burak, L., and Damico, A. (2000) in their research paper on "Effects of direct-to-consumer advertising of pharmaceutical products on college students" has analyzed the impact of promotional activities on students. The study describes college and university students' use of widely advertised pharmaceutical products. Results have shown that the majority of the students used at least one of the advertised products. Most students did not discuss the pharmaceutical products with their physicians or discuss the conditions for which they reported they were taking the drugs.

There is another research from Jisu Huh (2015). He has carried a consumer research to test a model of consumer response to OTC advertisement. According to his findings on OTCA, product involvement is one of the key antecedents that induce attention to the advertisement.

Mina Lee (2015) has focused on determining the factors that influence the consumers' attitudinal and behavioral outcomes to the advertisement. The measured variables included demographics (age, gender, race, education, and income), health-related characteristics (health status, prescription and over-the-counter drug use, health consciousness, and involvement with prescription or over-the counter products). The findings indicated that exposure to drug advertising is one of the most significant predictors of attitudinal and behavioral outcomes. Some other factors such as health status, involvement with drugs, health consciousness, drug use, income, and age also have an influence on consumer' responses to drug advertising.

K. Gyaneshwari (2016) examined the determinants of consumers' attitudes and intentions to exhibit brand loyal behavior towards OTC products. Specifically, this study employed the theory of planned behaviour to investigate the antecedent factors

contributing to an individual's brand choice decision within the over-the counter (OTC) pharmaceutical market. In addition, several hypotheses in relation to the Theory of Planned Behaviour were investigated. This study's results suggest that direct experience with the brand, price tolerance, brand trust and the subjective opinions of others are important determinants of repeat purchase behaviour of OTC pharmaceutical products. Price sensitivity had a significant effect on attitude to repurchase. Past personal experience with the brand is critical determinants to create beliefs about the trustworthiness of the product, price sensitivity and purchase behavior.

Anne Holst & Julie Maria Iversen (2011) studied 'An Application of a Revised Theory of Planned Behavior: Predicting the Intention to Use Personal Care Products without Endocrine Disrupting Chemicals'. The Theory of Planned Behaviour is revised by the inclusion of Self-identity construct to test. Hence, the study concluded that the specific role of self-identity within the TPB model was indeed as an independent contributor. Moreover, the study found that the construct of self-identity served both as an influence on attitude and also as an independent construct in its own right.

Vani Nikhil Laturkar (2015)'s study is about purchase behaviour of consumers in relation to OTC herbal products in India. Main findings are that preferences and consumptions of various herbal product categories are strongly influenced by socio-economic structures and the suggestion from socially important opinion leaders is determining the choices of herbal OTC products. Additionally, the advertisement on TV and other media is one of the main factors on consumers when they decide. The advice of family relatives and friends are also influential on purchase decisions. The last determinant stated as retailers. Moreover the company image of the purchasing product is also stated as an important factor.

Pujari Neelkanth M (2015) aimed in his survey to identify the population's perception of herbal products. Several factors can influence the consumer's perception, causing it to change in certain ways. Self-perception, price perception, brand perception, Benefit perception and buying strategy are keys of a behavioral study of consumers. A survey-based study was carried out among the adults in a rural /urban population of India to

assess the consumer's buying behaviour and perception to herbal product for health care, in Kanpur region. The conclusion summarized that people have lots of self-interest and belief in herbal medications, the doctors and advertisements of products in any kind of media can influence the people to purchase the herbal pharmaceutical products.

Mihaela-Roxana, I., & Yoon, C. C. (2010) had a research on 'Analyzing the Effects of Product Label Messages on Consumers' Attitudes and Intention. The aim of this study was to examine and determine the effect of the customers' perception of product labels on the attitudes toward the product and the labels' intentions. The model proposed for this study attempted to determine factors that can impact consumers' attitudes and intention towards sugar-free beverages, by applying theories such as the tri-component perspective on attitudes. The proposed model is explained by the tri-component (Schiffman and Kanuk, 2003; Rosenberg and Hovland, 1960) view of attitudes.

Nuntasaree Sukato (2009) designed a research to understand the male consumer behaviour when purchase a skin care products in Thailand. Theory of Reasoned Action model is employed as a theoretical model establishment. The results of the study show that beliefs, self-image, normative influences, and attitudes have impacts on purchase intention and purchase behaviour in buying skin care products among male consumers.

Ashman et. al. (2008) presented a model to examine the consumers' responses to over-the-counter (OTC) healthcare. The aim of the study is to understand the ways of information processing of consumer processes on health issues.

Sean Henry Lee (2005) in his thesis studied on 'Application of a Five-Stage Consumer Behaviour Decision Making Model: An Explanatory Study of Chinese Purchasing of Imported Health Food.' This research benefit from Theory of Consumer Decision Processing that is modified to 5 staged Consumer Behaviour Decision Making Model.

Julie Aker (2014)'s research was on selection behavior of OTC consumers' when purchasing from the retail market. The aim of this study was to understand how consumers navigate through the retail space to locate and select OTC products. The result has shown that consumers use both the trusted brand name and the familiar trade

dress to select to the OTC product(s) when they need. The decision on OTC product selection depends on a combination of factors, such as the popularity of a brand, urgency to use, and the price.

Anne Walker (2004) studied the pharmacists' beliefs and intentions about the treatment of vaginal candidiasis with non-prescription medicines that based on the Theory of Planned Behaviour. This is not the study of end consumers behaviour, but behaviour of pharmacists' who have mostly critical role on decisions of patients with their consultancy. In this study, TPB was used to look for the psychological variables that influence community pharmacists. TPB provides a valid and useful summary of the key psychological variables influencing practice.

Sujit S. Sansgiry (2001) objective of this study was to examine the effects of consumer involvement in information processing from over-the-counter (OTC) medication labels. The results show that there is a positive correlation between the consumer involvement and to understand information from the label and evaluate it.

Walsh, Anne M. (2007) studied on factors on intentions of parents to reduce childhood fever with medications. This study tested a conceptual model for the intention of parents to reduce their child's next fever with medications. The model based on the TPB. The background factors were analyzed as the direct and indirect effects of education, number of children, health industry experience, and child medication behavior. The model examined the effect of these factors on attitudes, subjective norms, perceived behavioral control in decision making, and intentions. According to the result, attitudes or perceived behavioral control are not the strongest predictors of intention. The strong normative influence found in this study is important, particularly when health professional recommendations and use of medications for fever management is considered.

Joyce L. Grahn (1979), carried one of the earliest studies on consumer behaviour on OTC products. Findings showed that level of comprehensive information on label area is critically important. At low levels, simple items such as brand name, active

ingredients, and manufacturer were remembered. At high levels, graphics and color highlighted certain areas and apparently subjects concentrated on and remembered those areas. Thus, a logical explanation is that reduced readability levels, color, and graphics impacted comprehension.

Mina Lee (2012) has carried a research for Ph.D. thesis to understand both Direct To Consumer Advertisement and OTC Advertisement effects in terms of how exposure to DTCA and OTCA influences consumers' attitude toward and behavioral outcomes of DTCA and OTCA and what kind of audience factors can influence the process. For OTC products, both direct and indirect influences of OTCA are examined in this study; for example, purchase behaviors prompted by OTCA are considered to be direct effects of OTCA, whereas communication with doctors, friends or relatives, and pharmacists and information searches triggered by OTCA are considered to be indirect effects of OTCA. The mechanisms through which consumers respond to DTCA and OTCA were explained by two distinct models in this study: one based on the modified Hierarchy-of-Effects model and the other based on the Consumer Socialization framework.

Jan Svorc (2012) studied on major influencing factors on the consumer's intentions to shop medicaments online in the Czech Republic. The model of the study based mainly on theoretical models such as Technology Acceptance Model. The first aim of this research specifically to identify the relationship between the intentions and perceived usefulness, perceived ease of use, perceived risk, past experience, consumer trust and consumer social norms. The second aim is to determine the differences in intentions to purchase the drugs online. The study comparatively analyzed the differences among the main demographic groups based on age, gender, income and education. The results revealed that the positive relationship between consumer's intention to shop medicaments online and all studied variables. According to the results of the multiple regression analysis, only perceived risk and perceived usefulness are the significant determinant for intention. There are no meaningful differences among the demographic groups i.e. age, gender, income and education.

Artur Turek (2014) aimed to identify the influence of individual determinants on the consumption behavior of OTC painkillers and OTC anti-inflammatory medicines. In this article, the factors that affect consumption behavior of OTC painkillers and OTC anti-inflammatory medications can be identified as (i) demographic determinants: gender; age; number of persons under 14 years of age in the family; place of residence; (ii) socio-economic determinants: salary; receiving pension; employment status; level of education; (iii) behavioral determinants: health condition assessment; behavior in case of sickness, pain or any discomfort; number of medical visits; consultation use of OTC painkillers and OTC anti-inflammatory medications with the doctor or pharmacist if these medications are used for the first time; reading the medication leaflet contents if the drug is used for the first time; views on the possibility of the harmfulness of OTC painkillers and OTC anti-inflammatory medications use; concomitant use of gastrointestinal drugs with OTC painkillers and OTC anti-inflammatory medications.

Gianluigi Guido (2014) aimed to study the psychological factors of credibility and store image that may affect customers' intention to purchase OTC products from retail markets. The study compared the beliefs of two different groups of Italian consumers. These groups are established from customers who prefer to purchase medicine from traditional pharmacies or from the newly authorized supermarkets. This study aimed to examine the importance of service about drug guidance of pharmacists to fulfill customers' expectancies.

Peeter Villako (2012) carried a research to evaluate determinants of purchase intention of prescription or OTC medicines from pharmacies in Tallinn, Estonia. The second aim was to identify the importance level of community pharmacists in counseling of prescription and OTC medicines. According to the result of this study, recommendations given by health care professionals were the main influencing factor on the purchase of medicines from community pharmacies. The level of price emerged as another influencing important factor for purchase intention. In the selection of both prescription and OTC products, the customers expected to have the professional

guidance from a pharmacist. In addition, pleasant, confidential and fast service were declared as important factors on intention.

Sireen A. Shilbayeh (2011) purposed to understand the importance of knowledge, attitudes and professional practices of Jordanian community pharmacists by giving professional guidance to patients about consumption of vitamins in a proper way. This research showed that there is enough awareness of community pharmacists about their role in counseling.

Andrea Calamusa (2012) evaluated information needs how to use self-medication in a proper way. The study aimed to show the functional health literacy of Italian consumers, specific knowledge and risk awareness about over-the-counter (OTC) medicines. The results showed that there is a gap in understanding the vocabulary of package leaflets and the ability to calculate maximum daily dosages. Moreover there was low awareness of risk status, i.e. situation related to drug interactions and misuse/abuse.

Ooi Say Keat (2009) had designed cross sectional study. This research aimed to examine the main determinants of consumer's purchase intention on dietary supplement products in Penang. The research model was based on Theory of Planned Behaviour (TPB). The results showed that subjective norms, the importance of price and health consciousness have importance on attitude formation. Attitude has a positive correlation with purchase intention of dietary supplement products. If one is already user of any dietary supplement, he/she shows stronger intention to purchase dietary supplement products, more positive attitude, with stronger perceived social pressures to purchase, perceived more availability, place more importance on price and have higher level of health consciousness compared to one who is not user of any dietary product.

Mohammad Shohel (2013) aimed to investigate attitudes and intentions of consumers in terms of brand loyal behavior in Bangladeshi consumer on over the counter (OTC) products. This is a cross-sectional survey. In this study, the Theory of Planned Behavior was used. The experimental result suggests that the annual income, price sensitivity

influence the decision to buy an OTC product. Moreover, experienced with an OTC product cannot influence an individual's beliefs about the trustworthiness of the brand. Furthermore, individual's beliefs about the trustworthiness of an OTC product create less sensitivity to price.

Wenbo Wang (2009)'s purpose to understand consumer preference for health remedies. This research had a framework for examining consumer perceptions and preference for Traditional Chinese and Western Medicine in China.

Joanna Woźniak-Holecka (2012) tried to evaluate the awareness in the studied group of people concerning purchasing and usage of the OTC products. The essence of the research was to determine whether factors as: education, income, type and place of work influence purchase and use of OTC products. According to the results: Pharmacies are the most popular place to buy drugs without prescription and pharmacist's opinions are most useful for the consumer. Income is positively correlated with the number of purchased OTC products. People with higher monthly income spend more money on OTC medications. OTC medicines are most frequently used by medical staff. Respondents' knowledge about the OTC analgesics drugs compositions is not sufficient.

Lezley-Anne Hanna (2011) has designed a model to examine determinants which may affect purchase decisions of customers in relation to over-the-counter (OTC) medication. This research examined the factors for the customers in Northern Ireland when they purchase any OTC products.

Hana Lostakova (2012) studied purchase behaviour of online customers of pharmacies. The purpose of this research was to explore the reasons why customers shop from internet pharmacy.

Phuong Nguyen (2012a) carried a study to examine the relationship between previous experience and intention to repurchase in Vietnam'. The research model based on the Theory of Planned Behavior (TPB).

Phuong Nguyen (2012b) examined the important factors on the re-purchase behaviour of anthelmintic medications. The research model was designed to test relative

importance on intention and actual behavior of mothers of school-age children to use these drugs. Research model was based on the Reasoned Action Model.

As a summary, the research models that were used in the analysis of OTC purchase behaviors are reviewed below.

Table 1. Summary of key attributes measured with associated theory in studies relating to OTC products

Author and year	Key attributes measured	Associated theory
Jisu Huh (2015)	Response to Advertisement	Hierarchy-of effects
Mina Lee (2015)	Attitudinal and Behavioral Responses	Hierarchy-of effects
K.Gyaneshwari (2016)	Consumers' attitudes and intentions & Price sensitivity	Theory of planned behaviour
Anne Holst & Julie Maria Iversen (2011)	Self-identity & attitude	Revised Theory of Planned Behavior (inclusion of Self-identity)
Vani Nikhil Laturkar (2015)	Socio-economic structures & influence of ad. & company image & Brand Image	Explanatory Study
Pujari Neelkanth M (2015)	Self, Price, brand, benefit Perception &	Explanatory Study
Yoon C. Cho (2010)	Consumers' Attitudes And Intention & the cognitive and emotional aspects of awareness	The tri-component view of attitudes & Hierarchy of Effects

Author and year	Key attributes measured	Associated theory
		&value-expectancy model
Nuntasaree Sukato (2009)	Beliefs, self-image, normative influences, and attitudes	Theory of Reasoned Action
Hollis Ashman (2008)	Product information & self-profiling & Demography	Explanatory Study
Sean Henry Lee (2005)	Cultural factors & WOM & Price & Demography & situational	Theory of Consumer Decision Process (5 stages)
Julie Aker (2014)	Brand & Situation & place & demography	Explanatory Study
Anne Walker (2004)	Pharmacists' influence & psychological variables & beliefs and intentions	Theory of Planned Behaviour
Sujit S. Sansgiry (2001)	Information processing & attitude-towards-product label	Motivation theory
Joyce L. Grahn (1979)	Consumer Information Processing & brand name, active ingredients, and manufacturer	Explanatory Study
Mina Lee (2012)	Attitude toward and behavioral outcomes of DTCA	Modified Hierarchy-of-Effects & Consumer Socialization framework.
Jan Svorc (2012)	Intentions and perceived usefulness, perceived ease of use, perceived risk, past experience, consumer trust and consumer social norms, demography	Technology Acceptance Model

Author and year	Key attributes measured	Associated theory
Artur Turek (2014)	demographic & socio-economic & behavioral & determinants&	Motivation Theory
Gianluigi Guido (2014)	Situational dimensions & Beliefs, Effect of place	Explanatory Study
Peeter Villako (2012)	Price & Pharmacists	Explanatory Study
Sireen A. Shilbayeh (2011)	Knowledge, attitudes and professional practices	Explanatory Study
Andrea Calamusa (2012)	Health literacy, specific knowledge and risk awareness	Explanatory Study
Ooi Say Keat (2009)	Intention & attitude & price and health consciousness	Theory of Planned Behaviour
Mohammad Shohel (2013)	Beliefs & price	Theory of Planned Behaviour
Imam Salehudin (2011)	Intention to switch & product specificities	Theory of Planned Behaviour
Wenbo Wang (2009)	Perception & preference	Explanatory Study
Joanna Woźniak-Holecka (2012)	Awareness & demography & Influence of pharmacists	Explanatory Study
Lezley-Anne Hanna (2011)	Demographic Profile & perception	Explanatory Study

Author and year	Key attributes measured	Associated theory
Hana Lostakova (2012)	Internet purchase reason & frequency	Explanatory Study
Phuong Nguyen (2012a)	Past behavior & Intention & Demography	Theory of Planned Behavior
Phuong Nguyen (2012b)	Attitude & salient behavioral and normative beliefs & subjective norm, and perceived behavior & predicted intention	Theory of Reasoned Action
Walsh, Anne M. (2007)	Attitudes and subjective norms: determinants of parents' intentions to reduce childhood fever with medications.	Theory of Planned Behavior
Pineles, Lisa L (2012)	Using the theory of planned behavior to predict self-medication with over-the-counter analgesics	Theory of Planned Behavior

As it can be seen also from literature review, to understand the consumers purchase behavior in OTC products is open to be researched.

The proposed conceptual framework is developed for a detailed review of the relevant topic of literature and is designed to address the research questions. As it is seen from previous researches, the model based on TBP is one of most relevant strategy to reveal factors behind OTC purchase intention. And the rationale behind the proposed research model will be explained under the light of this strong research background.

2.3. Proposed Research Model:

Despite their importance, the proposed conceptual framework for the current research is unique to examine such a wide range of variables from different aspect on OTC market.

There are many studies in diverse research areas that based on the theory of planned behaviour. For this research, a conceptual model (Figure 2) is constructed to illustrate the factors that influence the purchasing intentions of Turkish consumers towards OTC products.

The Theory of Planned Behavior (TPB) predicts the cognitive factors of behavioral intentions (Ajzen, 1991; Ajzen, 1985). It declares that there is a strong relationship between behavioral intentions and behavior. Behavioral control identifies the determinants of behavioral intentions in situations where people do not have complete volitional control and when people are not necessarily motivated to or interested in changing behavior (Ajzen, 1991; Ajzen, 1985; Armitage 2001) The TPB has large predictive ability in health related behaviors. This has been demonstrated through a number of reviews including metaanalyses (Godin 1996; Armitage 2001 and Albarracin 2001)

In according to the TPB, there are three main factors to create people's intention to develop a behavior:

- "attitudes toward the behavior or the degree to which performance of the behavior is positively or negatively valued;
- subjective norms or the person's perceived social pressure to engage or not engage in a behavior and
- perceived behavior control, their perceptions of their ability to perform the given behavior" (Ajzen, 2006).

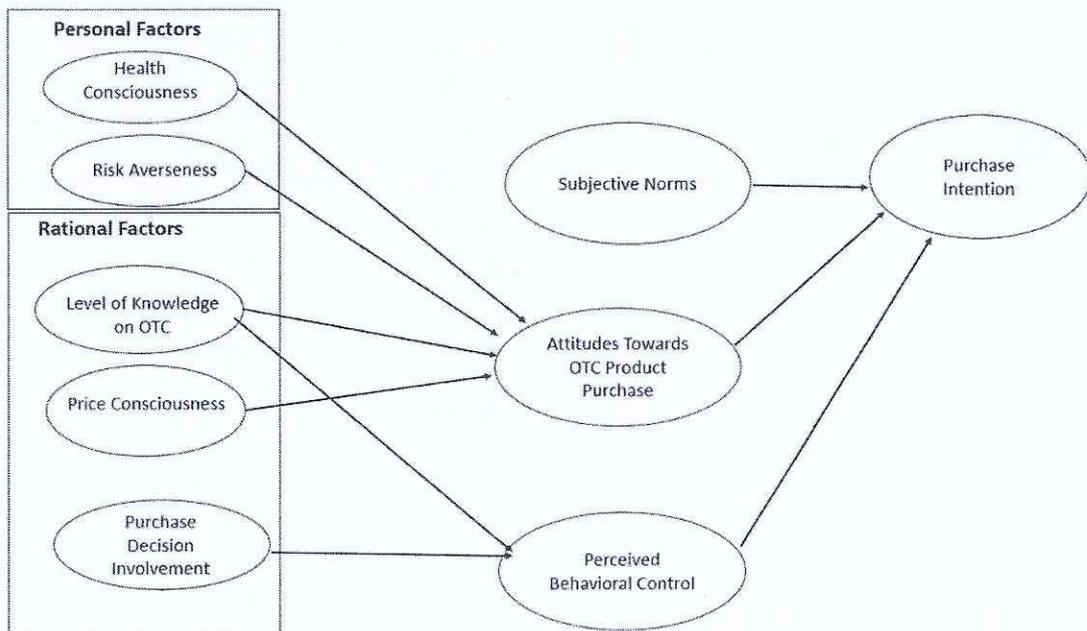
According to TBP, a person intends to perform a behavior if there is a positive evaluation. Attitudes are mainly formed by a person's belief in the positive or negative implications for a behavior and their evaluation of those beliefs. Subjective norms are

formed by beliefs about the behavior people or groups. These are considered as an important for the person who is motivated to comply with these beliefs. Perceived behavioral control includes beliefs about control over the behaviour and confidence in performing the behaviour (Ajzen 2006).

As the aim of this study is to identify the determinants of purchase intentions for OTC products rather than the actual behaviour of buying them, the TPB will only be applied up to the 'intention' component.

This study tested a conceptual model of consumers' intentions to purchase OTC products, based on the TPB, by assessing the direct and indirect effects of background factors (personal factors: health consciousness and risk averseness; rational factors: level of knowledge, price consciousness and involvement in purchase decision) on attitudes, subjective norms, perceived behavioral control in decision making, and intentions.

Figure 2. Proposed model for OTC products attitudes and purchasing behavior.



Prepared by the researcher.

2.4. Review of Variables in the Proposed Research Model:

The Theory of Planned Behavior (TPB) is a comprehensive model that analyzes the formation of behavioral intentions as a basis for explaining behavior (Ajzen, 1991). TPB maintains that intention depends on three predictors: one's attitude toward the behavior that is the affective disposition toward the behavior, one's subjective norm that is the one's perception of the social pressure put on him/her to engage in the

behavior and TPB considers also perceived behavioral control that is one's perception of how easy or difficult it is to perform the behavior, a construct similar to perceived self-efficacy. Therefore, a behavioral intention is theoretically represented as a weighted sum of these three predictors (Bandura et.al., 1997).

The Theory of Planned Behavior (TPB) has been effectively tested in a number of contexts to predict a variety of intentions and behaviors, including health, marketing and consumer researches (Eagly & Chaiken, 1993). Regarding health related behaviors, a meta-analytic study conducted by McEachan, Conner, Taylor, and Lawton (2011) evidenced that the efficacy of TPB is dependent on the behaviors that are to be explained or predicted as well as on different moderators of a methodological nature.

2.4.1. Attitude:

According to Allport (1935)' definition, attitude is "a neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related". Additionally Hawkins et al (2001) defined that an attitude is an enduring organization of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of our environment. It clearly means that attitudes arise from environmental stimuli. Moreover, Fishbein and Ajzen (1975)'s definition of attitude is that "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object". Krech et al (1962), stated that attitude is a person's favorable or unfavorable evaluations, toward some object or idea. According to Kotler (2004), people tend to have attitudes towards everything like politics, purchases, religion, food, music etc. Boone and Kurtz (2004)' description of attitude is that "a person's evaluations, whether favorable or unfavorable towards some object, data or person". Baron and Bryne (1987) defined the attitude as a lasting, general evaluation of people, object, advertisement, or issues. Thus, Petty et al (1997) stated that an attitude is the way we think, feel, and act toward some aspect of our environments such as a retail

store, television program, or product. There is a unique aspect of attitudes which associates it with consumer behaviour that consumer's attitude towards a particular product or object generalizes the entire group of those objects. Loudon and Della Bitta (1993) showed the importance of the role of attitudes during consumer's purchase decisions. Loken et.al. (2002) elaborated the role of determinants in the formation of attitudes toward a category. The study was intended to develop a better understanding of the relationship between category models and overall attitudes toward the category. The research concluded that there is a strong relationship between overall category attitudes and intention.

There are some studies that are conducted to examine attitude towards OTC products. Pineles et al. (2012) used the theory of planned behaviour to explore the influence of beliefs about medicines and individual pain experience as predictors of intent to self-medicate. It is concluded that if attitudes toward the necessity of medicine become more positive, intent to use medicines increases.

Pande (2015) attempted to highlight the role of consumer attitudes, beliefs and subjective norms in personal care product purchases. The research concluded that attitude is another factor for consumer purchases that plays a vital role in transforming individuals into profitable and loyal consumers. In the case of personal care purchases, the attitude towards product characteristics, its branding, marketing and its pricing affects the purchase.

Another study by Aneblom et al. (2002) assessed Swedish women's knowledge, experience, and attitudes about OTC usage of Emergency Contraception. The attitude of Swedish women towards OTC Access to EC was positive.

O'Connor (2010) carried a study named as 'Willingness to trial functional foods and vitamin supplements: the role of attitudes, subjective norms, and dread of risks.' The conclusion was that the attitude and subjective norms were significant determinants of non-users willingness to try each of the health products.

R.K. Srivastava (2007), carried a research on physicians' and consumers' attitudes towards Pharmaceutical OTC Products. The researcher had conducted a survey with

sample size of 677 and 125 doctors in major Nagpur, Mumbai and Chennai to find out about consumers' attitudes towards Pharmaceutical OTC Product. The study also revealed that consumer prefers OTC products as a substitute for Rx products but on the other hand doctors irrespective of their age and specialty do not like to prescribe OTC products.

Mayyada Wazaify & et al (2005) in their research on "Societal Perspective on OTC medicines family practice" designed a research to know the public opinion and prescriptions of OTC products and their misuse and abuse of such preparations. The research revealed that majority of consumers visited community pharmacists at least once in a month. The majority of participants declared that they follow the direction of the products. Beside, Awareness on the abuse of potential OTC products. Was found high in Ireland.

Colin Bradley and Co-workers (1998) studied "Patient's attitude to Over the Counter products & possible professional response to self-medications". The research critically examined the patients' attitude to their doctors recommending OTC products. It was revealed that patients are more ready for their doctors to make inquiries about their self-medication behavior and influencing their self-medication behaviour. Secondly the patients quietly accepted the pharmacists after doctors' prescription. It was found that the doctors recommending OTC products were well accepted by patients and patients were found to be receptive to the idea of OTC medication.

R. William and Soller (1996) researched on "Evolution of self-care with over the counter medications "the study focuses on self-care with home remedies that had evolved from ages. Prescription to OTC switch has become a modern era strategy. Self-care has made consumers more self-reliant towards healthcare thus reducing cost on healthcare. Companies expanding their OTC Product lines taking into consideration of self-medication attitude among patients. Proactive regulatory decisions make it easy to sale; promote OTC products like FMCG products.

Sanjeev Verma (2009) in his research study on "An empirical analysis of consumer's attitude towards OTC health supplements in India". The study revealed that the

consumer attitude towards OTC health care is changing with a great speed. Consumer buying OTC products as soaps and biscuits, the researcher found that an upsurge has been observed in India towards healthy and stress-free life. People are getting more inclined towards Over-The-Counter (OTC) purchase of health supplements. The segment is growing at the rate of 15%, which is twice the rate of growth for the entire pharmaceutical sector. Since OTC promotion allows for free play in marketing and brand building, as in the Fast Moving Consumer Goods (FMCG) sector, with three times more consumer reach. This paper also highlights some of the important reasons for the purchase of OTC health supplements in India and satisfying factors for consumers.

H1: Consumers' attitude towards OTC products is positively related to the intention to purchase OTC products.

2.4.2. Consumers' Health Consciousness

Health consciousness is mostly used a personal variable on health topics. There are some past studies that have indicated the prediction power of health consciousness on a variety of health attitudes and behaviors (Michaelidou& Hassan, 2008; Jayanti& Burns, 1998; Furnham& Forey, 1994). The general belief is that an individual's level of health consciousness has a correlation with the response to her/him to health information (Dutta& Feng, 2007; Iversen, & Kraft, 2006; Basu&Dutta, 2008). Therefore, taking into consideration health consciousness of the individuals is important to understand the factors affecting attitude on any health subject. In literature, there are five components of health consciousness that have indicated in studies for last twenty years. These factors can be summarized as an integration of health behavior, attention to one's health, health information seeking and usage, personal health responsibility, and health motivation.

Integration of health behavior was examined by some detailed studies. The first topic is a correlation between health orientation and orientation toward a wellness lifestyle.

The study has concluded that if an individual has a high level of health consciousness, he/she can be sensitive to health hazards, responsible for their health, their physical activities, and stress management and healthy eating behavior. Moreover, Bloch's (1984) pioneered with the study on healthy lifestyle as an health orientation toward the preventive action of possible health problems and increasing personal wellness.

Jayanti and Burns's (1998) defined health consciousness as the degree of health concerns that are integrated into a person's daily activities. Divine and Lepisto (2005) indicated that if an individual enjoys's with her/his healthy lifestyles who tends to exercise frequently and eat /drink healthy food/beverage.

According to Gould (1998), health consciousness can be considered as a psychological or emotional status of a person that include health alertness, health self-consciousness, health involvement, and self-monitoring. Gould (1998; 1990) indicated that health consciousness is a psychographic variable. This variable is not integrated with visible behaviors. Therefore, attitude and behavior regarding health care and prevention as dependent variables are correlated with health consciousness as an independent variable.

Iversen and Kraft (2006) defined health consciousness as "the tendency to focus attention on one's health". On the other hand, according to Iversen and Kraft (2006) health consciousness is different from health anxiety or fear of being sick or dead. Their results have shown that there is a positive relation between health consciousness and preventive health behavior (healthier diet and exercise).

There are some other studies are also demonstrated that health consciousness is related to people's attention to or involvement with health messages (Aldoory, 2001; Iversen&Kraft 2006). Specifically, according to Iversen and Kraft (2006) high health conscious individuals perceive health messages more personally relevant. Moreover they process the argument and recommendations in the messages more thoroughly. To Firnham and Forey (1994), health information seeking is an essential element of health consciousness.

On the other hand, in Dutta's studies (Dutta-Bergman, 2006; Dutta, 2007) health consciousness is considered as an important predictor of individuals' health information-related activities. These activities are such as health information seeking and learning, and the use of communication channels. Therefore, such actions are influenced by one's health consciousness, instead of health consciousness itself. Specifically, Dutta-Bergman (2005) indicated that health consciousness has a positive relation with searching the health behavior by herself/himself besides that provided by a doctor.

Moreover, self-responsibility dimension of health consciousness is another issue that is examined by many scholars. According to results, if an individual is health conscious, he/she takes responsibility in managing their own health. According to Kraft and Goodell (1993), personal health responsibility is one of the four components that constitute health consciousness. Because person who has more health consciousness, he/she take more responsibility to be healthier, more active to prevent health. And also he/she represent health-maintaining behaviors in their daily lives. Active participation to searching information from online and/or offline health communities (Basu & Dutta, 2008; Dutta-Bergman, 2004; Dutta & Feng, 2007).

Health motivation is another dimension that was revealed from previous studies. Health motivation defined as strong willingness to prevent health problems. According to Moorman and Matulich (1993) health motivation is the predictor of person's engagement in preventive health behaviors. Jayanti and Burns (1998) defined health motivation as a relatively stable psychological trait. Dutta-Bergman (2004) also regarded health motivation as a major part of health consciousness, and presented it in relation to the degree to which individuals value healthy conditions. Dutta's studies (2004, 2007, and 2008) used an item stating, "Living life in the best possible health is very important to me." Dutta-Bergman (2004) defined health consciousness as "an indicator of the consumer's intrinsic motivation to maintain good health" as well as "a reflection of his or her responsibility toward health". On the other hand, Jayanti and Burns (1998) emphasized that health consciousness is distinct from health motivation. According to Jayanti and Burns (1998), "health motivation refers to the internal

characteristic of a person, whereas health consciousness refers to the external characteristics of how a person's health is taken care of".

Thus, broadly, the level of health consciousness is correlated with actively integrated healthy behaviors in their daily routines, actions to prevent health problem attentively, actively searching health information from different sources, being self-responsible for their health, and having high motivation to being healthier.

Thus, health consciousness is an important parameter to understand factors on intention to any health related purchase.

H2: The higher the health consciousness of consumers, the more favorable the attitude towards OTC products.

2.4.3. Risk Averseness on OTC Products

The risk is one of the mostly examined factors in consumer's behavior studies (Mollahosseini, 2012; Bauer, 1960; Tan, 1999; Chiu et al, 2014). In Classical Decision Theory, the definition of risk is that "reflecting variation in the distribution of possible outcomes, their likelihoods, and their subjective values" (March and Shapira, 1987 p. 1404). Moreover, Peter and Ryan (1976, p. 185)' definition of risk "the expectation of losses associated with the purchase and, as such, acts as an inhibitor to purchase". The risk is examined in various consumer behavior topics.

According to Conchar (2004), risk evaluation depends on individuals' characteristics whereas in many studies risk is considered as an objective characteristic of a given situation. If one is more risk averse, the perception of risk is higher than others (March and Shapira, 1987). Risk averse individual pretends to be in the less risky situation. They can ignore some expected returns to be in possible undesirable conditions. On the other hand, risk seekers can tolerate to be in high risky condition (March and Shapira, 1987). According to Peter and Ryan (1976), risk perception is to be defined as a personality variable. Therefore, risk averseness is one of the most important

personal characteristics that affects consumers' behavior especially in ambiguous situations.

Purchase behavior of OTC products can be considered as a risky behavior from several aspects such as health related risks due to non- prescription status and financial related risks due to less control of health authorities on OTC products, and all OTC products have to be paid by people themselves.

Although an OTC products are available to sell without a physician guidance and prescription since these products have favorable safety profile. But usage of OTC products still carry some risks. Such risks may be mistake in self-diagnosis, wrong therapy choice, wrong dosage, occurrence of side effects, drug interactions, and so on. Improper use of OTC product is a major problem with OTC consumption. Calamusa et. al. (2012) studied the influencing factors of Italian Consumers when purchase OTCs. The study showed an incomplete awareness of several risk areas, with regard to drug interactions and misuse/abuse.

Lechuga-Besné et. al. (2009) examined the risk perception of the self-prescribed use of Over the Counter (OTC) cold/flu medications. The study resulted that risk perception has low relation with medication use, intention and behavior. Subjective norm and motivation have stronger relation with intention and behavior, whereas attitudes and beliefs are also in lower relationship.

Ismail et. al. (2015) studied on the relationship between product safety and buying intention for herbal products'. The perceived risk is taken as moderating effect. The study concluded that relationship between product safety and buying intention moderate perceived risk.

H3: The higher the risk averseness of consumers, the less favorable the attitude towards OTC products.

2.4.4. Level of Knowledge of OTC Products

Consumer knowledge is classified as objective knowledge and subjective knowledge. Consumer knowledge is a dynamic issue. The level of knowledge varies for different products categories in a different class of knowledge- objective and subjective knowledge over time.

Objective knowledge is sometimes referred to as 'real' knowledge, or knowledge of the 'truth' and is "current, accurate information stored by individuals in their long-term memory" (Veale & Quester, 2007a, p. 2109)

If the consumers have high level of objective knowledge, they can distinguish between important product and service attributes easier and more precise way. They can disregard the less critical product characteristics when the assessment of quality or buying decision will be done. They can search out effectively and accurately and filter the information. (Wirtz & Mattila, 2003).

On the other hand, consumers who have subjective knowledge may not have ability recall of brands, models and specific product attributes (Mitchell & Dacin, 1996) Moreover, this kind of consumers tend to rely on their personal experiences They are not open to external search for new information. The perception of these consumers is as they already 'know enough'.

The topic of consumer knowledge is one of the mostly studied research topics. The results of these studies are conflicting and ambiguous. There is a difficulty to measure the consumer 'knowledge'. Some researchers measure only familiarity or self-assessed knowledge and some measured the objective knowledge (Alba & Hutchinson, 2000).

The importance of knowledge on decision-making process, and the measurement of this variable will continue to be a subject in marketing literature.

Consumers can easily and conveniently purchase OTC products from pharmacies without any advice from health professionals. It is obvious that level of knowledge of consumer is a determinant to intend to buy any specific OTC products.

There are some valuable surveys on consumer's level of knowledge. For example, Nielsen and IMS (2013) has shown overall knowledge and trust on OTC products. According to this survey, more than two-thirds of consumers prefer to use OTC medicines instead of a prescription when the OTC is available.

According to the survey, the majority of the consumers have enough knowledge when selecting the appropriate OTC drug to for their health conditions. More than 60 percent of consumers understand about the ingredients in different OTC medicines. Moreover, nearly 90 percent of consumers decide to buy an OTC medicine according to the symptoms it treats. The survey was carried by Nielsen and IMS in 2013 gave insight on perceived knowledge of consumers. The results of the survey indicated that 25 percent of participants identified themselves as being someone "others often ask for advice on what OTC medicines they should take." These individuals may have high level of perceived knowledge and they may take an active role in educating others. These people can be called as "Family Health Influencers" (Nielsen and IMS, 2013)

There are some researches on OTC products that assessment of knowledge of OTC products.

Alexander, GC et al. (2005) have shown that Indian consumers use OTC products very often for a wide range of common health conditions such as a cough, cold, fever, pain, sprains, heartburn and diarrhea. According to the survey, 45% of participants feel confident and knowledgeable and tend to go pharmacists directly. 24% of them prefer to go doctor and 9% of them tend to do nothing.

Kontogiorgis et. al. (2016) examined the relationship of level of consumer knowledge with attitudes towards OTC analgesic in Greece. In this study, measurement of objective knowledge about Paracetamol was done by asking question about ingredients, original or generic status of drugs by giving names of drugs.

Ghosh et.al. (2015) assessed the extent of knowledge and practices of over the counter (OTC) drugs among second class medical students. This cross-sectional study has found that use of OTC drugs is very common among medical students, facilitated by the easy availability of drugs, and information from textbooks/seniors. A significant

number of students are unaware of the adverse effects of the medication that they themselves take and suggest to others.

Sharma et. al. (2017) studied 'the knowledge and practice on over-the-counter drugs among adults of age group 20 and above'. The study concluded that the knowledge hadn't been fully practiced into action by the community people and still they are lacking the concept of over-the-counter drugs and its safe use in daily living.

Ahmad et. al. (2015) evaluated the knowledge, attitude and practice about Self-medication. Subjects have self-rated their knowledge about self-medication.

Brabers et.al. (2013) studied the level of knowledge on OTC with the study. The variable to assess the level of knowledge with self-rate of confidence on OTC products. Due to self-rating, subjective knowledge was measured in this study.

Thus, the level of knowledge is hypothesized as follows:

H4: The higher the level of knowledge of consumers on OTC products, the more favorable the attitude towards OTC products.

H7: The higher the level of knowledge of consumers on OTC products, the more favorable the behavioral control on OTC products.

2.4.5. Price Consciousness

The price as a variable is one of the most crucial factors that may determine the customer decision. Generally, customers search for the over prices to maximize their fulfillment for their limited budget (Monroe, 1981).

There are a large number of studies that define price as a crucial factor in consumer behavior (Huang et al., 2004). Customers may have a different level of price experiences and these experience may be lower and higher price bounds (Janiszewski& Lichtenstein, 1999). In general, customers decide to purchase according to the reference price in their assessment (Huang et al., 2004).

Price consciousness is one of the most important factors which is directly related to reference pricing (Alford & Biswas, 2002). Lichtenstein et al. (1993, p. 235) defined price consciousness as “the degree to which the consumer focuses exclusively on paying a low price”. Moreover, Monroe and Petroshius (1981, p. 44) defined price consciousness as “the degree he/she is unwilling to pay a higher price for a product, and if the price is greater than what is acceptable to pay, the buyer may refrain from buying”. Price consciousness may be subjective and depends on consumer’s status and perceptions. (Lichtenstein et al. 1988). If consumers are highly price conscious, they are looking for the cheaper price and unwilling to pay more for extra features when the price difference is too much (Monroe and Petroshius, 1981).

In addition to the contexts mentioned above, price consciousness can also be considered as one of the most important antecedents of attitude towards OTC products. Because OTC products have to be paid out of the pocket. Kujala et. al. (1993) examined the relationship between the price knowledge and search behavior and low involvement food purchases’. According to the study, consumers do not tend generally to search different shops to find a lower price. Besides, when consumers are motivated, they learn where to find lower prices.

Some researches have shown a different level of price sensitivity towards OTC products. Hong et al. (2005) find that 50 per cent of consumers is willing to pay a price premium to receive pharmacist advice about OTC products.

Gönül (1999) shows that patients exhibit some price expectations for OTC products, but prior purchases of a brand, rather than price concerns, govern actual OTC product purchases. The low price sensitivity of the demand for OTC products receives confirmation from Akçura et al. (2004). In particular, when other quality cues are missing, price acts as an important indicator of quality, and patients tend to choose more expensive products. In contrast, elderly people and larger households may face more severe budget constraints and are therefore more price-conscious. (Moschis&Friend, 2008).

In Turkey, all the OTC products have to be paid out of the pocket. And there are many OTC products which have more than one option with the same indication. In this context, it is hypothesized as follows;

H5: The higher the price consciousness of consumers, the less favorable the attitude towards OTC products.

2.4.6. Perceived Behavioral Control

There is a main difference between TRA and TPB that comes from control variable of TPB (Conner & Sparks, 2005). According to TRA, the most of human social behaviors are under volitional control. So, it can be predicted from only intentions. But, perceived behavioral control variable was included to TPB to predict non-volitional behaviors (Ajzen, 1991). Definition of perceived behavioral control was ‘perception of the ease or difficulty to perform the behaviour of interest’ Conner and Sparks (2005) indicated a model for perceived behavioral control by including a combination of the probability of occurrence of a control factor and the perceived power of that control factor. There is a relationship between perceived behavioral control and behavior. If people have the ability to control over the behavior they can engage in the behavior. But if individuals have no control they tend to prevent performing the behavior.

In the previous studies, both TRA and TPB are mostly used to examine the different behaviors (Armitage & Conner, 2001) to determine the factor when purchase nutrition. Moreover, use of the dietary supplement is examined a model that based on TBP. (Conner et al, 2001)

There are many studies that support the strong positive relationship of attitudes and perceived behavioral control with intentions.

Moreover, some studies showed that intentions and perceived behavioral control have a positive relationship with behaviors.

There are some studies that examined perceived behavioral control on a health topic. Bohon et. al. (2016) used TBP as prediction model to show potential intention to seek mental health services for depression among college students. The results indicated that the main predictor of intention to seek mental health services was attitudes. The strength of perceived behavioral control was lower than attitude, but still significantly related.

H6: The higher the perceived behavioral control, the higher the intention to buy OTC products.

2.4.7. Involvement in purchase decision

Peter and Olson (1999) also suggests that consumers' knowledge and involvement have an effect on consumers' problem-solving process, which includes external search. According to Celsi and Olson (1988), the involvement construct should be considered as a motivational state. They acknowledge the traditional definition of involvement as "perceived personal relevance" (Richins and Bloch, 1986; Zaichkowsky, 1985; Petty and Cacioppo, 1981). According to perceived personal relevance perspective, the "felt involvement" concept means a consumer's overall subjective feeling of personal relevance. This concept constitutes an important dimension of involvement. The purchase involvement construct refers to the degree of care or concern felt toward the purchase decision or choice (Hawkins, Best, and Coney 1986). The involvement is an important factor when the customer search pre-purchase consumer information. (Tybjee 1979; Mitchell 1979). According to Zaichkowsky (1986), involvement with the purchase decision may lead a behavior change during decision-making process. Zaichkowsky (1986) also suggested that if a customer has a high level of involvement with the purchase decision, it affects the amount of information search.

There is another definition of purchase involvement as the degree of care or concern toward the purchase decision or choice (Hawkins, Best, and Coney, 1986). The level of involvement is a determinant influencing external search.

Beatty and Smith (1987) found that purchase involvement has a positive correlation with total information searching for different product categories. Dholakia (2001) conducted a survey to examine the relationship between situation involvement and information search. It was hypothesized that the consumer's willingness to look for product-related information when decide to purchase has a positive relationship with his/her situational involvement for the product class.

The influence of purchase involvement on external search is also found in health care contexts. Lueg, Moore, and Warkentin (2003) investigated patients' health information search. In addition, Sansgiry and Cady's research study (1996) focused on the context of over-the-counter drug purchase to analyze the relationship between purchase involvement and OTC drug purchase behaviors. They found that the level of purchase involvement has a significant and positive relationship with the frequency of ask for the guidance of pharmacists.

Gore, Medhavan, McClung, and Riley (1994) also reported that if the consumers' purchase involvement is high when purchase OTC product, they seek more advice from experts such as physicians, pharmacists, and nurses.

H8: The higher involvement in purchase decision, the higher the perceived behavioral control on OTC products

2.4.8. Subjective Norm

Subjective norm is one of the key variables of TRA and TPB. Subjective Norm is defined as "a person's perception that most people who are important to him think he should or should not perform the behavior in question" (Ajzen and Fishbein, 1980, p.57). Armitage and Conner's (2001)'s meta-analysis indicated that there is a weaker correlation between subjective norm and intention than attitude. Subjective norm has a lower relationship with intention when it compared with the relationship of perceived behavioral control.

Lechuga-Besné et. al. (2009) examined the use of Over the Counter (OTC) cold/flu medications. The study resulted that subjective norm is a better predictive level.

Mintel et al. (2004) reported that opinions of friends, family and health professionals could be influential for some people when decide to purchase OTC products.

Thus, a hypothesis on subjective norm is proposed as below:

H9: The higher the subjective norms, the higher the intention to buy OTC products.

2.4.9. Intention of Purchase for OTC Products

Behavioral intention (BI) is defined as a person's perceived likelihood or "subjective probability that he or she will engage in a given behavior" (Committee on Communication for Behavior Change in the 21st Century, 2002, p. 31). Purchase intention is one of the determinants of consumer cognitive behaviour on the intention of individual who intends to buy a specific brand or product. According to Piron (1991), the impulse of purchase is an unplanned action that results from a specific stimulus. Rook (1987) indicated that there may be impulse purchase when there is sudden urge to purchase something immediately.

There are some studies used TBP to examine intention variable. Bohon et. al. (2007) studied the prediction of potential intention to seek mental health services for depression among college students. The findings represented that if there is a positive attitude toward seeking mental health services, the intention to seek mental health service is high. Besides, perceived behavioral control has a significant correlation with the intention to seek mental health services. On the other hand, subjective norms have not a significant relationship with intention.

Schomerus et al (2009) and Mo&Mak (2009) have also studied TPB to understand association of behavioral control, attitude and subjective norms to seek mental services. Both studies resulted in that intention has a positive correlation with all three TPB factors when a person seeks mental health services.

Pande et. al. (2015) studied determinants of purchase behavior on personal care purchases. The study resulted that there is a correlation between personal care purchases, the attitude towards product characteristics, its branding, marketing and its pricing affects the purchase intention.

Pineles et. al. (2012) examined variables of theory of planned behavior to determine the factors of purchase of self-medication with over-the-counter analgesics

Lodorfos et. al. (2006) studied the predictors of consumers' attitudes and intentions to show brand loyal behaviour. The findings have indicated that overall attitude towards purchasing an OTC brand is determined by trustworthy beliefs, price sensitivity and experience. There is a positive correlation between individual's intentions with repeat purchase.

As a summary, the research model based on Theory of Planned Behaviour (TPB). The TPB therefore hypothesizes three independent determinants of behavioral intention: attitude toward the behavior, subjective norm and perceived behavioral control. Moreover, according to TBP, attitudes are dependent upon the information that the person has regarding the behavior. These are called the behavioral beliefs. A second essential component to the measurement of attitude is the individual's evaluation that these behavioral beliefs will lead to a given outcome. The SN is comprised of two components: the normative beliefs and the motivation to comply. Perceived behavioral control is determined by control beliefs and the perceived power of the respective control beliefs.

In this study, the variables are selected from the literature that is as described above and also from some valuable insights from qualitative part of this study. These variables are divided two group. The first part is the personal factors that include; 'health consciousness, risk averseness', the second part is the rational factors that are 'level of knowledge, price consciousness and involvement in purchase decision'. The variables- health consciousness, risk averseness, the level of knowledge and price consciousness- are considered in predictors of attitude. These variables are a kind of behavioral beliefs and evaluations of behavioral outcomes. Besides, the variables-

level of knowledge and involvement in purchase decision' are a predictor of perceived behavioral control. The level of knowledge is considered as perceived power. Additionally, involvement in the purchase decision is derivative of control beliefs element of the TPB model. Any predictor of the subjective norm- as normative beliefs and motivation to comply- is taken into account in this study.

2.5. Research Hypothesis

This research study intends to develop a theoretical model which would explain the purchase intention about OTC products in this respect. The following hypotheses have been elicited from the conceptual framework:

H1: Consumers' attitude towards OTC products is positively related to the intention to purchase OTC products.

H2: The higher the health consciousness of consumers, the more favorable the attitude towards OTC products.

H3: The higher the risk averseness of consumers, the less favorable the attitude towards OTC products.

H4: The higher the level of knowledge of consumers on OTC products, the more favorable the attitude towards OTC products.

H5: The higher the price consciousness of consumers, the less favorable the attitude towards OTC products.

H6: The higher the perceived behavioral control, the higher the intention to buy OTC products.

H7: The higher the level of knowledge of consumers on OTC products, the more favorable the behavioral control on OTC products.

H8: The higher involvement in purchase decision, the higher the perceived behavioral control on OTC products

H9: The higher the subjective norms, the higher the intention to buy OTC products

A comprehensive convenient sampling survey has been conducted in order to quantify and explicate the impact of various determinants influencing consumers' purchase intention relating to OTC products in Turkey. Findings of the study can be used by various stakeholders in Turkey for the marketing and promotion of OTC products.

Current research is designed to provide a better understanding of Turkish consumers' purchase intention towards OTC products. Investigating Turkish consumers' attitudes towards locally grown and imported OTC products is essential for Turkish and international players who are interested in entering the Turkish market. Given the background and research questions delineated in the previous sections, this study provides valuable insights into the global consumer behaviour related to OTC products. It is also planned to provide a better understanding of Turkish consumers' attitudes towards the purchase of OTC products and building a new body of knowledge necessary to market such products in Turkey. The findings would be useful to public policy makers interested in identifying strategies aimed at increasing the demand for OTC products. They also have important implications for marketers of OTC products in Turkey

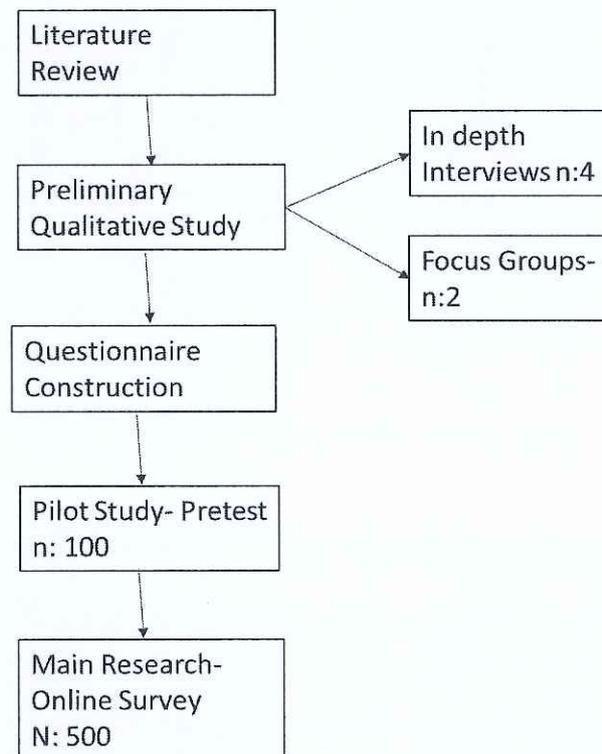
3. RESEARCH METHODOLOGY

In this part, the research methods of the study were summarized and explained. The details of the preliminary qualitative study and quantitative study were discussed. The steps of questionnaire construction and setting up the measures, questionnaire pre-test, sample selection and sampling method, data collection procedure for the main survey, and response rates were given in this chapter.

3.1. Stages of the Research

As shown in Figure 3, the current study began with reviewing theoretical approaches and past empirical studies addressing consumers' external information search behaviors. Based on the literature review, an interview protocol was created to be used in a preliminary qualitative study; depth interviews. Based on the literature review and depth interviews, a questionnaire was created for the main survey. Then, the questionnaire was pretested and revised before the start of the main survey. This chapter details each stage after the literature review.

Figure 3. Stages of the Research



3.2. Qualitative Method & Research:

In this study, three in-depth interviews and two focus groups are done by using the qualitative research techniques.

Since, there is a limited number of study in the literature regarding consumer behavior for OTC products in Turkey, a qualitative research was expected to get valuable information and insights about OTC market structure, dynamics, legal issues and also consumer behavior in Turkey.

3.2.1. Preliminary Qualitative Study: In-depth Interviews

The aim was to collect comprehensive data from different perspectives to understand OTC market structure, dynamics, legal issues and also consumer behavior in Turkey. A convenience sample of 4 participants was selected carefully based on the need of the study to understand the attitudes towards OTC products and market dynamics. Thus, 2 Pharma (OTC) Executive, 1 Pharmacist, 1 Physician were selected to be interviewed. First, Pharma executive has over 10 years of experience in pharmaceutical marketing. During the last 6 years, he is working at one of the biggest pharmaceutical company's OTC branch. He is director of OTC group. Second pharma executive is a general manager in one of the Turkish OTC company. She has 18 years of experience in pharmaceutical marketing and general management. The third interview was done with one of the well-known pharmacists in Istanbul. She owns a private pharmacy over 20 years. She has special interest on OTC products and her pharmacy has a large and well-decorated private area for OTC products. The last interviewee is a pediatrician who has over 20 years of experience. She is working for a well-known private office.

These profiles were chosen carefully to gather in depth information about ascendants of OTC consumer behavior to analyze in quantitative research. Two OTC-pharma marketers/top managers were chosen to understand more about correct description of

OTC market and products, to learn latest regulatory environment for OTC market, to have more insight about OTC market dynamics- (new products, prices and innovations), to gather information on customer-feedbacks and testimonial about their OTC products, to have their future prospects about OTC market and also their unmet needs in terms of consumer behavior. One pharmacist was chosen to understand customer behavior from the perspective of pharmacists as a first and closest health provider contact for many people. And also to have clear knowledge about latest regulations and other market dynamics. Pharmacists have close contact with consumer and they have strong experience and insight on consumer behavior. Moreover, as an important corner of health provider, a physician was included to the study. The main aim was to understand patient behavior when a physician prescribes an OTC product, to understand physician's perspective about self-care behavior of patients. Therefore, in this study, the technique of in-depth interviews was semi-standardized interview. This technique is seen as an effective method to provide much more comprehensive information other data collection methods (Boyce&Neale, 2006).

In each interview session, a consent form was given to the respondent before the start of the session. Then, following the protocol, respondents were asked about the general pharmaceutical market, OTC products and OTC market dynamics. Each interview took approximately 30-45 minutes. All of the interviews were recorded using a tape recorder, transcribed, and analyzed. Important findings from these interview sessions were used when survey tool developed.

3.2.2. Preliminary Qualitative Study: Focus Group Study

Consumers' behavior of OTC products are not widely studied topic. There are only limited number of studies Therefore, in order to build up a strong questionnaire, the information is gathered from qualitative research, is used as a comprehensive information about the perspectives of the consumers about the OTC products. The recommendation about a number of focus groups vary in previous studies. However,

a common recommendation is conducting at least two sessions for the validity of results. Another recommendation is that each session should be conducted with different participants. (Finch&Lewis, 2003) Thus, two focus groups of this study were conducted with different participants.

3.2.3. Structure of the Focus Group

In this step, two focus groups were done. Focus Group participants were carefully selected. Focus Group 1 was with 8 participants and Focus Group 2 was done with 11 participants.

3.2.4. Details of Focus Group Studies

1st Group: Conducted December 12, 2016. Senkron Coaching Office, Istanbul. All of the participants declared that they buy at least one OTC product so far. All the participants were graduated from Undergraduate or upper. There were four females and 4 males with age range 29-50. Demographical data of the participants is shown in Table 2.

Table 2: Demographic Characteristics of the First Focus Group Participants

Name	Gender	Age	Education	Occupation
Participant-1	Male	41	Undergraduate	stationer
Participant-2	Female	45	Graduate	Economist
Participant-3	Female	50	Undergraduate	Business Coach
Participant-4	Male	39	Undergraduate	Dentist
Participant-5	Female	42	Undergraduate	Tourism Agency

Name	Gender	Age	Education	Occupation
Participant-6	Male	31	Undergraduate	Architect
Participant-7	Female	29	Undergraduate	Painter
Participant-8	Male	30	Undergraduate	Insurer

2nd Group: Conducted December 15, 2016. Mercuri Hotel in Altunizade Istanbul. There were 11 participants. Only 2 of them were female, whereas 9 of them were male. All the participants were graduated from high school or upper. The range of age 26-48. Demographical data of the participants is shown in Table 3.

Table 3: Demographic Characteristics of the Second Focus Group Participants

Name	Gender	Age	Education	Occupation
Participant-9	Male	37	Undergraduate	Car Repair Service
Participant-10	Male	42	High School	Factory Owner
Participant-11	Female	28	Undergraduate	Personal Trainer
Participant-12	Male	44	Undergraduate	Insurer
Participant-13	Male	45	Undergraduate	Printing Service
Participant-14	Male	48	Undergraduate	Insurer
Participant-15	Male	40	Undergraduate	Computer Service
Participant-16	Female	43	Undergraduate	Dentists
Participant-17	Male	26	Undergraduate	Lawyer
Participant-18	Male	36	Undergraduate	Import Office Manager
Participant-19	Male	40	Undergraduate	Real Estate Agent

3.2.5. Facilitation of Focus Groups

Both Focus groups were conducted by the same person who is a business coach. She has plenty of moderation experience in different topics. Moderator has used semi-structured questions. Each of the questions was aimed to get detailed information about opinions and tendencies of OTC customer when decide to buy OTC products.

At the beginning of the sessions, the moderator gave an information about how the sessions will be done. What will be the steps and what are the rules of focus group discussions. Participants took their places. Moderator reminded them once more that the sessions would be recorded by tape. After each participant introduces themselves, the moderator started the session by asking questions about OTC products.

3.2.6. Results of Focus Group

When focus group session was started, the moderator asked the question as ‘What kind of products would this definition encompass? What products would not be encompassed in this definition?’

- a- Please list 5-10 OTC products on top of your mind.
- b- Please list 5-10 prescribed drugs on top of your mind

Thus, some of OTC definitions that came from the participants were as follows;

‘Drugs that can be bought from pharmacy without prescription’

“Drug like supplements.”

‘Any drug or supplement that people can buy themselves for self-medication’

“Dietary supplements, herbal products, vitamins”

“not drug, less likely to experience adverse events”

“health products that are easy to access”

Then moderator has broadened the topic by asking ‘What are the main differences between prescribed drugs and OTC products in terms of purchasing?’

After listing the answers of participants, the moderator gave them detailed information about OTC products with actual names and brands. She gave the definition of OTCs as follow,

‘FDA definition: OTC drugs are drugs that have been found to be safe and appropriate for use without the supervision of a health care professional such as a physician, and they can be purchased by consumers without a prescription. These drugs are sometimes approved under applications like new prescription drugs, but more often they are legally marketed without an application by following a regulation called an OTC drug monograph.’

Then focus group session continued with the question as “How frequent do you purchase OTC products?” Please select the kind of product from the list and mark how frequent are you purchasing these products in the last 6 months?

All of the respondents had bought at least one OTC product. Mean number of frequency was 3-4 times. Interestingly, two of the three participants bought vitamins and minerals.

Moderator continued with a question ‘Tell me about positive experiences you've had with OTC products?’ Some of the participants declared their positive experience as follows:

- Probiotic use and better gastrointestinal results and better results for chorionic illness (ITP),
- Seasonal D vitamin usage and better health outcome in winter time
- Vitamin supplement during very busy days and feeling more energetic
- A kind of herbal supplement that increase the concentration of children when they are studying for big exams
- Ocean water to clean baby’s nose.
- OTC products can be accessed without doctor prescription, thus it is fast, cheap (no doctor visit cost), and less risky for minor illnesses.

Next question was 'Tell me about disappointments you've had with OTC products?'

Almost all of them have a negative experience either her/his own experience or she/he had heard from someone else. These feedbacks can be listed as follows:

- Bad taste of the products (fish oil and dietary supplement)
- No efficacy
- Itching and minor dermatological side effects
- Wrong dosage advise from pharmacist
- Nausia&Vomitting
- Overdose use of vitamins
- Allergic reactions (eye conjunctivitis, allergy to gelatin in fish oil)
- Triggering lactose intolerance with probiotic use

Moderator has broadened the topic by asking these two questions 'What are your influencing factors when you decide to purchase a particular type of OTC Products?' and 'After you decide to purchase any of OTC products, what is your main motivation?' The moderator guide them to write down first three important things to them when you purchase OTC products?' Both groups have very similar answers. It can be listed as follows:

- Brand and manufacturer (prefer well-known brands of trustable companies) - original product rather than a substitute.
- Self-Empowerment: My own knowledge and information search (internet search, prospectus, asking pharmacists and doctors)
- Past experiences (own or any friends)
- Doctor advice
- Pharmacists advice
- Friends and any experienced one's advice
- Price
- Urgency of situation to purchase product
- Taste of product
- Ease of use
- Product appearance

- Shelf life

Then the moderator listed the answers to these two questions and then asked the groups to 'Pick the most important factor for you. You can pick something that you mentioned or something that was said by others.'

It was very important that almost 80 percent of participants declared in both focus groups '-Self-Empowerment: My own knowledge and information search' as the main factor in their decision when purchasing OTC products.

At this point, moderator started to ask some questions to tease the selected variable for this study.

Each of the participants prepared their own influential factor list on their paper sheets. Moderator asked 'If you have more knowledge about the OTC products that you purchase do you think that this hierarchy will change at all? How?'

Almost 90 percent of participants believe that 'if they have more information, they may be more confident to buy or not buy the products'

For example, one of the participants said 'if I know enough about any kind of OTC product, I feel free to buy or not buy that one. Thus I do not need anything else than enough money to buy.'

One other question was 'If you have previous experience about the OTC products that you purchase do you think that this hierarchy will change at all? How?'

Most of the participants claimed the importance of past experience. Some of them emphasized that past experience is most important factor to decide to buy anything, and also any OTC products.

Next question was to understand the impact of the price variable. Moderator asked the group 'What do you think about pricing influence on purchasing behavior?'

Interestingly only less than 50 percent of participants declared price as a strong influential factor. Most of them claimed that there are more important factors that should be considered such as the name of the manufacturer, brand, ease of use and

country of origin. On the other hand, over 80 percent of them said they are comparing prices of equivalent products in pharmacy.

There was a question about demographic variables such as ‘What do you think about the influence of gender on purchasing behavior?’ Both groups have agreed that women are more frequent buyers than man.

Moderator started to ask a question about risk perspective, as ‘Do you think to use OTC products is risky or not? Why?’ Answers are not so homogenous. Some of the participants believe that any of the drugs, even OTC products, have some risks. Some participants claimed that OTC products may have higher risk than prescribed drugs. Because prescribed drugs have more strict measures and regulations when they are compared with OTC products in either production phase or marketing phase. On the other hand, the majority of participants claimed that OTC products are not perceived as a ‘drug’. Due to the less risky profile of these products, they can be easily accessible for minor or lifestyle conditions’. One participant said that OTC products are in between food and drug. They may be more close to food. Thus, these can be considered as risky as some kind of foods.

Moderator has broadened the topic with a question as ‘Have you ever changed any of your purchasing decisions on OTC products due to any recommendation from other? Who was he/she? Pharmacist? Doctor? Friend? A family member, any customer etc.? What brought the change? Almost all of them said ‘yes’. Main two factors were picked as ‘pharmacist and friend’. Most of the participants claimed that when they are buying OTC products, pharmacists are more influential than doctors.

Moderator started to ask more questions about personal characteristics. The question was ‘what kind of personal characteristics do people tend to purchase more OTC products than average?’

Answers were quite diverse. They can be listed as follows:

- Health conscious
- Self-confident
- Self-conscious

- Knowledgeable
- Less risk averse
- Open-minded
- Easy going
- Curious
- Less reluctant to spend money
- Anxiousness

Thus most of the variables that were selected for this study were also mentioned by participants as major characteristics.

When study was approaching to the end, moderator asked a control question to the participants to summarize their own major personal characteristics that drives usage of OTC products. Most of the participants agreed on the some of the personal characteristics that were already mentioned above:

- Health conscious
- Self-confident
- Self-conscious
- Knowledgeable
- Less reluctant to spend money
- Anxiousness
- Less risk averse

Last two questions were such as ‘How do you think that the future looks for OTC products in terms of consumption? And is there anything that we should have mentioned about but didn’t? Would you like to add anything?’ Almost all of the participants declared OTC market will grow, and more products will have OTC status in coming years. Some said that OTC regulations have to be prepared to minimize any negative consequences due to OTC products. Almost all of the participant believe that pharmacies should be the main or only the locations of sale. Even tough OTC products are safer or less risky than prescribed drugs, the professional guidance may be needed when customer choice an OTC product. And pharmacists are still perceived as one of

the main advice sources when purchasing an OTC product. One of the participants declared that due to health issues, even OTC products should not be on the shelves of the gross market stores, it needs a kind of professional service by health professionals-pharmacists.

The data of two sessions were analyzed with thematic analysis, several factors were revealed that may affect consumers' attitude towards OTC products. Some of these factors were directly used in model development. Health consciousness, the importance of knowledge, risk averseness, price consciousness, and involvement were the factors that were clearly mentioned during focus groups.

The qualitative part of the study provides valuable insights to the researcher to decide on which variables should be in or should not be. For example, the result of focus group studies showed us 'involvement in purchase decision' is one of the critical variables in OTC consumer behavior. Besides, the knowledge is another key variable for OTC consumer. And the 'level of knowledge' could be an important determinant of attitude and also perceived behavioral control. Almost all of the participants of focus groups agreed about the importance of health consciousness in the decision making of consumers. All the other variables- price consciousness and risk averseness- are considered as important predictors of attitude towards OTC.

Thus, the results of qualitative part provided strong evidence to the researcher to develop the survey instrument.

3.3. Method & Material of Quantitative Research

In scientific studies, research method is crucially important factor to have the validity and reliability of the results. Each step of this study has been carefully planned and conducted.

The sampling is the one of the most important parts in such kind of studies. The sample of study should represent targeted population of the study.

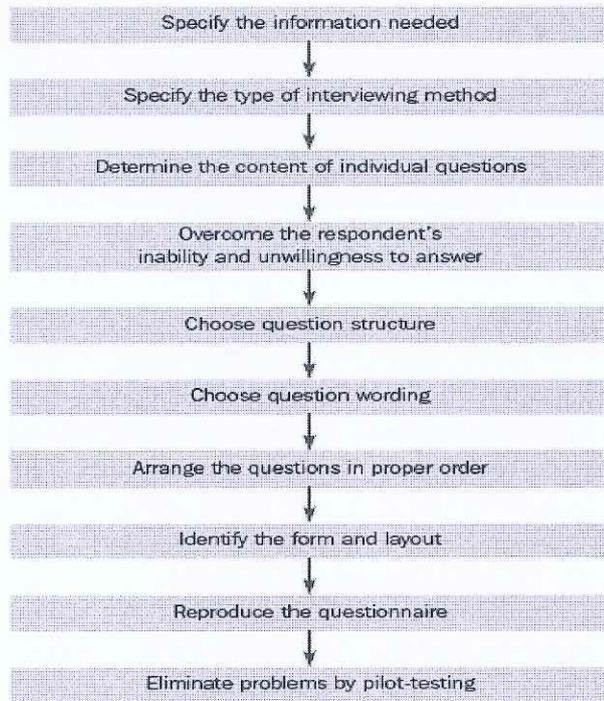
Due to the difficulty of reaching to targeted population and also time and budget limitations, convenience sampling was used for this research.

In order to guarantee the reliability and validity of results, sample size should be within suggested limits. However, it is not very easy to decide the sample due to lack of generally accepted sample size formula. Moreover the required sample size depends on the technique of data analysis that is used for this study.

In this study, structural equation modeling, will be the main technique to test the hypotheses. There is an important recommendation that was done by Hair et al. (2010) about how the sample size can be calculated. According to this recommendation, if there are more than seven constructs in the model, the required sample size is determined at least 500. Because the model of this study consists of ten constructs and one group, the sample size was determined as total 500 participants.

After the decision of sampling and the sample size, the next crucial step of quantitative study is to design the questionnaire. In this study, the questionnaire is designed according to recommendations of Malhotra and Birks 2008

Figure 4. Design Process of Questionnaire (Malhotra and Birks 2008)



The objective of this study is to indicate the effects of personal and rational factors on attitude towards OTC products and intention to buy OTC products. These selected personal and rational factors can be listed as Health Consciousness, Risk Averseness, Level of Knowledge and Price Consciousness on OTC Besides, the influence of Involvement in the Purchase Decision is another factor under analysis.

The type of interviewing method should be taken carefully into consideration while designing the questionnaire. In this study, online survey method was used. In online survey method, the survey instrument was sent directly to the participants via Google form application. The participants filled the survey instruments online by themselves without any additional intervention from researchers. (Bourque & Fielder, 2003). Because of easy of distribution and reach to a large number of participants in a short time, online survey and e-mail survey become preferable.

Furthermore, in this study, it is aimed to reach any Turkish people over age 18, so, it was not so difficult to reach them via online survey. Google forms have been used to develop the research questionnaire. Due to the ease of usage of Google forms, people

who get emails or link from whats-up answered the questions in almost 6-10 minutes. Respondents have to enter email address at the beginning of the survey in order to prevent double entry from a single email.

In this study, the questionnaire has four main parts. The first part was given the introductory paragraph and detailed information about the OTC products. There were detailed information about the objective of the study and confidentiality claims. Over The Counter was defined as a concept and examples about the OTC products were also provided in the first section.

In the second part, there are questions about the Health orientation. In this study, two indicators of health orientation were examined; health consciousness and self-empowerment. Health Consciousness of the participants was measured by 5 questions which were adapted from Dutta-Bergman (2004).

The third part is about the general attitude of people towards risk and price. Respondents have been informed that they should think about the general attitude of themselves on risk averseness and price consciousness when they purchase any kind of good. Risk averseness was measured by 4 questions that were adapted from Burton et al., (1998). Price consciousness was measured with also 4 questions that were adapted from one of the well-known study (Lichtenstein, 1993)

Fourth part includes measures that are specifically about OTC products. In the first part of the questionnaire, respondents were informed as 'please answer the following questions by considering especially OTC product'. There was description of OTC products and list of examples of OTC products were given again in this part. Larger number of variables were measured in this section. These are Level of Knowledge, Attitude Towards OTC Products, Subjective Norms, Behavioral Control and Purchase Intentions. The level of Knowledge variable was measured with 5 items that were taken from Brabers et. al. (2013). Involvement in purchase decision scale is taken from Mittal et. al. (1988). Attitude Towards OTC (Zhou, 2013), Subjective Norms (Kim, 2011), Behavioral Control (Ajzen, 2002) and Purchase Intentions (Fishbein&Ajzen,

2010) were measured with 4 questions for each variable. The sources of the measures were given in Table 4.

Table 4. Measures of the Variables

Name of Variable	Number of Items	Author	Year	Journal
Attitude towards OTC Products	4	Zhou et. al.	2013	Journal of Consumer Marketing
Intention to Purchase OTC Products	4	Fishbein and Ajzen	2010	Psychology Press
Risk Averseness	4	Burton et al.	1998	Academy of Marketing Science
Price Consciousness	4	Lichtenstein et al.	1993	Journal of Marketing Research
Level of Knowledge	5	Brabers et. al	2013	British Medical Journal
Subjective Norms	4	Kim& Chung et al.	2011	Journal of Consumer Marketing
Behavioral Control	4	Ajzen et al.	2002	Journal of Applied Social Psychology
Health Consciousness	5	Wang et al.	2005	Journal of Consumer Marketing
Involvement in Purchase Decision	4	Mittal&Lee et al.	1988	Advance in Consumer Research

As it seen from the list of measures of variables, each measure of variables was taken reliable journals in order to increase the quality of questionnaire. Thus, all the measures for the variables were undergone to validity and reliability analysis by main researchers of them.

In the fourth section of the questionnaire, the demographic questions as the following, age, gender, marital status, education level, income level, and occupation were asked to respondents.

This study has targeted to reach Turkish consumers who are over 18 years old. Moreover, in some studies have shown that there may be the unwillingness of the consumers to answer the demographic questions, in order to cope with this difficulty, demographic questions were asked at the end of the questionnaire. Especially, the income question may be sensitive for most of the respondents. Therefore, questionnaire gave a range for income to mark for respondents, (Malhotra& Birks 2008). Moreover, there was an option as 'don't want to answer' for income question if the respondent does not want to answer.

In this study, most of the questions were structured. For all variables other than Involvement in purchase decision variable, five-point Likert scale was chosen. The reason for selecting the Likert scale is that subjects may be more comfortable in indicating their positions" (Kumar, 2008), Involvement in purchase decision was measured by a semantic differential scale that was adapted from Mittal&Lee et al (1988).

The wording of questions are another critical issue when designing a research. Question wording "is the translation of the desired question content and structure into words that respondents can clearly and easily understand" (Malhotra and Birks, 2008 p. 384). For the questionnaire, the wording should be ordinary and consist of unambiguous words. It is aimed to avoid leading or biased questions.

In the last step, designed questionnaire were used in a pilot study in order to check reliability, validity and even functionality of the questionnaire

The variables and each item were listed below:

1. Health Consciousness

	Health Consciousness Dutta-Bergman (2004)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	Living life in the best possible health is very important to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I Take preventive measurest ol keep me healthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	My health depends on how well I take care of myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I care healthy feeding to keep me healthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	I do everything I can to stay healthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Level of Knowledge

	Level of Knowledge Brabers et. al. (2103)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I am knowledgeable enough to make an appropriate choice between different types and brands of OTCs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I am confident in my knowledge of OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Among my friends, I am very knowledgeable about OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I know exactly how to use OTC products in a safe way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	When I get advice on OTC products, I can easily get the right information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Price Consciousness

Price Consciousness Lichtenstein et al. 1993		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I am not willing to go to the extra effort to find lower prices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	The money saved by searching for lower prices is usually not worth the time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	The time it takes to find lower prices is usually not worth the effort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I am not willing to search for lower prices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Risk Averseness

Risk Averseness Burton et al.1998		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I don't like to take risks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Compared to most people I know, I don't like to "live life on the edge"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I don't want to take risk for unnecessary things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Compared to most people I know, I don't like to take risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Involvement in purchase decision

Mittal , B . and Lee , M . (1988)

1. In selecting from the many types and brands of OTC products available in the market, would you say that:

1	2	3	4	5	6	7
I don't effort at all	2	3	4	5	6	I effort too much

2. In making the right selection of how concerned would you be about the outcome of your choice?

1	2	3	4	5	6	7
Not at all important	2	3	4	5	6	Extremely important

3. How important would it be to you to make a wrong choice of this product?

1	2	3	4	5	6	7
Never feel sorry	2	3	4	5	6	I am disappointed

4. How important would it be to you to make a wrong choice of this product?

1	2	3	4	5	6	7
I don't care	2	3	4	5	6	I am disappointed

6. Subjective Norm

	Subjective Norm Kim& Chung (2011)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	The suggestion of people who are important to me can influence my intention and purchasing product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	If people who are important to me use and buy the product, I will comply	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	If people who are important to me use support or agree that I will buy the product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I buy the product in order to gain social approval.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Attitude Towards OTC Products

	Attitude Towards OTC Purchase Zhou et. al. (2013)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I like to use OTC products to maintain and promote my health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I believe that OTC products are effective to keep me healthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I think that OTC products are safe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I recommend to use of OTC products to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Perceived Behavioral Control

	Perceived Behavioral Control Ajzen (2002)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I have enough time to find and purchase OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I have enough information to find and access OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I have the resources (financial) to purchase OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I am able to control and solve difficulties when finding/purchasing OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Purchase Intention

	Purchase Intention Fishbein and Ajzen (2010).	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I am intend to purchase OTC in within six months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I am willing to purchase OTC within six months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I attempt to purchase OTC within six months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I try purchase OTC products within six months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	I will definitely purchase OTC products within six months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. QUANTITATIVE RESEARCH: FACTORS AFFECTING CONSUMERS' ATTITUDE AND INTENTION TOWARDS OTC PRODUCTS

4.1. Pilot Study

Many researchers have agreed about the importance of pilot testing of survey instrument. The main objective of this pilot testing is to improve the quality of the questionnaire and notice possible problems that the respondents may report when answering the questions. Pilot study has another purpose that is preventing any problems in recording the data. Pilot data provide an evaluation of validity and reliability the data. These evaluations are important to finalize the process of final research (Saunders et al, 2012). Thus, a pilot study was conducted as pretesting of the questionnaire. This pilot study was aimed to reach at least 100 respondents. Pilot Study has been initiated on 18 th of January and it was reached to 101 responses on 20th of January.

At the first step of data analysis, data were evaluated in terms of missing data, univariate and multivariate outliers, and normality by using SPSS 23 software. Secondly, descriptive analysis of pilot data was done. At the third step, the CFA and SEM analyses were conducted to test the model.

The descriptive data of the pilot study were given in Table 5.

61% of the respondents are male while only 6% of all sample was single. In addition, 61% of the sample has an undergraduate degree while only 2% has less than high school degree. %81 of the respondents are between 18- 44 years old.

Table 5: Demographics data of the Pilot Study

Demographics		Turkey
Gender	Male	62
	Female	39
Marital Status	Single	6
	Married	95
Age	18-24	4
	25-34	40
	35-44	38
	45-54	17
	55 +	2
Education	Less than High School	2
	High School	7
	Undergraduate and Graduate	92

The testing of the measures was done by an exploratory factor analysis.

The result of exploratory factor analysis gave significance of the pilot data: Chi-Square (χ^2) = 765.035, $p = .000 < .05$. The result indicated that the pilot data is relevant for factor analysis.

Table 6: Regression Weights of Pilot Study

Regression Weights: Pilot Study			Estimate	S.E.	C.R.	P	Label
HealthCons 1	<-- -	HealthCons	1.000				
HealthCons 2	<-- -	HealthCons	1.222	.172	7.093	***	
HealthCons 3	<-- -	HealthCons	.928	.157	5.912	***	
HealthCons 4	<-- -	HealthCons	1.184	.164	7.210	***	
HealthCons 5	<-- -	HealthCons	.977	.185	5.284	***	
PriceCons 1	<-- -	PriceCons	1.000				
PriceCons 2	<-- -	PriceCons	1.444	.172	8.381	***	
PriceCons 3	<-- -	PriceCons	1.512	.181	8.364	***	
PriceCons 4	<-- -	PriceCons	.960	.164	5.838	***	
RiskAvers 4	<-- -	RiskAvers	1.000				

Regression Weights: Pilot Study			Estimate	S.E.	C.R.	P	Label
RiskAvers 2	<-- -	RiskAvers	.844	.124	6.805	***	
RiskAvers 1	<-- -	RiskAvers	1.018	.128	7.957	***	
SUBNORM 3	<-- -	SUBNORM	1.000				
SUBNORM 2	<-- -	SUBNORM	1.464	.242	6.040	***	
SUBNORM 1	<-- -	SUBNORM	.857	.144	5.933	***	
LevelofKnow 4	<-- -	LevelofKnow	1.000				
LevelofKnow 3	<-- -	LevelofKnow	.985	.079	12.433	***	
LevelofKnow 2	<-- -	LevelofKnow	.872	.079	11.096	***	
LevelofKnow 1	<-- -	LevelofKnow	.861	.083	10.410	***	
Attitude 4	<-- -	Attitude	1.000				
Attitude 3	<-- -	Attitude	.832	.087	9.593	***	

Regression Weights: Pilot Study			Estimate	S.E.	C.R.	P	Label
Attitude 1	<-- -	Attitude	1.058	.101	10.512	***	
BEHACON 1	<-- -	BEHACON	1.000				
BEHACON 2	<-- -	BEHACON	1.667	.250	6.662	***	
BEHACON 4	<-- -	BEHACON	.913	.184	4.959	***	
PUCHAJNTENTION 1	<-- -	PUCHAJNTENTION	1.000				
PUCHAJNTENTION 2	<-- -	INTENTION	1.052	.047	22.302	***	
PUCHAJNTENTION 3	<-- -	INTENTION	1.003	.054	18.586	***	
PUCHAJNTENTION 4	<-- -	INTENTION	1.017	.063	16.201	***	
INVOLVEPURCHA SEDECL.E 4	<-- -	INVOLVE	1.000				
INVOLVEPURCHA SEDECL.E 3	<-- -	INVOLVE	.727	.066	11.089	***	
INVOLVEPURCHA SEDECL.E 2	<-- -	INVOLVE	.974	.053	18.354	***	

Table 7: Standardized Regression Weights: Pilot Study

Standardized Regression Weights: Pilot Study			Estimate
HealthCons 1	<---	HealthCons	.741
HealthCons 2	<---	HealthCons	.762
HealthCons 3	<---	HealthCons	.633
HealthCons 4	<---	HealthCons	.776
HealthCons 5	<---	HealthCons	.566
PriceCons 1	<---	PriceCons	.677
PriceCons 2	<---	PriceCons	.945
PriceCons 3	<---	PriceCons	.940
PriceCons 4	<---	PriceCons	.622
RiskAvers 4	<---	RiskAvers	.849
RiskAvers 2	<---	RiskAvers	.679
RiskAvers 1	<---	RiskAvers	.823
SUBNORM 3	<---	SUBNORM	.633
SUBNORM 2	<---	SUBNORM	1.045
SUBNORM 1	<---	SUBNORM	.619
LevelofKnow 4	<---	LevelofKnow	.879
LevelofKnow 3	<---	LevelofKnow	.885

Standardized Regression Weights: Pilot Study			Estimate
LevelofKnow 2	<---	LevelofKnow	.835
LevelofKnow 1	<---	LevelofKnow	.807
Attitude 4	<---	Attitude	.846
Attitude 3	<---	Attitude	.801
Attitude 1	<---	Attitude	.850
BEHACON 1	<---	BEHACON	.593
BEHACON 2	<---	BEHACON	.973
BEHACON 4	<---	BEHACON	.574
PUCHAIINTENTION 1	<---	INTENTION	.937
PUCHAIINTENTION 2	<---	INTENTION	.976
PUCHAIINTENTION 3	<---	INTENTION	.937
PUCHAIINTENTION 4	<---	INTENTION	.902
INVOLVEPURCHASEDECI.E 4	<---	INVOLVE	.948
INVOLVEPURCHASEDECI.E 3	<---	INVOLVE	.779
INVOLVEPURCHASEDECI.E 2	<---	INVOLVE	.965

Model fit analysis was done. According to pilot data model has good fit scores.

Table 8: Model Fit Analysis of Pilot Study

Index of Fit	Statistics of Fit	Cut-Off Point	Model Fit
X2	765.035		
X2 (P)	0,000	P>0.05	Poor Fit
X2/DF	1.396,000	<3	Good Fit
CFI	0. 917	>0.90	Good Fit
TLI	0. 905	>0.90	Good Fit
RMSEA	0. 063	<0.05	Good Fit
SRMR	0. 0758	<0.10	Good Fit

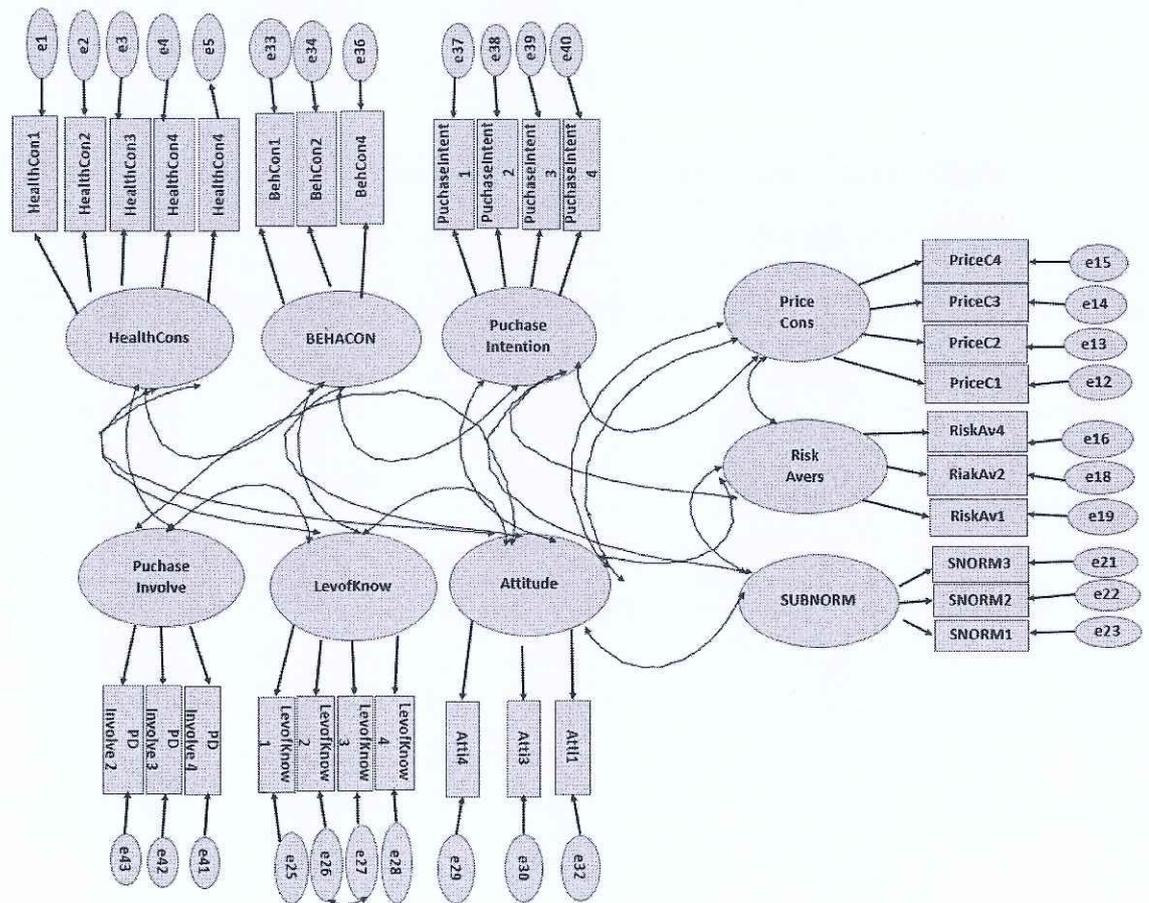
Pilot data has shown that there is no problematic issues when factor analysis was done.

Moreover, the Cronbach's Alpha assessment was done to evaluate reliabilities of the variables and to check the consistency of the scale (Hair at al., 2010). According to the evaluation of the Cronbach's Alpha values, measures used in the study are reliable. Because, all of the variables have the values that are higher than cut-off point (0.7).

Table 9: Values of Cronbach's Alpha for the Factors in the Pilot Study

Variable Name	Cronbach's Alpha Pilot
Attitude towards OTC Products	0.926
Intention to Purchase OTC Products	0.963
Risk Averseness	0.824
Price Consciousness	0.912
Level of Knowledge	0.950
Subjective Norms	0.853
Behavioral Control	0.829
Health Consciousness	0.877
Involvement in purchase decision	0.849

Figure 5. The Model Tested by Pilot Study



Thus, as it is confirmed with analysis of Pilot Study, all factor loadings and reliabilities of the variables, the study was ready to be carried out to the main research.

4.2. Main Research

4.2.1. Screening of Research Data

It was aim to reach at least 500 people for this study. During a month, survey reached to approximately 5000 e-mails. In total, 566 questionnaires were collected. The missing value analysis was done. “Missing responses represent values of a variable that are unknown either because respondents provided ambiguous answers or because their answers were not properly recorded” (Malhotra and Birks, 2008, p. 487). In the data, there were no missing values.

4.2.2. Characteristics of the Participants of the Study

After the data screening process, a total of 566 cases was eligible for the study. The following tables indicated the descriptive statistics from the data which were gathered for this study.

Table 10: Characteristics of the Participants of the Study

		Frequency	Percentage (%)
Education Level	Primary School	6	Less than 1%
	Secondary School	4	Less than 1%
	High School	51	9
	Undergraduate and Graduate	505	89
Gender	Male	259	46
	Female	305	54
Age	18-24 years old	28	5
	25-34 years old	128	23
	35-44 years old	272	48
	45-54 years old	122	21.5
	55-74 years old	11	2

		Frequency	Percentage (%)
Marital Status	Single	147	26
	Married	382	68
	Divorced	31	5
	Widow	6	Less than 1%
Income Level	Less than 1.000 TL	19	3
	1.000-1999 TL	31	5
	2000-2999 TL	45	8
	3000- 3999 TL	86	15
	4000-4999 TL	72	13
	5000- 5999 TL	38	7
	6000-6999 TL	14	2
	More than 7000 TL	136	24
	No Answer	137	24
	Occupation	Not working	2
Retired		37	7
Owner of Small Business		30	5
Housewife		22	4
Worker		5	Less than 1%
Work for Government		122	22
Medium or Big size Business Owner		77	14
Worker for Private Companies		260	46
Student		32	6
Total		566	100

4.2.3. Analysis of Survey Data

The proposed model was tested by using structural equation modeling process. Structural Equation Modeling “enables the researcher to simultaneously examine a series of interrelated dependence relationships among the measured variables and latent constructs” (Hair et al., 2010, p. 634). In the structural equation modeling process, two steps were followed. Firstly, Confirmatory Factor Analysis (CFA) was used to measure construct validity and fit scores of the model. When the results show

satisfactory construct validity and fit scores, the second step, structural testing was applied to test model overall. (Hair et al., 2010).

4.2.4. Initial Model Testing

4.2.4.1. Initial Model - Confirmatory Factor Analysis (CFA) Analysis

Testing of the initial model was tested by defining each of the constructs, developing and specifying the measurement model, producing empirical results and assessing the measurement model validity. The initial measurement model was shown in Figure 2. In the model, RA refers to risk averseness, PDI refers to involvement in purchase decision, HC refers to Health consciousness, PC refers to price consciousness, LK refers to level of knowledge, AT refers to attitude, BC refers to behavioral control, SN refers to subjective norms, and PI refers to purchase intention. The Maximum Likelihood Estimation was used to test the data.

The validity of the initial model was assessed. The results of model validity were given below in Table 11 and Table 12

. The each of individual parameters and standard regression weights were shown the significance of survey data. Moreover, all standardized loading estimates were higher than 0.5.

Table 11: Initial Model Testing: Standardized Regression Weights

Standardized Regression Weights of the Initial Model			Estimate
HealthCon 1	<---	HealthConsciousness	.820
HealthCon 2	<---	HealthConsciousness	.807
HealthCon 3	<---	HealthConsciousness	.739
HealthCons 4	<---	HealthConsciousness	.836
PriceCons 3	<---	PriceConsciousness	.964
PriceCons 2	<---	PriceConsciousness	.952
RiskAvers 4	<---	RiskAverseness	.810
RiskAvers 3	<---	RiskAverseness	.730
RiskAvers 2	<---	RiskAverseness	.801
SUBNORM 3	<---	SubjectiveNorm	.765
LevelofKnow 1	<---	LevelofKnowledge	.874
LevelofKnow 2	<---	LevelofKnowledge	.919
LevelofKnow 3	<---	LevelofKnowledge	.906
LevelofKnow 4	<---	LevelofKnowledge	.936
Attitude 1	<---	Attitude	.893
Attitude 2	<---	Attitude	.906
Attitude 3	<---	Attitude	.830
Attitude 4	<---	Attitude	.854

Standardized Regression Weights of the Initial Model			Estimate
BEHACON2	<---	BehavioralControl	.899
PurchaseIntent 1	<---	PurchaseIntention	.925
PurchaseIntent 2	<---	PurchaseIntention	.974
PurchaseIntent 3	<---	PurchaseIntention	.942
PurchaseIntent 4	<---	PurchaseIntention	.884
PurcDeciInvol 4	<---	PurchaseDecisionInvolvement	.890
PurcDeciInvol 3	<---	PurchaseDecisionInvolvement	.679
PurcDeciInvol 2	<---	PurchaseDecisionInvolvement	.843
BEHACON 3	<---	BehavioralControl	.571
BEHACON 1	<---	BehavioralControl	.721
SUBNORM 1	<---	SubjectiveNorm	.796
SUBNORM 2	<---	SubjectiveNorm	.873
PriceCons 4	<---	PriceConsciousness	.743
PriceCons 1	<---	PriceConsciousness	.718
BEHACON 4	<---	BehavioralControl	.752

Table 12: Initial Model Testing: Estimates of the Regression Weights

Regression Weights Estimates of the Initial Model			Estimate	S.E.	C.R.	P	Label
HealthCons 1	<---	HealthConsciousness	1.000				
HealthCons 2	<---	HealthConsciousness	.889	.042	21.198	***	par_1
HealthCons 3	<---	HealthConsciousness	.884	.047	18.919	***	par_2
HealthCons 4	<---	Health Consciousness	.994	.045	22.128	***	par_3
PriceCons 3	<---	Price Consciousness	1.216	.050	24.344	***	par_5
PriceCons 2	<---	Price Consciousness	1.221	.051	24.119	***	par_6
RiskAvers 4	<---	Risk Averseness	1.000				
RiskAvers 3	<---	Risk Averseness	.753	.046	16.499	***	par_7
RiskAvers 2	<---	Risk Averseness	.932	.053	17.470	***	par_8
SUBNORM 3	<---	Subjective Norm	1.000				
LevelofKnow 1	<---	Level of Knowledge	1.000				
LevelofKnow 2	<---	Level of Knowledge	1.055	.024	43.525	***	par_9

Regression Weights Estimates of the Initial Model			Estimate	S.E.	C.R.	P	Label
LevelofKnow 3	<---	Level of Knowledge	1.074	.034	31.162	***	par_10
LevelofKnow 4	<---	Level of Knowledge	1.075	.032	33.206	***	par_11
Attitude1	<---	Attitude	1.000				
Attitude2	<---	Attitude	.989	.030	32.428	***	par_12
Attitude3	<---	Attitude	.833	.031	26.951	***	par_13
Attitude4	<---	Attitude	.973	.034	28.570	***	par_14
BEHACON2	<---	Behavioral Control	1.000				
PurchaseIntent 1	<---	Purchase Intention	1.000				
PurchaseIntent 2	<---	PurchaseIntention	1.053	.022	48.165	***	par_15
PurchaseIntent 3	<---	Purchase Intention	1.013	.024	42.711	***	par_16
PurchaseIntent 4	<---	Purchase Intention	1.042	.030	34.714	***	par_17
PurcDeciInvol 4	<---	Involvement in purchase decision	1.000				
PurcDeciInvol 3	<---	Involvement in purchase decision	.653	.039	16.938	***	par_18
PurcDeciInvol 2	<---	Involvement in purchase decision	.975	.048	20.367	***	par_19
BEHACON3	<---	Behavioral Control	.557	.038	14.540	***	par_62

Regression Weights Estimates of the Initial Model			Estimate	S.E.	C.R.	P	Label
BEHACON1	<---	Behavioral Control	.810	.041	19.951	***	par_63
SUBNORM 1	<---	Subjective Norm	.987	.054	18.406	***	par_66
SUBNORM 2	<---	Subjective Norm	1.073	.056	19.062	***	par_67
PriceCons 4	<---	Price Consciousness	1.000				
PriceCons 1	<---	Price Consciousness	.928	.053	17.581	***	par_68
BEHACON4	<---	Behavioral Control	.819	.039	21.231	***	par_70

The model fit was evaluated by Goodness of fit statistics (GOF). GOF measures “how well a specified model reproduces the observed covariance matrix among the indicator items” (Hair et al, 2010, p.632). As recommended, the goodness of fit multiple indices were checked (Kline, 2016). Measurement of Chi-Square (χ^2), absolute fit indexes, incremental fit indexes, the goodness of fit indexes, and badness of fit indexes were evaluated (Hair et al, 2010). Specifically, a chi-square test was tested by the normed Chi-Square test. The absolute fit index was evaluated by the Standardized Root Mean Square Residual (SRMR). The goodness of fit index was checked by Tucker-Lewis Index, the incremental fit index was checked by Comparative Fit Index (CFI). The Lastly, the badness of fit index was evaluated by Root Mean Square Error of Approximation (RMSEA).

In order to check the significance of indices each of cutting values were used as follow: (1) CFI>0.9 means a good fit for the model (Hair et al, 2010). (2) SRMR < 10 means a good fit (Kline, 2016). (3) no exact cut-off value for the RMSEA, but general acceptance as RMSEA the values lower than 0.05 shows a perfect fit and values

between 0.05 and 0.08 means moderate fit. (4) GFI is > 0.90 indicates a good fit of the model (Hooper, 2008). Data shows 0.900 GFI, thus model has strong fit scores.

The Chi-Square, normed Chi-Square, CFI, TLI, RMSEA, SRMR and GFI values of the initial model were given in Table 13. The results showed that all three models have a good fit (SRMR<10, RMSEA<0.08, CFI>0.90, TLI>0,90, GFI>0,90 and normed Chi-Square<3).

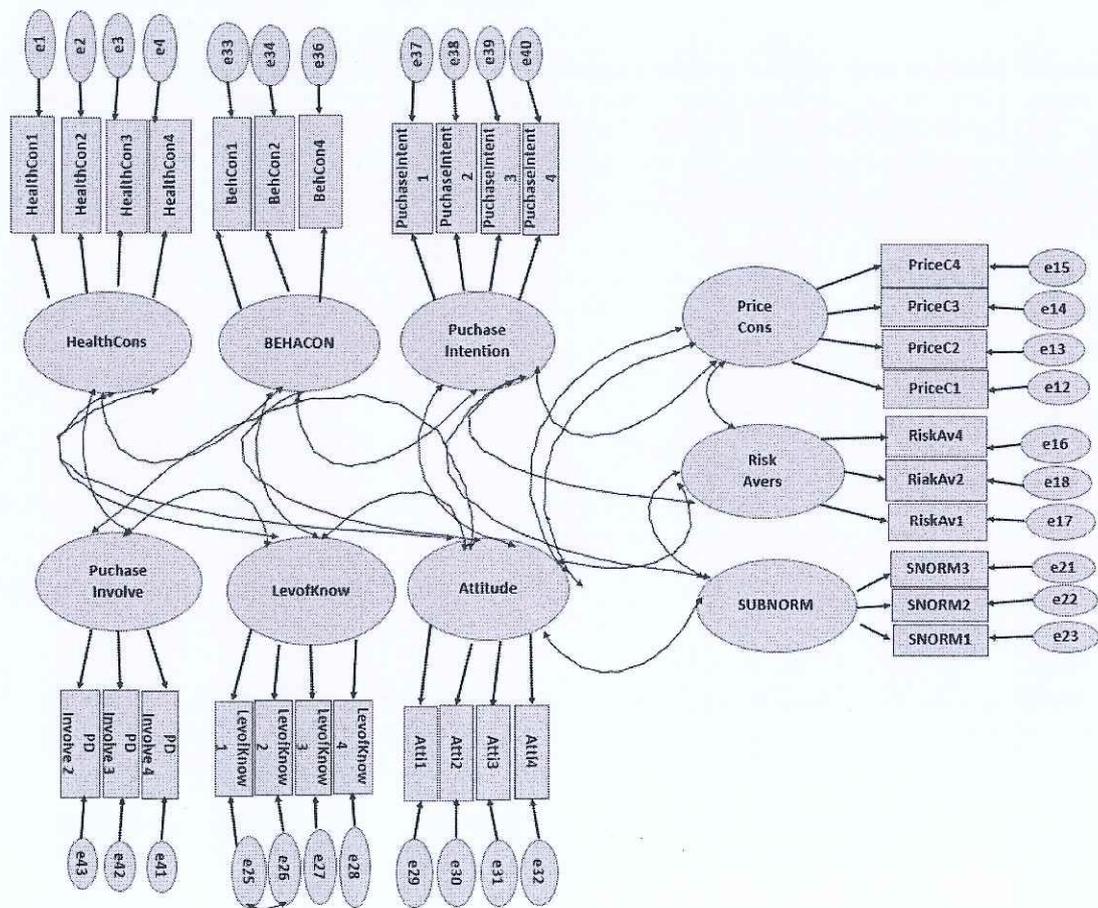
Table 13: Goodness of Fit Statistics of the Initial Model

Data	χ^2	χ^2 (P)	χ^2/DF	CFI	TLI	RMSEA	SRMR	GFI
Study								0.
Data	1154.116	0,000	2.110	0.962	0.956	0.044	0.0466	900

Even though the model fit scores are at acceptable limits, some minor modifications were applied by the AMOS software to the model in order to get more reliable and valid results, and also increase the measurement model fit. According to Hair et al. (2010), until 20% modifications and deletions of the measured variables can be done that is considered as a minor modification. In this study less than 20% of the items were eliminated from the study. Thus, it can be considered as a minor modification.

The initially tested model after Confirmatory Factor Analysis (CFA) is shown in Figure 6.

Figure 6. Path Diagram of Initial Model



4.2.4.2. Validity and Reliability Analysis of the Constructs

Validity is defined as “the extent to which research is accurate” (Hair et al, 2009, p. 679).

Construct validity is composed of several components such as face validity, convergent validity, and discriminant validity. Convergent validity could be evaluated

by factor loading scores that should be over 0.5 and Average Variance Extracted (AVE) values should also be over 0.5. (Hair et al. 2009)

Kline (2016) defines the composite reliability as the ratio of explained variance over total variance. If there are high composite reliability values, there is the higher internal consistency of the same construct. The limit of composite reliability was taken as 0.7 an upper for the existence of high internal consistency (Hair et al., 2009). As it is shown in Table 14, all the values were over 0.7. Thus, the results confirmed the existence of convergent validity.

Table 14. Convergent Validity and AVE scores.

	CR	AVE
Purchase Intention	0.963	0.868
Health Consciousness	0.877	0.642
Price Consciousness	0.912	0.726
Risk Averseness	0.824	0.610
Subjective Norm	0.853	0.660
Level of Knowledge	0.950	0.826
Attitude	0.926	0.759
Behavioral Control	0.829	0.555
Involvement in purchase decision	0.849	0.655

4.2.4.3. Discriminant Validity

Discriminant validity is “the extent to which a measure does not correlate with other constructs from which it is supposed to differ” (Malhotra, 2008, p. 359). High discriminant validity means that each of the constructs has unique characteristics (Hair et al., 2009). Table 15 indicates the discriminant validity scores of the model.

Table 15: Discriminant Validity scores for Initial Model

	MSV	ASV	Purchase Intention	Health Cons.	Price Cons.	Risk Avers.	Subjective Norm	Level of Knowledge	Attitude	Behavioral Control	Involvement of PurchDeci.
Purchase Intention	0.632	0.175	0.932								
Health Cons.	0.152	0.083	0.293	0.802							
Price Cons.	0.033	0.017	0.106	0.114	0.852						
Risk Avers	0.141	0.036	0.095	0.376	0.183	0.781					
Subjective Norm	0.076	0.038	0.208	0.275	0.069	0.226	0.813				
Level of Knowledge	0.632	0.161	0.515	0.212	0.181	0.022	0.123	0.909			
Attitude	0.632	0.196	0.795	0.390	0.121	0.092	0.256	0.547	0.872		
Behavioral Control	0.632	0.189	0.582	0.325	0.091	0.147	0.162	0.795	0.605	0.745	
Involvement of PurchDeci	0.047	0.020	0.133	0.216	-0.119	0.150	0.138	0.042	0.166	0.114	0.809

Moreover, discriminant validity can be evaluated by checking the relationship of the Maximum Shared Squared Variance (MSV) and the Average Squared Variance (ASV) values with the Average Variance Extracted (AVE) values. There must be the higher Average Variance Extracted (AVE) values than both The Maximum Shared Squared Variance (MSV) and the Average Squared Variance (ASV) values. Table 16 shows the AVE, MSV, and ASV values for the data. The results indicated that there is only

one item that is the square root of the AVE for BC is less than one the absolute value of the correlations with another factor, and the AVE for BC is less than the MSV.

Table 16: Discriminant Validity Control: AVE, MSV, and ASV values

	AVE	MSV	ASV
PurchaseIntention	0.868	0.632	0.170
HealthConsciousness	0.642	0.529	0.133
PriceConsciousness	0.726	0.034	0.017
RiskAverseness	0.610	0.153	0.049
SubjectiveNorm	0.660	0.112	0.046
LevelofKnowledge	0.826	0.632	0.161
Attitude	0.759	0.632	0.199
BehavioralControl	0.555	0.632	0.189
PurchaseDecisionInvolvement	0.655	0.058	0.025

According to the CFA analysis, only BC gives the problematic result.

Even though all the convergent validity and AVE scores are strong, the MSV score of the perceived behavioral control is needed to be revised by modifying the model.

The reason of this problem may come from perceived behavioral control variable has a higher correlation with other variable that explains better than parent factor. (Hair, 2010)

Some items were omitted to overcome this minor problem in modified model. The limit of this deletion was in an acceptable level, less than 20% of the items. (Hair et al., 2010)

4.2.5. Test of Measurement Model for Modified Model

4.2.5.1. Modified Model- Confirmatory Factor Analysis (CFA) Analysis

If the standardized loading estimates are over 0.5, this means that items are strongly related to their associated factors.

Thus, confirmatory factor Analysis (CFA) analysis of modified model gave strong standardized regression weights scores. These scores are given in Table 17.

Table 17: Modified Model Testing: Standardized Regression Weights

Standardized Regression Weight: Modified Model			Estimate
HealthCons 1	←-	Health Consciousness	.819
HealthCons 2	<---	Health Consciousness	.802
HealthCons 3	<---	Health Consciousness	.743
HealthCons 4	<---	Health Consciousness	.839
PriceCons 4	<---	PriceConsciousness	.743
PriceCons 3	<---	PriceConsciousness	.964
PriceCons 2	<---	PriceConsciousness	.952
PriceCons 1	<---	PriceConsciousness	.718

Standardized Regression Weight: Modified Model			Estimate
RiskAverse 4	<---	RiskAverseness	.813
RiskAverse 3	<---	RiskAverseness	.726
RiskAverse 2	<---	RiskAverseness	.801
SUBNORM 3	<---	SubjectiveNorm	.764
SUBNORM 2	<---	SubjectiveNorm	.871
SUBNORM 1	<---	SubjectiveNorm	.799
LevelofKnow 1	<---	LevelofKnowledge	.875
LevelofKnow 2	<---	LevelofKnowledge	.919
LevelofKnow 3	<---	LevelofKnowledge	.906
LevelofKnow 4	<---	LevelofKnowledge	.935
Attitude 1	<---	Attitude	.893
Attitude 2	<---	Attitude	.906
Attitude 3	<---	Attitude	.830
Attitude 4	<---	Attitude	.855
BEHACON 2	<---	BehavioralControl	.899
PurchaseIntentI 1	<---	PurchaseIntention	.925
PurchaseIntent 2	<---	PurchaseIntention	.974
PurchaseIntent 3	<---	PurchaseIntention	.942
PurchaseIntent 4	<---	PurchaseIntention	.884

Standardized Regression Weight: Modified Model			Estimate
PurchaseDeciInvolve 4	<---	PurchaseDecision Involvement	.890
PurchaseDeciInvolve 3	<---	PurchaseDecision Involvement	.678
PurchaseDeciInvolve 2	<---	PurchaseDecision Involvement	.844
BEHACON 4	<---	BehavioralControl	.752
BEHACON 3	<---	BehavioralControl	.571
BEHACON 1	<---	BehavioralControl	.721

Moreover, the parameter estimates are given in Table 18. The significance of all parameters was proved. This means that each of items significantly contribute to the model.

Table 18: Modified Model Testing: Estimates of the Regression Weights

Regression Weights for modified Confirmatory Factor Analysis (CFA)			Estimate	S.E.	C.R.	P	Label
HealthCons1	<---	Health Consciousness	1.000				
HealthCons2	<---	Health Consciousness	.885	.043	20.785	***	par_1
HealthCons3	<---	Health Consciousness	.891	.047	18.891	***	par_2
HealthCons4	<---	Health Consciousness	.999	.046	21.877	***	par_3
PriceCons 4	<---	PriceConsciousness	1.000				
PriceCons3	<---	PriceConsciousness	1.215	.050	24.343	***	par_4
PriceCons 2	<---	PriceConsciousness	1.221	.051	24.124	***	par_5
PriceCons 1	<---	PriceConsciousness	.928	.053	17.581	***	par_6
RiskAverse 4	<---	RiskAverseness	1.000				
RiskAverse 3	<---	RiskAverseness	.747	.045	16.422	***	par_7

Regression Weights for modified Confirmatory Factor Analysis (CFA)			Estimate	S.E.	C.R.	P	Label
RiskAverse2	<---	RiskAversenes s	.928	.053	17.412	***	par_8
SUBNORM 3	<---	SubjectiveNor m	1.000				
SUBNORM 2	<---	SubjectiveNor m	1.072	.056	18.998	***	par_9
SUBNORM1	<---	SubjectiveNor m	.992	.054	18.412	***	par_10
LevelofKnow 1	<---	LevelofKnowl edge	1.000				
LevelofKnow 2	<---	LevelofKnowl edge	1.055	.024	43.537	***	par_11
LevelofKnow 3	<---	LevelofKnowl edge	1.073	.034	31.169	***	par_12
LevelofKnow 4	<---	LevelofKnowl edge	1.074	.032	33.214	***	par_13
Attitude2	<---	Attitude	.989	.031	32.360	***	par_14
Attitude3	<---	Attitude	.833	.031	26.928	***	par_15
Attitude4	<---	Attitude	.974	.034	28.609	***	par_16

Regression Weights for modified Confirmatory Factor Analysis (CFA)			Estimate	S.E.	C.R.	P	Label
BEHACON 2	<---	BehavioralCo ntrol	1.000				
PurchaseIntent I1	<---	PurchaseIntent ion	1.000				
PurchaseIntent 2	<---	PurchaseIntent ion	1.054	.022	48.169	***	par_17
PurchaseIntent 3	<---	PurchaseIntent ion	1.013	.024	42.686	***	par_18
PurchaseIntent 4	<---	PurchaseIntent ion	1.042	.030	34.710	***	par_19
PurchaseDeciI nvolve4	<---	PurchaseDecis ion Involvement	1.000				
PurchaseDeciI nvolve 3	<---	PurchaseDecis ion Involvement	.652	.039	16.902	***	par_20
PurchaseDeciI nvolve 2	<---	PurchaseDecis ion Involvement	.974	.048	20.319	***	par_21
BEHACON 4	<---	BehavioralCo ntrol	.818	.039	21.229	***	par_60

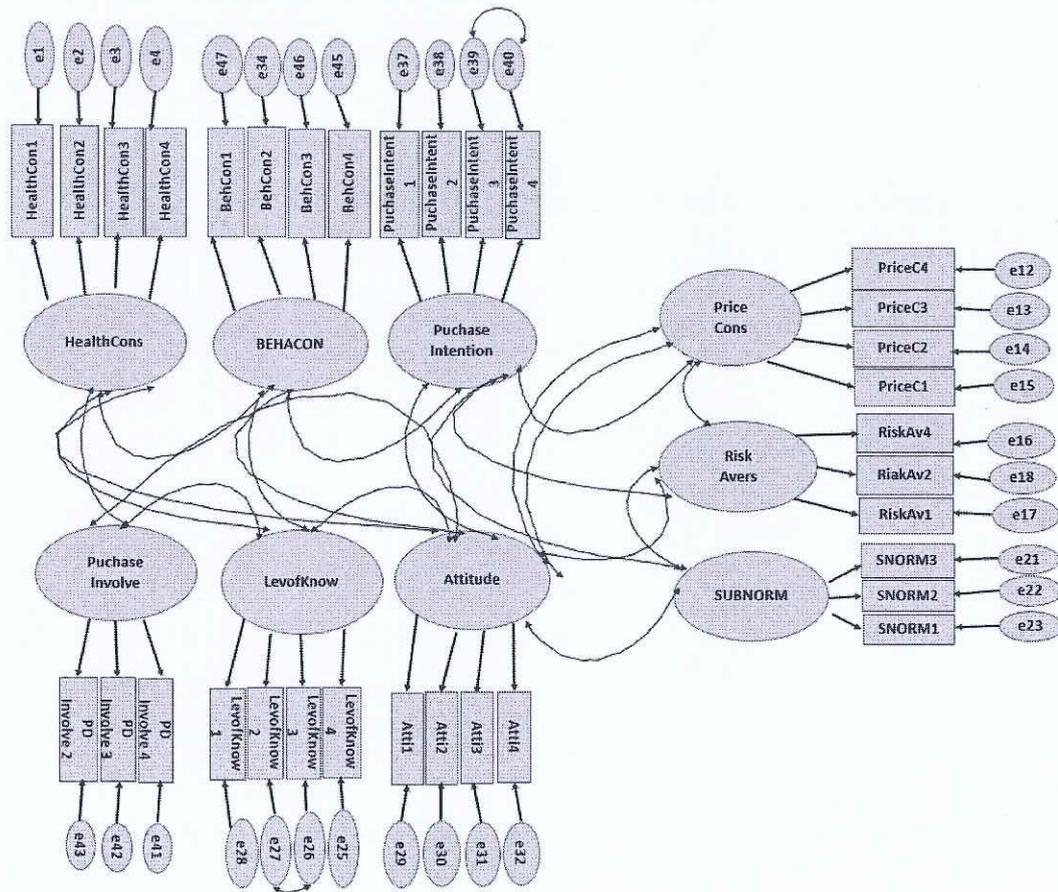
Regression Weights for modified Confirmatory Factor Analysis (CFA)			Estimate	S.E.	C.R.	P	Label
BEHACON 3	<---	BehavioralControl	.556	.038	14.539	***	par_61
BEHACON1	<---	BehavioralControl	.809	.041	19.949	***	par_62

Besides CFA analysis, Goodness of Fit Statistics of the Modified Model was given significant scores that are shown in Table 19. The limits and thresholds of model fit values are discussed in the previous session. All the values confirmed that the model fits very well.

Table 19: Modified Model- Goodness of Fit Statistics

Fit Index	Fit Statistics	Cut-Off Point	Model Fit
χ^2	1018.841	P>0.05	Poor Fit
χ^2 (P)	0,000		
χ^2/DF	2.229,00	<3	Good Fit
CFI	0.963	>0.90	Good Fit
TLI	0.957	>0.90	Good Fit
RMSEA	0.047	<0.05	Good Fit
SRMR	0.0472	<0.10	Good Fit
GFI	0.904	<0.90	Good Fit

Figure 7. Path Diagram of Modified Model



4.2.5.2. Modified Model- Validity and Reliability Analysis of the Constructs

Validity and reliability evaluations were discussed in the previous session. The table below shows all the score of validity and reliability analysis. Thus, modified model gave significant scores to confirm reliability and validity of each construct.

Table 20: Modified Model- AVE and Composite Reliability Values (CR)

Variables of Modified Model	CR	AVE
PurchaseIntention	0.963	0.868
Health Consciousness	0.878	0.642
PriceConsciousness	0.912	0.726
RiskAverseness	0.824	0.610
SubjectiveNorm	0.853	0.660
LevelofKnowledge	0.950	0.826
Attitude	0.927	0.760
BehavioralControl	0.829	0.555
PurchaseDecisionInvolvement	0.849	0.655

4.2.5.3. Modified Model- Discriminant Validity

Discriminant validity of modified model was confirmed. The scores of discriminant validity were indicated below in Table 21.

Table 21: Discriminant Validity scores of modified model

	MSV	ASV	Purchase Intention	Health Cons.	Price Cons.	Risk Avers.	Subjective Norm	Level of Knowledge	Attitude	Behavioral Control	Involvement of PurchDeci.
Purchase Intention	0.632	0.175	0.932								
Health Cons.	0.152	0.083	0.293	0.802							
Price Cons.	0.033	0.017	0.106	0.114	0.852						
Risk Avers	0.141	0.036	0.095	0.376	0.183	0.781					
Subjective Norm	0.076	0.038	0.208	0.275	0.069	0.226	0.813				
Level of Knowledge	0.632	0.161	0.515	0.212	0.181	0.022	0.123	0.909			
Attitude	0.632	0.196	0.795	0.39	0.121	0.092	0.256	0.547	0.872		
Behavioral Control	0.532	0.189	0.582	0.325	0.091	0.147	0.162	0.795	0.605	0.744	
Involvement of PurchDeci	0.047	0.02	0.133	0.216	-0.119	0.15	0.138	0.042	0.166	0.114	0.809

There is no any problematic relationship between variables. The results indicated that all the variables have discriminant validity in Modified Model

Table 22: Modified Model- AVE, MSV, and ASV Values

Variables of Modified Model	AVE	MSV	ASV
PurchaseIntention	0.868	0.632	0.175
Health Consciousness	0.642	0.152	0.083
PriceConsciousness	0.726	0.033	0.017
RiskAverseness	0.610	0.141	0.036
SubjectiveNorm	0.660	0.076	0.038
LevelofKnowledge	0.826	0.632	0.161
Attitude	0.760	0.632	0.196
BehavioralControl	0.555	0.532	0.189
PurchaseDecisionInvolvement	0.655	0.047	0.020

The results confirmed the existence of the discriminant validity for all the constructs.

4.2.6. Structural Equation Modeling (SEM) Analysis of the Study

The previous data analysis confirmed that the proposed measurement model was reliable, valid, and good model fit. In this part, the measurement model was converted to the structural model. Then, structured model was tested by SEM. Thus, the hypothesis testing was done by SEM according to structured model data. The structural model is shown in Figure 8.

4.2.6.1. Structured Model- Goodness of Fit Statistics

Even though Chi-square value gave a poor fit, it can be acceptable for such size of sampling. If there will be higher sample size, this fit score could most probably be the better. Rest of the evaluation criteria (normed chi-square, CFI, TLI, RMSEA, and SRMR) gave good model fit.

Table 23: Goodness of Fit Statistics of the Structural Model

Fit Index	Fit Statistics	Cut-Off Point	Model Fit
χ^2	1141.460		
$\chi^2 (P)$	0,000	$P > 0.05$	Poor Fit
χ^2/DF	2.408	< 3	Good Fit
CFI	0.956	> 0.90	Good Fit
TLI	0.951	> 0.90	Good Fit
RMSEA	0.05	< 0.05	Good Fit
SRMR	0.0795	< 0.10	Good Fit

4.2.6.2. Final Model- Structural Equation Modeling (SEM) Analysis and Hypothesis Testing

Standardized Regression Weights, Regression Weights and model testing were done by SEM. The results were given Table 24, Table 25 and Table 26 respectively.

According to the results, evaluation of hypothesis testing was done and summarized in Table 27.

Table 24: Structured Model- Standardized Regression Weights- SEM

Standardized Regression Weights- SEM			
			Estimate
Attitude	<---	Health Consciousness	0.289
Attitude	<---	PriceConsciousness	0.005
Attitude	<---	RiskAverseness	-0.03
Attitude	<---	LevelofKnowledge	0.496
BehavioralControl	<---	PurchaseDecision Involvement	0.084
BehavioralControl	<---	LevelofKnowledge	0.797
PurchaseIntention	<---	BehavioralControl	0.166
PurchaseIntention	<---	Attitude	0.709
PurchaseIntention	<---	SubjectiveNorm	0.016

Table 25: Structured Model- Regression Weights - SEM

Regression Weights- SEM							
			Estimate	S.E.	C.R.	P	Label
Attitude	<-- -	Health Consciousness	0.331	0.051	6.551	***	par_37
Attitude	<-- -	PriceConsciousness	0.006	0.039	0.145	0.884	par_38
Attitude	<-- -	RiskAverseness	-0.03	0.044	-0.697	0.486	par_39
Attitude	<-- -	LevelofKnowledg e	0.449	0.037	12.154	***	par_40
BehavioralControl	<-- -	PurchaseDecision Involvement	0.046	0.018	2.596	0.009	par_41
BehavioralControl	<-- -	LevelofKnowledg e	0.751	0.035	21.202	***	par_45
PurchaseIntention	<-- -	BehavioralControl	0.178	0.036	4.886	***	par_42
PurchaseIntention	<-- -	Attitude	0.795	0.042	18.835	***	par_43
PurchaseIntention	<-- -	SubjectiveNorm	0.02	0.037	0.54	0.589	par_44

The results showed that health consciousness ($\beta=.331$, $p=.000$) and level of knowledge ($\beta=.449$, $p=.000$), price consciousness positively affect consumers' attitude towards OTC products. On the other hand, consumers' attitude towards ($\beta=.795$, $p=.000$) OTC products has a positive effect on their intention to buy OTC products. In addition, behavioral control positively affects consumers' intention to purchase OTC products. Moreover, involvement in purchase decision ($\beta=.046$, $p=.009$) has a positive effect on behavioral control at the significance level.

Table 26: Testing of Structured Model with SEM

Results of Structural Equation Modelling							
En. V.		Ex. V.	Estimate	Std. Estimate	S.E.	C.R.	P
Attitude	<---	Health Consciousness	0.331	0.289	0.051	6.551	***
Attitude	<---	Price Consciousness	0.006	0.005	0.039	0.145	0.884
Attitude	<---	Risk Aversion	-0.03	-0.03	0.044	-0.697	0.486
Attitude	<---	Level of Knowledge	0.449	0.496	0.037	12.154	***
Behavioral Control	<---	Purchase Decision Inv.	0.046	0.084	0.018	2.596	0.009
Behavioral Control	<---	Level of Knowledge	0.751	0.797	0.035	21.202	***
Purchase Intention	<---	Behavioral Control	0.178	0.166	0.036	4.886	***
Purchase Intention	<---	Attitude	0.795	0.709	0.042	18.835	***
Purchase Intention	<---	Subjective Norm	0.02	0.016	0.037	0.54	0.589

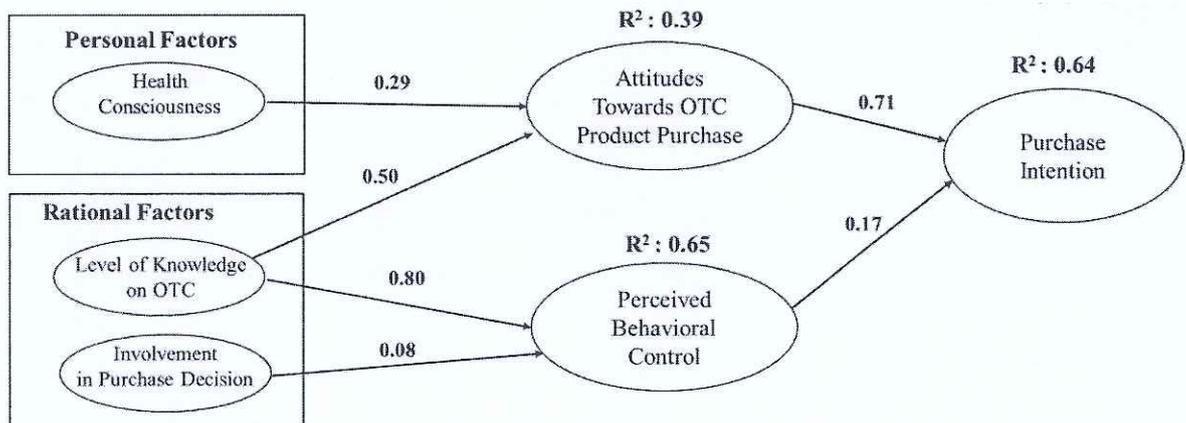
Table 27: Hypothesis Evaluation

Hypotheses	Results
<i>H1: Consumers' attitude towards OTC products is positively related to the intention to purchase OTC products.</i>	Supported
<i>H2: The higher the health consciousness of consumers, the more favorable the attitude towards OTC products.</i>	Supported
<i>H3: The higher the risk averseness of consumers, the less favorable the attitude towards OTC products.</i>	Not Supported
<i>H4: The higher the level of knowledge of consumers on OTC products, the more favorable the attitude towards OTC products.</i>	Supported
<i>H5: The higher the price consciousness of consumers, the less favorable the attitude towards OTC products.</i>	Not Supported
<i>H6: The higher the perceived behavioral control, the higher the intention to buy OTC products.</i>	Supported
<i>H7: The higher the level of knowledge of consumers on OTC products, the more favorable the behavioral control on OTC products.</i>	Supported
<i>H8: The higher involvement in purchase decision, the higher the perceived behavioral control on OTC products</i>	Supported
<i>H9: The higher the subjective norms, the higher the intention to buy OTC products</i>	Not Supported

4.3. The Formation of Final Model

According to SEM results, the model test gave significant scores. Evaluation of the hypothesis was done to prove or disprove the proposed relationship between variable. Thus, the result of the study formed a 'Final Model' that was given in **Figure 9**.

Figure 9. Final Model



5. DISCUSSION, IMPLICATIONS AND CONCLUSIONS

5.1. Introduction

In this chapter, summary of findings, discussion about the results, theoretical implications and practical implications, limitations and recommendations for forthcoming research, and conclusions.

Firstly, there are some valuable studies that were about health related- behavior or health-related consumer behavior. For example, McEachan RRC. et al. (2011) has shown that TPB is a useful theory to build a model and to get strong predictions of intention and behaviour across a range of health behaviors. It was found that behaviour type moderated relationships amongst the model components and that physical activity and dietary behaviors were better predicted by the model. (133)

Due to relevant strong evidence on the relevance of TBP to study health-related consumer behavior, the research model of the study was based on Theory of Planned Behaviour (TBP).

5.2. Discussions

The results of the study have some similarities and discrepancies when then compare with current literature.

In the following part each of the variable on the proposed model is discussed by referring the comparison with the related literature.

5.2.1. Relationship of Health Consciousness with Attitude Towards OTC Products:

Health consciousness is one of the chosen variables to test the impact on attitude towards OTC products in this study.

In the literature, some studies tested the relationship of health consciousness with attitude towards OTC products (i.e. dietary supplements and minerals and vitamin

supplement), Willis, E. et.al. (2016) examined the relationship of consumers' familiarity to supplement's advertising or their level of health consciousness with their attitudes toward different types of dietary supplements. The result showed that health consciousness is an important factor that determine attitudes toward different nutritional supplements.

Moreover, there are some researches that have studied the relationship of health consciousness and attitude towards organic products consumption. All of the related studies confirmed the strong significant relationship between health consciousness and attitude to organic food purchasing. (Michaelidou et. al (2011); Kim and Chung, 2011; Wandel&Bugge, 1997; Vindigni, 2002; Chen, 2009; Irianto, 2015; Tarkiainen and Sundqvist, 2005)

Specifically, there is a similar study from Turkey. Ergin (2011) showed the positive correlation of health consciousness with organic food consumption in Turkey.

On the other hand, Van der Horst, et. al. (2011) examined correlates of Vitamins, Minerals and Supplement (VMS) use and whether VMS users can be categorized into specific clusters based on dietary lifestyle variables. Interestingly, an inverse association was found for health consciousness, indicating that with increasing health consciousness, respondents were less likely to consume VMS several times per week. Additionally, Matic M. et.al (2015) studied the influence of consumers' intentions towards purchasing natural cosmetics, the results indicated that there is no relationship of health consciousness with attitude towards purchase intention of natural cosmetic products.

In this study, relationship with health consciousness and attitude towards OTC products were studied. The analysis of data revealed that overall health consciousness is an important determinant of attitude towards OTC products. This result is in correlation with some results of previous studies as presented above.

5.2.2. Relationship of Risk Averseness with Attitude Towards OTC Products:

Definition of risk averseness is ‘a personality characteristic that avoids one from taking risks. (Zinkhan& Karande, 1990).

In the literature, some valuable studies that examined the relationship between risk and attitude towards health-related topics, drugs, OTC products. Alfadl et. al. (2013) studied risk averseness of consumer on attitude towards counterfeit drugs. The result was indicated that there is no correlation between risk averseness and attitude.

On the other hand, Lechuga-Besné et al. (2009) studied the relationship of risk with the attitude towards the use of Over the Counter (OTC) cold/flu medications. The result showed that risk perception is a strong predictor of the attitude of the users.

There are some other studies that examined the relationship of risk with attitude in many different kinds of topics. The results were controversial. Although some of the studies found a strong relationship between this two variable, some others indicated there is no relationship between them.

In the current study, the hypothesis about risk averseness was that ‘*The higher the risk averseness of consumers, the less favorable the attitude towards OTC products*’. But, the results showed that risk averseness does not affect attitude towards OTC products.

5.2.3. Relationship of Level of Knowledge with both Attitude Towards OTC Products and Perceived Behavioral Control.

In the context of consumer purchase decision process, the level of knowledge is one of the important variables. In the body of literature, some studies showed that level of knowledge was strongly related to health behaviors of patients (Clemet, 2009; Baker, 2006).

Specifically, Kontogiorgis et. al. (2016) studied on the relationship of consumers' knowledge with attitudes towards Over-The-Counter analgesic medication in Greece. The result of the study showed that level of knowledge has a correlation with the attitude towards OTC drug use, i.e. paracetamol in Greece.

There is another study that was specifically about OTC products. Manohar, HD et. al (2015) studied the importance of knowledge and attitude towards the use of Over the Counter Medications. The result showed that majority of the respondents are choosing OTC drugs and most of them don't have the knowledge about the side effects of OTC drugs. Thus, the study indicated that there is no relationship between the level of knowledge and attitude towards OTC medications. .

There are some valuable studies that are about the level of knowledge and attitude and behavioral control towards generic drugs.

Babar et. al. (2010) studied the relationship between level of knowledge about generic medicines and recommendations by health care professionals. The result showed that the level of knowledge is one of the determinant factors when decide to buy generic medicines or accept the generic substitution.

Moreover, Hassali MA (2005), Quintal C. (2012) and Lebanova H (2012) confirmed that the level of knowledge about generic medicines is a significant determinant of accept and use of generic medicines. From the other way, lack of information about generic medicines is an important barrier to use of generic medicines.

Specifically, Toklu (2012) studied the relationship between the level of knowledge and attitudes of community pharmacists, physicians, and patients towards generic medicines in Istanbul, Turkey. According to the result, if one is less educated, he/she may represent ease of acceptance for generic medicines. Moreover, the more highly educated individual will not accept generic substitution easily.

Thus, studies on the level of knowledge, except the Manohar, HD et. al (2015) showed that level of knowledge has a strong correlation with the attitude towards and/or perceived behavioral control.

In this study, the result has also confirmed that level of knowledge is one of the strong predictors of the attitude towards OTC products and perceived behavioral control.

5.2.4. Relationship of Price Consciousness with Attitude Towards OTC Products:

Even though, it is in limited number, but there are some studies that studied the relationship of the price of OTC products with attitude. There is only one study that directly aimed to reveal the relationship of price with attitude to buy OTC products. This study revealed that there is no relationship between price consciousness and attitude. Besides, there is another study that was aimed to study relationship between price consciousness and attitude to buy dietary supplements or organic foods. Wangcharoen et. al. (2013) showed that price has the less correlated with dietary supplement purchasing than product quality and product attractiveness and advertising. The acceptable price might be a variable of many factors since it was not highly related with any price consciousness by principal component analysis.

The current study examined the relationship between price consciousness and attitude. The results showed that the consumer's price consciousness has no relationship with attitude towards OTC products.

5.2.5. Relationship of Involvement in Purchase Decision with Perceived Behavioral Control on OTC Products:

Involvement in the purchase decision is a kind of rational factor, examined in some studies in different kind of topics.

There are some studies concentrating on the effect of Involvement in purchase decision on attitude directly about OTC market or other pharmaceuticals.

First one, Lee et al (2015) examined the influencing factors of consumers' attitude and behavior towards advertisement. The result showed that attitudinal outcomes of involvement with OTC drugs are significant.

The second one, Sujit S. Sansgiry et. al (2001) studied consumer involvement. The results of the study showed that if consumers are more involved in their purchase of OTC medications, they could understand information from the label and evaluate it more easily.

In contrast to the conclusions made in the previous, Gore, P et. al (1994) studied the involvement of consumer to nonprescription medicine. The result showed that nonprescription pharmaceutical purchase decisions have no correlation with the level of involvement. Some other studies had results to support that nonprescription pharmaceutical purchase decisions have no correlation with the level of involvement. (Madhavan, McClung and Riley 1994; Lumpkin, Lowrey, Strutton and Kouzi 1991, Timothy H, 1998)

In this study, contrary to the result of the studies (Madhavan, McClung and Riley 1994; Lumpkin, Lowrey, Strutton and Kouzi 1991, Timothy H, 1998) and consistent with previous two indicated study, Gore, P et. al (1994) confirmed the strong relationship between involvement in purchase decision and perceived behavioral control.

5.2.6. Relationship of Subjective Norm with Purchase intention of OTC Products:

Subjective Norm is one of the main independent variables of the model (Attitude toward product, Perceived Behavioral Control and Subjective Norms). Subjective norm was analyzed to show whether it is predictors of the dependent variable, purchase intention, or not.

There are some related studies to analyze the relationship of the subjective norm with purchase intention in OTC market.

Firstly, Lodorfos, GN et. al. (2006), studied the relationship of subjective norms on purchase intention as a context of consumer behavior on OTC products. According to the result, the subjective norm is associated with intention to repurchase OTCs.

Secondly, Svorc J et. al. (2012) studied the intention of consumers to buy medications on-line. The result showed the positive relationship between consumer subjective norm and the consumer's intention to purchase medicine via online services.

Thirdly, the study of Pande et. al. (2015) examined the relationship of consumer attitudes, beliefs and subjective norms with purchase behaviour when purchase personal care products. The result of this study also proved that the subjective norm is an important predictor of purchase intention.

Moreover, according to the result of the study (Barbaranelli, C et.al) on the purchase of the pharmaceutical products, online purchase intention results are positively highly correlated with the subjective norm.

According to the findings of Kim and Chung's (2011), the subjective norm is a key determinant of intention to purchase of skin care products. The study revealed that buyers of organic cosmetic products decide to purchase these products cosmetics according to the pressure of the important referents.

But there are some other studies that do not show any correlation between subjective norms and purchase intention. Myers and Horswill (2006) indicated that subjective norm has no relationship with of intention to purchase sun protection. And also some other studies in different research topics showed also that subjective norm is not a predictor of purchase intention.

According to the result of the study, the subjective norm is not a predictor of behavioral intention.

This insignificance might happen due to two reasons, which are the lack of perceived consequences and the nature of OTC product consumption being a private behavior, not a social behaviour. First, according to Melnyk et al. (2010), the subjective norm will influence behavior more significantly if consumers perceive that there will be

consequences (i.e. social exclusion or disapproval) involved. So, respondents might have perceived that there will not be any social consequences if they disobey the norm. Second, Melnyk et al. (2010) also stated that subjective norm will affect a public behavior (i.e. can be observed and noticed easily) more significantly than a private behavior (i.e. cannot be observed and noticed easily). Hence, respondents might not feel pressured to consume OTC products as their choice would not be easily observed by others.

5.2.7. Relationship of Attitude with Purchase intention of OTC Products:

The relationship between attitudes and purchase intentions has been discussed in the past research in the field of marketing. Previous studies examined the relationship between attitude and intention and found that it was positive (Chen & Li, 2007; Mukhtar & Butt, 2012; Tarkiainen & Sundqvist, 2005).

In the context of OTC products, Lodorfos, GN et. al. (2006), studied the relationship of attitude towards OTC products and purchase intention. According to the result, attitude has strong association with intention to purchase OTCs.

Similarly, Pande A.C. et. al. (2015) supported that the positive role of attitudes as a prime factor that lead consumers to purchases of personal care products.

In this study, attitudes toward OTC products become more positive as the intention to use medicines increases. The result of the study was in correlation with the TPB.

5.2.8. Relationship of Perceived Behavioral Control with Purchase intention of OTC Products

In the TPB, the construct of perceived behavioral control was added as a determinant of intention (Ajzen, 1991). Thus there are many studies that analyzed the relationship of perceived behavioral control with intention in many research context.

According to the results of this study, the relationship of perceived behavioral control with intention was confirmed. There are a number of studies that indicated the positive relationship of perceived behavioral control with intention. (Cafiero, 2013; Lee et al., 2010; McEachan et al., 2011).

At the opposite end, there is a limited number of studies that do not show perceived behavioral control as an important predictor of intention. For example, Barbaranelli C. et. al. (2015) examined psychological and sociodemographic variables that might influence the intention to purchase pharmaceuticals online. PBC did not show up as a significant determinant of intention.

Thus, attitude and behavioral control were significant determinants of purchase intention, but the subjective norm was not found as a significant determinant of purchase intention.

5.3. Conclusion

This study was conducted to explore the influencing factors on purchase intentions of OTC products. Specifically, the effects of consumers' personal factors and rational factors on the attitude and intention towards OTC products were examined by applying a model that was based on Ajzen's theory of planned behaviour.

The results of this research provide valuable insights for OTC products manufacturers, marketers, pharmacist, physicians, health authorities and as well the consumers.

Each part of the study has valuable impacts. First of all, even though in-depth interviews has been done mainly to form the infrastructure of the questionnaire for quantitative study. But, the interviews gave valuable insights. First, pharmacists indicated that even a consumer has a suggestion from others about any OTC products, even though they have a prescription in their hands, pharmacy consumer wants to ask the pharmacists to be convinced. Secondly, OTC Business Units of Pharmaceutical Companies have a similar management structure as FMCG business, e.g. Brand

Managers, Category Managers and Channel Managers. Thirdly, physicians are less likely to recommend OTC products if there is any real need for the case. But most of the time, patients are asking the physicians to recommend this kind of products. Thus, the main driver of the OTC usage is not the physician, but consumers can be called as main drivers of OTC product usage.

The focus group study revealed several factors, which affect the consumers' attitude towards OTC products. The study has shown that the some of the personal characteristics drive people to use more OTC products. These characteristics can be listed as, health conscious, self-confident, self-conscious, knowledgeable. The customer with such characteristics could be less reluctant to spend money, Anxiousness and being less risk averse. Almost all of the participants declared that the OTC market will grow, and more products will have OTC status in the coming years. Some said that OTC regulations have to be prepared to minimize any negative consequences. Most of them believe that OTC products should be sold only in pharmacies, because pharmacists are still one of the main advice sources on the purchase decision.

Furthermore, the survey indicated that health consciousness and level of knowledge of the consumers positively affect the consumers' attitude towards OTC products. Moreover, the level of knowledge and involvement in purchase decision have a positive relation with perceived behavioral control. In addition, attitude towards OTC products and perceived behavioral control have a direct positive effect on intention to purchase of OTC products.

5.4. Implications of the Study

This study provides some implications for OTC marketers and OTC manufacturers, pharmacists, physicians and health authorities and also theoretical implications for the academicians.

5.4.1. For OTC Manufacturers and OTC Marketers

The findings of the study suggest some valuable strategies for the OTC manufacturers and marketers. Firstly, the health consciousness is an important personal characteristic which creates a positive attitude towards OTC product. The OTC marketers should use this personal characteristics to profile and segment their target customers. When they set up product message, slogan, images and advertisement, they should emphasize the importance of healthy life and the way of being healthier etc. Due to the impact of health consciousness on the formation of attitudes, marketers should increase the awareness of healthier life and requirements. OTC marketers may support some social groups or events to impulse more messages on self-responsibility related to healthier life. For example, non-professional marathons- i.e. Avrasya Maratonu, Runtalya, RunforHealth. Moreover, parents are more conscious about their children's health. The marketers may support some events or platforms that generally families are participating. Marketers may consider to support public awareness for healthier life; fight for obesity, more physical activities for each day, and some other awareness activities.

Secondly, the level of knowledge is one of the main determinants of intention by effecting both attitudes and perceived behavioral control. OTC marketers should prepare an extensive source of knowledge about their products in all related platforms, digital media, visual media, printed media, social media and word of mouth etc. This knowledge should be easy to reach, easy to understand and easy to share. If the level of knowledge about a product increases, consumers feel more confident to purchase or not that product. Thus, the marketers should communicate the strength of the product in a clear way and put these sources of information to be easily accessible. As the results have showed, customers want to know, understand and decide what they choose. So, the marketers should have necessary actions to reach the customer and educate them about their products. These actions should be in a variety of ways, i.e. awareness programs for certain health condition, i.e., vitamin deficiency, microbiota, obesity, early wrinkle. OTC marketers should have strong action plans to use digital platforms in an effective way. According to latest survey of American Press Institute,

digital platforms (computer and smart phone-based) are the most important way to carry information to almost every other age segment. Thus, marketers have to give more importance to create successful strategies to reach customers from the digital platforms.

In this study, the results showed that level of knowledge has a strong impact on both attitude and behavioral control. OTC marketers should construct a strategy according to feed customer with product knowledge.

Even though, the subjective norm is one of the most important predictors of intention in the Theory of Planned Behavior. This study revealed that customers are not willing to be convinced by others. Customers want to be sure by themselves rather than referents' advice. This point is also an important insight for marketers. The OTC consumers feel as the main authority to be convinced. So, OTC marketers should organize activities to directly touch the customers. There is an important strategical implication for the marketers. Customers want to be at the center of the decision process. Unlike some health issues that need to be cared by an expert- physician-, OTC consumption is perceived as a self-care issue, thus, the consumer does not need any impact from others. In consumer behavior, customers may be convinced by others- i.e., experts, opinion leaders, celebrities, families and friends and even any other customer at the sales point, but OTC product consumption is perceived as a private decision that the person can make according to his/her level of knowledge, health consciousness etc. OTC marketers should have strong strategies to empower the customer to decide on purchasing. This strategy may be a loyalty program, customer follow-up programs, a platform to exchange customer experience etc. OTC manufacturers should have a strategy to create customer experience with sample size tester products.

Moreover, involvement in purchase decision is another significant determinant of perceived behavioral control. The marketers should make the patient the focus to sell their products. The customer wants to be involved in the purchase decision, so marketers should be very careful about patients' feedback. They may put more impact on customer service, online and offline. OTC manufacturers should give importance

to customer feedback in order to plan a pipeline for the future. The OTC companies should organize more events to meet customers' exact unmet needs, experiences, customer priorities, customer expectation and other dynamics of customer perspective. Customer surveys, focus group studies, in depth interviews and some other tools should be used effectively to have maximum feedback from customers. According to the results of the study, customer's involvement on purchase will have a great impact on behavioral control. The OTC customer wants to be authorized in his/her purchase decision. Thus, marketers and even manufacturers should have strategies to authorize customer when they purchase. For example, the label of OTC products should have simple, easily readable, understandable and comparable with available other products. There should be well-designed flyers and brochures in order to distribute product information. Customer can understand any kind of information about the products without the need to ask any expert- i.e. pharmacists and/or physician. The OTC manufacturers should implement some customer services such as easily accessible and user friendly call-centers or video repository for troubleshooting. In order to support the patients' involvement in the purchase decision, manufacturers should produce testers, or samples for the use of products to distribute.

There are some other implications for OTC marketers and manufacturers. Firstly, even in many of consumer studies, the price has an important impact on attitude formation, in OTC, in this study's model, price does not have any relationship with the formation of attitude. Thus, marketers and manufacturers should think that if they sell an OTC product, customer's priorities and sometimes barriers may be other than price. In the competitive OTC market environment, OTC marketers should overcome price completion with strong customer programs: educate the customer, make the customer aware about a healthier life, good customer service, customer involvement programs and so on.

Moreover, risk averseness is one of the key variables in some health issues and even in some consumer behavior issues. In this study, risk averseness has no relationship with attitude. This is a good implication for the marketers. OTC products can penetrate

easier due to less risky perception. The OTC manufacturers and marketers should take this into consideration to prepare a new product pipeline and launch new products.

5.4.2. For Pharmacists and Physicians

Pharmacists should be knowledgeable about OTC products. Even though, OTC customers show strong behavioral control to intent to purchase OTC products, customers want to ask pharmacists for information. Pharmacists should keep sources of information (i.e. brochures, flyers, booklet etc.) about the OTC products in the pharmacy to distribute to customers. Pharmacists should be updated about new products and latest knowledge about the products. Thus, pharmacists should regularly participate in scientific events, follow the pharmaceutical and OTC publications, and have regular visits from OTC companies.

Pharmacies are still the main point of sale for OTC products. Similar to OTC market, pharmacies have strong competition between them. Pharmacies should also take strategical implication from this study to serve to the OTC customers. Unlike the customer with prescription, OTC Customer needs to know and needs to be involved in the decision. Pharmacist should inform the customer clearly and should involve them in product selection. The design of the pharmacy is important to present products. Due to the importance of involvement and behavioral control of OTC consumer, pharmacy design should be appropriate for the consumer to investigate the products easily. There may be sitting corners for patients to read details about the products and compare with others. The pharmacists should give time to customers to share information and also to gather feedbacks after the usage.

There are some valuable insights to physicians, especially physicians who have private offices. Even though, the OTC customers feel that they themselves should be the main authority to buy or not the OTC products. But people still give importance to physicians' advice when they need. The OTC customers should be well-informed about the product. Thus, the physicians should have regular visits from sales representatives and medical team of OTC companies to refresh the knowledge about

the products. Physicians should participate in scientific events to discuss the newest information about the OTC products.

5.4.3. For Health Authorities

The result of Focus Group studies indicated that customer believes that even though OTC products are less risky than prescription drugs, still OTC products should also be sold in pharmacies, rather than retail market shelves. Because people generally need to ask pharmacists about the products as a source of information. Thus, health authorities should take account of this result. When a relevant OTC regulation is established, people will be more confident to buy OTC products from pharmacies, not from grocery shops. Another implication is that, customers want to be more involved in purchase decision, thus there needs to be relevant regulation to determine the borders of relationship between OTC companies and customers. For example, in prescription pharmaceuticals, any direct contact of marketers with patients is strictly forbidden. And also any kind of direct to customer advertisement is totally forbidden. But there is no restriction for the OTC products for the contact and there is a limited restriction for the advertisement of OTC products. For some OTC products, advertisement started to appear on TV channels, digital platforms and social media. Due to the dynamics of OTC products, OTC companies will have strategies to reach directly to OTC customer. As it is also implied in this study, need for involvement in purchase decision and need to increase level of knowledge are important for OTC consumer. The OTC companies' direct contact, direct to customer advertisement, customers services, loyalty programs and digital platform strategies needs to be regulated. It is obvious that this regulation could be less strict than prescribed drug market. But OTC products are still related to health, thus it should be considered more careful than any other unrelated consumer products

5.4.4. Theoretical implications

There was a research question as “*What are the factors that influence OTC consumers’ purchase intentions?*”

This study provided an answer to this research question. This could be considered as a theoretical contribution of this study to the previous research in the field of OTC product consumer behaviour. As it was discussed in the introduction, there are limited number of studies that were examined the consumer behavior in OTC products in Turkey. Therefore, this thesis contributed to the research area of OTC product marketing/consumer behavior in Turkey. Furthermore in this research, five main determinants are confirmed that have the influence on consumer purchase intention for OTC products. They are named as health consciousness, the level of consumer knowledge, consumer involvement in purchase decision, behavioral control of consumer and attitude towards purchase.

The main contribution of this study is that this is the pioneer attempt to apply a combination of these variables in a model based on Theory of Planned Behaviour in the OTC field. In the literature, the level of knowledge as a variable, was studied only in a relationship with attitude towards purchase. In this study, the level of knowledge was studied to find out whether it has a relationship with behavioral control or not.

Furthermore, one of the most important implications of this study is that TPB testing the model for purchase of OTC product was the firstly applied in the Turkish population.

In the literature, there were some contradictory findings regarding the factors affecting attitude towards OTC products. A list of variables divided the personal factors and rational factors. Personal factors are health consciousness and risk averseness, on the other hand, price consciousness, the level of knowledge and involvement in purchase decision variables are considered as rational factors. Even though some of the studies showed that risk averseness and price consciousness affect the attitude towards the

purchase, this study revealed no significant relationship between risk averseness and attitude and also no relationship between price consciousness and attitude.

In this study, the results contribute to support previous studies that subjective norm was not a significant determinant in health related intentions.

In this study, a model that was based on Theory of Planned Behavior was tested in the field of OTC products. The results indicated that attitude towards OTC products is a more effective predictor of the purchase intention than the social factors. In addition, the relationship between perceived behavioral control and intention regarding the OTC products was revealed as a second strong determinant of intention to purchase OTC products.

5.5. Limitations and Suggestions for Further Research

Although the result of this study provided many findings, these findings have some limitations which could be suggestions for further research. These limitations and suggestions were discussed below in details.

First of all, this study was cross-sectional in nature and therefore represented the relationships between the variables at a single point in time. Therefore, past or future relationships may not be generalized from this study. The further study can be designed to examine past experience and future prospects accordingly.

Second limitation is about a sampling of the study. Because the budget and time were limited, it was not possible to determine sampling according to probability sampling methods. This may affect the generalizability of the results. So, in the future research, probability sampling methods can be applied to increase the generalizability of the findings. In addition, size of sampling determined according to the suggestion of Hair et al (2010). It was suggested that there should be at least 500 respondents in the samples to analyze with SEM for complex models. For the future studies, statistical sampling can be applied for more generalizable results.

Third limitation was on the method of the survey. Online survey was used as a method. Even though, the online survey has the potential ease of response within a target population, some of them may have doubt to participate the survey because of their discomfort with online interactions. Besides, the study comparably was easier to reach target population and target number in a short time, but it was difficult to determine exactly who was really filled the survey however each participant was mandatory to enter an email. Thus, it resulted in uniqueness of each survey response. Also, in data duplicate entry of response from any email was deleted. So, reliability of data has been increased.

Another limitation is that this study was done only in single country, Turkey. For the future studies, in order to generalize the results and evaluate the cultural differences accurately, data from different countries with different cultural characteristics can be taken and analyzed.

Moreover, another limitation of the study regarding the sampling is the demographic characteristics of the data. The data mostly composed of the people who have undergraduate and upper education level (almost %85 of all the respondents). On the contrary, in Turkey just only %12 of the people have a degree of undergraduate and upper. Thus, for the future research, it should be done by random sampling and/or more heterogeneous sample selection according to some demographic characteristics, could be achieved.

This study only tested the effects of some personality and rational factors on attitude towards OTC products that are listed as vitamin, minerals, dietary supplement, herbal ingredients etc. There is a limitation of this study due to grouping of different kind of products in same study. It was sometimes hard for the participants to answer these different kind of products in only one context. For the future, the model of the study can be tested for each of the product segment.

Finally, this model is only tested for OTC products. However, consumers' attitude and intentions towards other products might be different. So further research may test or compare the model for other products types such as FMCG personal care products,

other health related purchases, i.e. aesthetics, diet& sport coaching, wellness purchases and other health products. Moreover, this model can be tested for the context other than health related topics as well.

6. REFERENCES:

- Ahmad Akram, Khan Umair Muhammad (2015). Evaluation of knowledge, attitude and practice about self-medication among rural and urban north indian population. *Indian Journal of Pharmaceutical and Clinical Research*, 7(5): 326–332
- Akçura, M.T., Gönül, F.F. and Petrova, E. (2004), “Consumer learning and brand valuation: an application on over-the-counter drugs”, *Marketing Science*, Vol. 23 No. 1, pp. 156-169
- Aker, J, Melissa Beck Sara Travis, Jennifer Harris (2014) *Consumer Navigation and Selection Behaviors for OTC Products in a Retail Setting*, *Concentrics Research*, 1-34.
- Anna Birna Almarsdottir (2000) “Over-the-counter use in Iceland: the impact of increased access”, *Scandinavian Journal of Public Health*, Volume 28, Issue 4 October 2000 pp 270 – 274
- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32, 665-683
- Ajzen, I. and Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, NJ, Prentice-Hall.
- Ajzen I. The Theory of Planned Behavior. *Organ Behav Hum Decis Process* 1991;50: 179-211.
- Ajzen I. From intentions to actions: a Theory of Planned Behavior. In: Kuhl J, Beckmann J (eds). *Action Control: From Cognition to Behavior*. Berlin: Springer Verlag, 1985, 11–39.
- Ajzen I. Theory of Planned Behavior home page. 2006. Available at: <http://www.people.umass.edu/aizen/tpb.html>. Accessed: 29 September 2006.

- Ajzen I. Attitudes, Personality and Behavior. 2nd edn. New York: Open University Press, 2005
- Alba, J. and J. W. Hutchinson, 2000. Knowledge calibration: what consumers know and what they think they know. *Journal of Consumer Research* 27(2): 123 -156.
- Albarracín, D., Johnson B, Fishbein Met al. Theories of reasoned action and planned behavior as models of condom use: a meta-analysis. *Psychol Bull* 2001; 127: 142–61.
- Alexander, GC; Mohajir N and Meltzer DO (2005). "Consumers' perceptions about risk of and access to nonprescription medications". *Journal of the American Pharmacists Association* 45 (3): 363–370.
- Aldoory, L. (2001). Making healthcommunications meaningful for women: Factors that influence involvement. *Journal of Public Relations Research*, 13(2), 163-185.
- Alford Bruce L., Abhijit Biswas (2002), The effects of discount level, price consciousness and sale proneness on consumers' price perception and behavioral intention, *Journal of Business Research*, 55, 775 – 783
- Allport, G. W. (1935). Attitudes. In C. M. Murchison (Ed.), *Handbook of Social Psychology*. Winchester, MA: Clark University Press.
- Aneblom, G., Larsson, M., Odland, V., Tyden, T. Knowledge. *BJOG*. 2002;109:155–160
- Armitage C, Conner M. Efficacy of the Theory of Planned Behaviour: a meta-analytic review. *Br J Soc Psychol*, 2001;40: 471–99.
- Arrow KJ. Uncertainty and the welfare economics of medical care. *The American Economic Review* 1963;53:941-73
- Anderson, E.W. (1996) Customer satisfaction and price tolerance. *Marketing Letters*, 7 (3)

- AIFD: Association of Research-Based Pharmaceutical Companies- TURKEY'S PHARMACEUTICAL SECTOR Vision 2023 report, released in 2013.
- Babar ZU, Stewart J, Reddy S, et al. An evaluation of consumers' knowledge, perceptions and attitudes regarding generic medicines in Auckland. *Pharm World Sci.* 2010;32(4):440–448.
- Baker DW. The meaning and the measure of health literacy. *J Intern Med* 2006;21:878–83.,
- Baron, R.A. and Byrne, D. (1987), *Social Psychology: Understanding Human Interaction*, 5th edition, Boston: Allyn & Bacon.
- Bandura A. *Self-efficacy: the exercise of control*. New York, WH Freeman, 1997.
- Basu, A., & Dutta, M. J. (2008). The relationship between health information seeking and community participation: The roles of health information orientation and efficacy. *Health Communication*, 23(1), 70-79.
- Bauer, R.A. (1960) Consumer Behavior as Risk Taking. In: Hancock, R.S., Ed., *Dynamic Marketing for a Changing World*, Proceedings of the 43rd. Conference of the American Marketing Association, 389-398.
- Beatty, S. E. and S. M. Smith (1987), "External Search Effort: An Investigation Across Several Product Categories," *Journal of Consumer Research*, 14 (June), 83-95.
- Bhaskaran, S., & Hardley, F. (2002). Buyers beliefs, attitudes and behaviour: foods with therapeutic claims. *Journal of Consumer Marketing*, 19, 591–606.
- Bissell, P., Ward, P.R. and Noyce, P.R. (2000), "Appropriateness measurement: application to advice-giving in community pharmacies", *Social Science & Medicine*, Vol. 51 No. 3, pp. 343-359.
- Bloch, P. (1984). The wellness movement: Imperatives for health care marketers. *Journal of Health Care Marketing*, 4(1), 9-16

- Bloch, Peter H., Daniel L. Sherrell, and Nancy M. Ridgway (1986), "Consumer Search: An Extended Framework," *Journal of Consumer Research*, 13, 119-126.
- Bohon LM et al. The Theory of Planned Behavior as It Predicts Potential Intention to Seek Mental Health Services for Depression Among College Students, *J Am Coll Health* 64 (8), 593-603. 2016 Jul 07
- Boone, I.E. and Kurtz, D.L. (2004), *Contemporary Marketing*, 11th Edition, Australia: Thomsom South-Western.
- Bourque, L. and Fielder, E., *How to Conduct Self Administered and Mail Surveys*, 2nd Edition, The Survey Kit, Sage Publications, 2003.
- Brabers, L. Van Dijk, M.L. Bouvy, et al. Where to buy OTC medications? A cross-sectional survey investigating consumers' confidence in over-the-counter (OTC) skills and their attitudes towards the availability of OTC painkillers, *BMJ Open*, 3 (2013), p. e003455
- Brass EP. Changing the status of drugs from prescription to over-the-counter availability. *N Engl J Med* 2001; 345(11): 810–6
- Burton, S., Lichtenstein, D.R., Netemeyer, R.G. and Garretson, J.A. (1998) "A scale for measuring attitude toward private label products and an examination of its psychological and behavioral correlates" *Academy of Marketing Science*. N°26, Vol. 4, p. 293-306.
- Buken NO, Yegenoglu S (2003) Physician-industry relationships and promotion ethics in Turkey. *Clinical Research and Regulatory Affairs*, 20:379-389.
- Burak, L. J. & Damico A. (2000) "Effects of direct-To-consumer advertising of pharmaceutical products on college students" *Journal of American College Health*, Volume 49, Number 6 / May 2001, pp 188-191
- Burns R.P. and R. Burns (2008), *Business Research Methods and Statistics Using SPSS*, Sage: Los Angeles

- Cafiero, M. (2013). Nurse practitioner's knowledge, experience, and intention to use health literacy strategies in clinical practice. *Journal of Health Communication* 18 (Supplement 1), 70 – 81.
- Calamusa A, Di Marzio A, Cristofani R, et al. Factors that influence Italian consumers' understanding of over-the-counter medicines and risk perception. *Patient Educ Couns* 2012;87:395–401
- Celsi, Richard L. and Jerry Olson (1988), "The Role of Involvement in Attention and Comprehension Processes, *Journal of Consumer Research* , 15 (September), 210-24.
- Chen, M.-F., & Li, H.-L. (2007). The Consumer's Attitude Toward Genetically Modified Foods in Taiwan. *Food Quality and Preference*, 18, 662–674. doi:10.1016/j.foodqual.2006.10.002
- Cinzia Panero & Luca Persico, Attitudes Toward and Use of Over-The-Counter Medications among Teenagers: Evidence from an Italian Study, *International Journal of Marketing Studies*; Vol. 8, No. 3; 2016 ISSN 1918-719X E-ISSN 1918-7203
- Colin P. Bradley & et al (1998) "Patients Attitude to over the counter drugs & possible professional response to self Medications" volume– 15, Oxford University Press, Pp.44-50.
- Conchar, M. P., Zinkhan, G. M., Peters, C., & Olavarrieta, S. (2004). An integrated framework for the conceptualization of consumers' perceived-risk processing. *Journal of the Academy of Marketing Science*, 32(4), 418-436.
- Conner, M., and Norman, P. (Eds.) (2005). *Predicting Health Behaviour: Research and Practice With Social Cognition Models*, 2nd Ed. Maidenhead: Open University Press.
- Conner, S. R. ; Lee, J. T. ; Carey, J. ; Bailey, C.A., 2001. Nutrient characterization of guar meal fractions. *Poult. Sci.*, 80 (Suppl. 1): 50.

- Delorme, D., Huh, J., Reid, L.N. and An, S. (2010), "The state of public research on over-the-counter drug advertising", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 4 No. 3, pp. 208-31.
- Dholakia, U.M. "A Motivational Process Model of Purchase involvement and Consumer Risk Perception," *European Journal of Marketing* (35:11/12), 2001, pp. 1340-1360.
- Dibya Sharma, Durga Gurung, Ramchandra Kafle and Sakun Singh, Knowledge and practice on over-the-counter drugs among adults of age group 20 and above residing in Chapapani-12, Pokhara, Kaski, Nepal, *International Journal of Scientific Reports*, *Int J Sci Rep.* 2017 Mar;3(3):79-86
- Divine, R. L., & Lepisto, L. (2005). Analysis of the healthy lifestyle consumer. *The Journal of Consumer Marketing*, 22(5), 275-583.
- Donald L. Sullivan, Stephen W. Bridwell, Sujan N. Kulukarlam (1994) "An Assessment of consumer purchasing behavior for private label Vs Brand name OTC products in chain pharmacies." *Journal of Pharmaceutical Marketing and management* vol 8. pp. 85 to 108
- Dutta-Bergman, M. J. (2006). A formative approach to strategic message targeting through soap operas: Using selective processing theories. *Health Communication*, 19(1), 11-18.
- Dutta, M. J., & Feng, H. (2007). Health orientation and disease state as predictors of online health support group use. *Health Communication*, 22(2), 181-189.
- Dutta-Bergman, M. J. (2004). An alternative approach to social capital: Exploring the linkage between health consciousness and community participation. *Health Communication*, 16(4), 393-409.
- Dutta-Bergman, M. J. (2006). A formative approach to strategic message targeting through soap operas: Using selective processing theories. *Health Communication*, 19(1), 11-18.

- Dutta, M. J. (2007). Health information processing from television: The role of health orientation. *Health Communication, 21*(1), 1-9.
- Dutta-Bergman, M. J. (2005). Developing a profile of consumer intention to seek out additional information beyond a doctor: The role of communicative and motivation variables. *Health Communication, 17*(1), 1-16.
- Dutta, M.J., Bodie, G.D., & Basu, A. (2008). Health disparity and the racial divide among the nation's youth: Internet as a site for change? In A. Everett (Ed.), *Learning race and ethnicity: Youth and digital media* (pp. 175-198). The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning. Cambridge, MA: The MIT Press.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt Brace Jovanovich.
- Ergin EA, Ozsacmaci B (2011) Turkish consumers' perceptions and consumption of organic foods. *Afr J Bus Manag 5*(3):910–914. doi:10.5897/AJBM10.638
- Eric P. Brass, "Changing the status of drugs from prescription to over the counter availability"-*New England J. Medicine*, Vol: 345, No.11, Sept13, 2001.
- Erin Willis, Marla Royne Stafford, (2016) "Health consciousness or familiarity with supplement advertising: What drives attitudes toward dietary supplements?", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 10 Issue: 2, pp.130-147, doi: 10.1108/IJPHM-06-2015-0026
- Finch, H., & Lewis, J. (2003). Focus Groups. In J. Ritchie & J. Lewis (Eds.), *Qualitative research practice: A guide for social science students and researchers* (pp. 170–198). London: Sage Publications Ltd.
- Fishbein, A. and Ajzen, I. (1975), *Belief, Attitude Intention, and Behavior: An Introduction to Theory and Research*, Reading, MA: Addison Wesley Publishing.

- Fishbein, M. & Ajzen, I. (2010). *Predicting and changing behavior: The reasoned action approach*. New York, NY: Psychology Press, Taylor & Francis Group.
- Fisher CM, Corrigan OI, Henman MC. A study of community pharmacy practice: 3. Non-prescribed medicines sales and counseling. *J Soc Admin Pharm* 1991; 8: 69-75.
- Furnham, A., & Forey, J. (1994). The attitudes behaviors and beliefs of patients of conventional vs. complementary (alternative) medicine. *Journal of Clinical Psychology*, 50(3), 458-469.
- Ghosh A, Biswas, Mondal K, Haldar M, Biswas S. Study on knowledge and practices of over the counter medications among 2nd year medical students. *World J Pharma Pharmaceu Sci*. 2015;4(7):1074-81.
- Godin G, Kok G. The theory of planned behavior: a review of its applications to health-related behaviors. *Sci Health Prom* 1996;11: 87-98.
- Gore P and Madhavan S. Credibility of the sources of information for non-prescription medicines. *J Soc Admin Pharm* 1993; 10: 109-122.
- Gore, Prasanna, Suresh Madhavan, Gordon McClung, and David Riley (1994), "Consumers Involvement in Nonprescription Medicine Purchase Decisions," *Journal of Health Care Marketing*, 14(2), 16-22.
- Gould, S. J. (1988). Consumer attitudes toward health and health care: A differential perspective. *Journal of Consumer Affairs*, 22(1), 96-118.
- Gould, S. J. (1990). Health consciousness and health behavior: the application of a new health consciousness scale. *American Journal of Preventive Medicine*, 6(4), 228-237.
- Gönül, F.F. (1999), "Estimating price expectations in the OTC medicine market: an application of dynamic stochastic discrete choice models to scanner data", *Journal of Econometrics*, Vol. 89 No. 1, pp. 41-56.

- Grahn, J. L. 1979. Consumer information processing of OTC drug label information. *Advances in Consumer Research*, 7: 633–638.
- Grewal, D., Levy, M., Mehrotra, A. and Sharma, A. (1999), “Planning merchandising decisions to account for regional and product assortment differences”, *Journal of Retailing*, Vol. 75 No. 3, pp. 405-424.
- Guido G., C. Amatulli, A.M. Peluso (2014) Context effects on older Consumers’ cognitive age: The role of hedonic versus utilitarian goals, *Psychology and Marketing*, 31 (2014), pp. 103–114
- Gulpinar, G. And Ozcelikay, G. (2014) OTC Drug Regulations in Turkey: The Opinions of Community Pharmacists and Drug Industry
- Gunay G.N. & Baker M.J. 2011. The factors influencing consumers’ behaviour on wine consumption in the Turkish wine market. *EuroMed Journal of Business*, (6)3: 324-341.
- Gyaneshwar, SK., (2016), "The impact of mobile marketing initiatives on customers’ attitudes and behavioural outcomes", *Journal of Research in Interactive Marketing*, Vol. 10 Iss 3 pp.23
- Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate Data Analysis*. Seventh Edition. Prentice Hall, Upper Saddle River, New Jersey.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis*. Upper Saddle River, NJ: Prentice Hall
- Hanna L, Hughes C. Public’s views on making decisions about over-the-counter medication and their attitudes towards evidence of effectiveness: a cross-sectional questionnaire study. *Patient Educ Couns* 2011;83:345–51
- Hassali MA, Kong D, Stewart K. Generic medicines: perceptions of consumers in Melbourne, Australia. *Int J Pharm Pract*. 2005;13(4): 257–264.
- Hasitha Diana Manohar and Hansa Lysander Manohar Impact of Knowledge and Attitude on Practices of Over the Counter Medications Proceedings of the 2015

International Conference on Operations Excellence and Service Engineering
Orlando, Florida, USA, September 10-11, 2015

Hawkins, D.I., Best, R.J., and Coney, KA (2001), *Consumer Behavior: Building Marketing Strategy*, Boston: Irwin McGraw-Hill.

Hawkins, D.I., R.J. Best, and K.A. Coney (1986), *Consumer Behavior* (3rd ed.), Plano, TX: Business Publications, Inc.

Hee Yeon Kim, Jae-Eun Chung, (2011) "Consumer purchase intention for organic personal care products", *Journal of Consumer Marketing*, Vol. 28 Iss: 1, pp.40 – 47

Hollis Ashman (2008) "Consumers choice for OTC drugs & supplements in the health care arena", *Journal of Medical Marketing*, Vol.8, pp 49-67

Hollis Ashman, John Himmelstein, Dorothy Minkus-McKenna, Samuel Rabino and Howard R. Moskowitz, *Consumer choice for over-the-counter drugs and supplements in the health care arena* ESOMAR, Global Healthcare, Paris, February 2004

Holst, Anne; Iversen, Julie Maria ((Frederiksberg, 2011)) An application of a revised theory of planned behavior. Predicting the intention to use personal care products without endocrine disrupting chemicals

Hong, S.H., Spadaro, D., West, D. and Tak, S.H. (2005), "Patient valuation of pharmacist services for self care with OTC medications", *Journal of Clinical Pharmacy & Therapeutics*, Vol. 30 No. 3, pp. 193-199.

Hooper D., Coughlan J., Mullen M. R. (2008). *Structural equation modeling: Guidelines for determining model fit*. *Electronic Journal of Business Research Methods*, 6(1), 53–60.

Huang, J. H., Lee, B. C., & Ho, S. H. (2004). *Consumer attitude toward gray market goods*. *International Marketing Review*, 21(6), 598-614.

- Huh, J., Delorme, D. E., & Reid, L. N. (2016). A model of consumer response to over-the-counter drug advertising: Antecedents and influencing factors. *Journal of Health Communication*, 21 (1), 109–117
- Hughes L et al -“Patients' knowledge and perceptions of the side-effects of OTC medication” *Journal of Clinical Pharmacy and Therapeutics* Volume 27, Issue 4, pages 243–248, August 2002
- Irianto, H., *International Journal of Management, Economics and Social Sciences* 2015, Vol. 4(1), pp.17 – 31. ISSN 2304 – 1366)
- Ismail S and S. S. M. Mokhtar (2015) Moderating effect of perceived risk on the relationship between product safety and intention, *Management Science Letters* 5 page. 205–212
- ISMP 2007 survey on HIGH-ALERT medications. Differences between nursing and pharmacy perspectives still prevalent www.ismp.org/survey/Survey200702W.asp
- Itterman RD, Johnson JA, Taylor JG. Health status and self-medication patterns in Alberta, Canada– Results from a population health survey. *J Soc Admin Pharm* 2003; 20: 43-52.
- Iversen, A. C., & Kraft, P. (2006). Does socio-economic status and health consciousness influence how women respond to health related messages in media? *Health Education Research*, 21 (5), 601-610.
- Jacoby and Kaplan (1972) The components of perceived risk. *Proceedings of the Third Annual Conference*, Ann Arbor, MI, Association for Consumer Research.
- Janiszewski, C. and Lichtenstein, D.R. (1999), “A range theory account of price perception”, *Journal of Consumer Research*, Vol. 25, March, 353-68.
- Jayanti, R. K., & Burns, A. C. (1998). The antecedents of preventive health care behavior: An empirical study. *Academy of Marketing Science*, 26(1), 9-15.

- Johnson KA, Parker JP, McCombs JS, Cody M. The Kaiser permanents/USC patient consultation study: Patient satisfaction with pharmaceutical services. *Am J Health Syst Pharm* 1998; 55: 2621-9.
- Johnson RE and Pope CR. Health status and social factors in nonprescribed drug use. *Med Care* 1983; 21: 225-33.
- Jisu Huh Wonsun Shin, (2015)," Consumer responses to pharmaceutical-company-sponsored disease information websites and DTC branded websites", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 9 Iss 4 pp. 306 – 329
- Kamath, Kavita- -"Consumer Behavior towards Consuming Medicines without Prescription in Pune City – An Empirical analysis."- *International Journal in Management and Social Science*, Vol.03 Issue-02, (February, 2015) ISSN: 2321-1784
- Kanthe, Rajesh Uttam- -"Self-Medication, Doctor and Marketing of OTC Products."- *ASIAN JOURNAL OF MANAGEMENT RESEARCH*, 2010- pages: 229-238 ISSN 2229 – 3795
- Katz, A. (2007), "Pharmaceutical lemons: innovation and regulation in the drug industry", *Michigan Telecommunications and Technology Law Review*, Vol. 14 No. 1, pp. 1-41.
- Kaynak, E., & Kucukemiroglu, O. (2001). A Comparative Study of Family Decision Making in US and Turkish Households by Correspondence Analysis. *Journal of Targeting, Measurement and Analysis for Marketing*, 9(3), 254-269.
- Kirgiz, Ayca Can--"THE CURRENT CONDITION OF THE OTC MARKET IN TURKEY, AND SOLUTION PROPOSALS FOR DEBATES ON ITS DIRECT INTRODUCTION TO CONSUMERS"- *International Journal of Economics, Commerce and Management*, Vol. II, Issue 3, 2014 ISSN 2348 0386.

- Kisa, S “Factors that influence prescribing decisions among Turkish physicians”
Clinical Research and Regulatory Affairs, 2006
- Kline, R. B. (2016). Principles and practice of structural equation modeling. 4th ed.
Guilford publications: New York
- Koc, B, Determining Consumers’ Preferences for Energy Drinks Consumption with
Conjoint Analysis: A Cross Section Study from East Mediterranean, Turkey’ J
Nutr Food Sci 2014, 4:6
- Kontogiorgis, C., Nena, E., Berberoglou, E. et al. (2016) Estimating Consumers’
Knowledge and Attitudes Towards Over-The-Counter Analgesic Medication
in Greece in the Years of Financial Crisis: The Case of Paracetamol Pain and
Therapy, June 2016, Volume 5, Issue 1, pp 19–28.
- Kontogiorgis, Christos et al. “Estimating Consumers’ Knowledge and Attitudes
Towards Over The-Counter Analgesic Medication in Greece in the Years of
Financial Crisis: The Case of Paracetamol.” *Pain and Therapy* 5.1 (2016): 19–
28. *PMC*. Web. 30 Apr. 2017
- Kotler, P. and Armstrong, G. (2004)., Principles of marketing. United States of
America:Pearson Education.
- Kraft, F. B., & Goodell, P. W. (1993). Identifying the health conscious consumer.
Journal of Health Care Marketing, 13 (3), 18-25.
- Kujala, Jouni and Michael D. Johnson. 1993. “Price Knowledge and Search Behavior
for Habitual, Low Involvement Food Purchases”. *Journal of Economic
Psychology* 14 (2): 249-
- Krech, D., Crutchfield, R.S., and Ballachey, E.L. (1962). *Individual in society*, NY:
McGraw Hill
- Kumar, Rajendra (2008), *Research Methodology*, APH Publishing: New Delhi

- Laturkar, Vani Nikhil (2015) Consumer Behaviour Towards Over-the-Counter Herbal Products in India, The 21st Century Consumers: A Behavioural Perspective, Publish by Global Vision Publishing House
- Lebanova H, Manolov D, Getov I. Patients' attitudes about generics – Bulgarian perspective. *Marmara Pharm J.* 2012;16:36–40.
- Lee, B. C. (2012). The determinants of consumer attitude toward service innovation—the evidence of ETC system in Taiwan. *Journal of Services Marketing*, 26(1), 9-19.
- Lee, B. C. Y. (2007). Consumer attitude toward virtual stores and its correlates. *Journal of Retailing and Consumer Services*, 14(3), 182-191.
- Lee, H., Herr P, Kardes F., & Kim, C. (1999). Motivated search effects of choice accountability, issue involvement, and prior knowledge on information acquisition and use. *Journal of Business Research*, 45(1), 75-88.
- Lee, S. H. (2005). An application of a five stage consumer behaviour decision making model: an exploratory study of chinese purchasing of imported health good. Burnaby, B.C. Canada: Simon Fraser University.
- Lee, J. L., Cerreto, F. A., & Lee, J. (2010). Theory of Planned Behavior and teachers' decisions regarding use of educational technology. *Educational Technology and Society* 13(1), 152-164.
- Lee, M., King, K. W., & Reid, L. N. (2015). Factors influencing consumers' attitudinal and behavioral responses to direct-to-consumer and over-the counter drug advertising. *Journal of Health Communication*, 20, 431–444. doi:10.1080/10810730.2014.965367
- Lefterova A, Getov I. Study on consumers' preferences and habits for over-the-counter analgesics use. *Cent Eur J Public Health* 2004;12:43-5.

- Ling, D.C., Berndt, E.R. and Kyle, M.K. (2002), "Deregulation of direct-to-consumer marketing of prescription drugs: effects on prescription and over-the-counter product sales", *Journal of Law and Economics*, Vol. 45 No. 2, pp. 691-723.
- Lichtenstein, D.R., Ridgway, N.M. and Netemeyer, R.G. (1993), "Price perceptions and consumer shopping behavior: a field study", *Journal of Marketing Research*, Vol. 30, May, pp.234-45.
- Lichtenstein, Donald R., Bloch, Peter H., and Black, William C., "Correlates of Price Acceptability", *Journal of Consumer Research*, Vol. 15 (September), 1988, 243-52
- Lightner, N. J., Yenisey, M. M., & Ozok, A. A. (2002). Shopping behaviour and preferences in e-commerce of Turkish and American University students: Implications from cross-cultural design. *Behaviour & Information Technology*, 21, 373–385.
- Ling, D.C., Berndt, E.R. and Kyle, M.K. (2002), "Deregulation of direct-to-consumer marketing of prescription drugs: effects on prescription and over-the-counter product sales", *Journal of Law and Economics*, Vol. 45 No. 2, pp. 691-723.
- Lodorfos, G.N., Mulvana, K.L., Temperley, J.: Consumer behaviour: experience, price, trust and subjective norms in the OTC pharmaceutical market. *Innovative Mark.* 3, 41–66 (2006)
- Loken B., C. Joiner, J. Peck, Category attitude measures: Exemplars as inputs, *Journal of Consumer Psychology*, 12 (2002), pp. 149–161
- Lostakova, H., Curdova M., Pecinova, Z., Consulting Services - an Important Part of Providing Customer Value in E-commerce with Pharmaceutical Products: Customer Perspective. Proceedings of the 4th World Multiconference on Applied Economics, Business and Development (AEBD '12), 1st July – 3rd July. 2012, Porto, Portugal. 2012, WSEAS Press, pp. 128 – 133.

- Loudon, D. L., Della Bitta, A. J. (1993). *Consumer behavior: Concepts and applications/ Loudon, D. L., Della Bitta, A. J., 4th ed. New York: McGraw-Hill.*
- Lueg, Jason E., Robert S. Moore, and Merrill Warkentin (2003), "Patient Health Information Search: An Exploratory Model of Web-Based Search Behavior," *Journal of End User Computing*, 15(4), 49-61.
- Mariano A. Lechuga-Besné, Angélica Riveros-Rosas, and Juan José Sánchez-Sosa (2009) Risk perception of the self-prescribed use of Overthe Counter (OTC) cold/flu medications, *International Journal of Clinical and Health Psychology*, Vol. 9, N° 1, pp.73-88
- Matea Matic and Barbara Puh: Consumers' purchase intentions towards natural cosmetics (2015) *ECONVIEWS BR.* 1/2016. str. 53-64
- Malhotra, N. K. (2010). *Marketing research: An applied orientation*, 6th ed. New Jersey: Pearson Education.
- Malhotra, Naresh K.and Birks, David F. (2008) *Marketing research: an applied approach - 3rd European ed., - Harlow: Financial Times Prentice Hall.*
- March, J. G., & Shapira, Z. (1987). Managerial perspectives on risk and risk taking. *Management science*, 33(11), 1404-1418.
- Mayyada Wazaify & et al (2005) "Societal Perspective on OTC medicines Family practice – an international prospective." *Journal- Oxford University Press*, P.P. no. 170-176.
- McEachan R. R. C, Conner M, Taylor N. J, Lawton R. J. Prospective prediction of health related behaviours with the theory of planned behaviour: A meta-analysis. *Health Psychology Review*. 2011;5(2):97–144.
- Melnyk BM et al. Creating opportunities for parent empowerment program effects on the mental health/coping outcomes of critically ill young children and their mothers. *Pediatrics*, 2004, 113(6):e597–607.

- Melnyk, V., van Herpen, E., & van Trijp, H. (2010). Determinants of the Influence of Social Norms on Consumer Behavior: A Meta-Analysis.
- Michaelidou, N., & Hassan, L. M. (2008). The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *International Journal of Consumer Studies*, 32(1), 163-170.
- Michaelidou, N., Siamagka, N.T. and Christodoulides, G. (2011). "Usage, Barriers and Measurement of Social Media Marketing: An Exploratory Investigation of Small and Medium B2B Brands". *Industrial Marketing Management*. 40(7), 1153-1159.
- Mihaela-Roxana, I., & Yoon, C. C. (2010). Analyzing the effects of product label message on consumers' attitude and intention. *Journal of Business & Economic Research*, 8(11), 125-136.
- Mina Lee, Karen King and Leonard N. Reid, March 2015, Factors Influencing Consumers' Attitudinal and Behavioral Responses to Direct-To-Consumer and Over-the-Counter Drug Advertising, *Journal of Health Communication* 20(4):1-14 .
- Mintzes B, Barer ML, Kravitz RL, Kazanjian A, Bassett K, Lexchin J, et al. Influence of direct to consumer pharmaceutical advertising and patients' requests on prescribing decisions: two site cross sectional survey. *BMJ* 2002;324:278-9.
- Mittal , B . and Lee , M . (1988) Separating BrandChoice Involvement from Product Involvement via Consumer Involvement Profiles . In: M.J. Houston(ed.) *Advance in Consumer Research Provo, UT, Association for Consumer Research , Vol. 15, No. 1, pp. 43 – 49 .*
- Mitchell, Andrew A. (1979), "Involvement: A Potentially Important Mediator of Consumer Behavior," in *Advances in Consumer Research*, Vol. 6, ed. W. L. Wilkie, Ann Arbor: Association for Consumer Research, 191-196.

- Mitchell, Andrew A. and Peter F. Dacin (1996), "The Assessment of Alternative Measures of Consumer Expertise," *Journal of Consumer Research*, 23 (December), 219–24
- Mo, P. K. H. & Mak, W. W. S. (2009). Help-seeking for mental health problems among Chinese: The application and extension of the theory of planned behavior. *Social Psychiatry*, 44, 675–684.
- Mollahosseini, A., Karbasi, B.J.,Sadeghi, Z. (2012). Investigating the Influential Factors on Purchase Intention the 'Gray Market' Goods in South-East of Iran.*International Business and Management*. 4 (1), pp.48-56
- Moorman, C., & Matulich, E. (1993). A model of consumers' preventive health behaviors: The role of health motivation and health ability. *Journal of Consumer Research*, 20(2), 208-228.
- Monroe, K. B., & Petroschius, S. M. (1981). Buyers' perceptions of price: An update of the evidence. *Perspectives in consumer behavior*, 3(23), 42.
- Moschis, George P. and Scott Friend, "Segmenting the Preferences and Usage Patterns of the Mature Consumer Health-Care Market," *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 2(1), (2008), 7-21.
- Mukhtar, A., & Butt, M. M. (2012). Intention to Choose Halal products: The Role of Religiosity. *Journal of Islamic Marketing*, 3(2), 108–120. doi:10.1108/1759083121123251
- Mutlu N 2007. Consumer Attitude and Behavior Towards Organic Food: Cross-cultural Study of Turkey and Germany. Master Thesis. Institute for Agricultural Policy and Market, Stuttgart, Hohenheim.
- Myriam Hunink, M.G.; Weinstein, M.C.; Wittenberg, E.; Drummond, M.F.; Pliskin, J.S.;
- Nahri U, Helakorpi S. Sources of medicine information in Finland. *Health Policy* 2007;84:517.

- Narayanan, S., Manchanda, P. and Chintagunta, P.K. (2005), "Temporal differences in the role of marketing communication in new product categories", *Journal of Marketing Research*, Vol. 43 No. 3, pp. 278-290.
- Naymansoy, G (2010). Osmanlı'dan Günümüze Eczacının Değişen Konumu. (151-163). *Osmanlı Bilim Araştırmaları*, Cilt:12, Sayı:1, Ankara.
- Nielsen and IMS, *Understanding Trust in OTC Medicines: Consumer and Healthcare Provider Perspectives*, on behalf of the Consumer Healthcare Products Association (2013) *Understanding Trust in OTC Medicines: Consumer and Healthcare Provider Perspectives*
- Nikita N (2015). The Impact of Attitude, Subjective Norm, Perceived Behavioral Control, Trust, Perceived Benefit and Perceived Risk toward KlikBCA Usage Intention in Surabaya, *iBuss Management* Vol.3, No. 2(2015),295-303
- Nolen-Hoeksema S, Stice E, Wade E, Bohon C. Reciprocal relations between rumination and bulimic, substance abuse, and depressive symptoms in female adolescents. *Journal of Abnormal Psychology*. 2007;116:198–207.
- Nguyen P. (2014a) Relationship between Past Use and Medicating Intention within the Theory of Planned Behavior: A Case of Non-prescription Anthelmintic Medications in Vietnam, *Review of Integrative Business and Economics Research* Vol 1(1), 385-402
- Nguyen, P. (2012b) Vietnamese Consumer Behavior toward Children's Over-the-counter Medications: A Reasoned Action Approach, Page 89 *Journal of International Business Research*, Volume 11, Special Issue, Number 3, 2012
- O'connor E.L., K.M. White Willingness to trial functional foods and vitamin supplements: the role of attitudes, subjective norms, and dread of risks *Food Quality and Preference*, 21 (2010), pp. 75–81
- Official gazette of the republic of Turkey. Regulation on the classification of human medicinal products. Dated: 17.02.2005- Issue No: 25730. Available at:

[<http://www.resmigazete.gov.tr/main.aspx?home=http://www.resmigazete.gov.tr/eskiler/200/02/20050217.htm&main=http://www.resmigazete.gov.tr/eskiler/2005/02/20050217.htm>].

Official gazette of the republic of Turkey. Pharmaceuticals and medical preparations law. Dated: 26.5.1928 Issue No: 898. Available at: [<http://www.ikev.org/pdfler/IspenciyariTibbiMustahzarlarKanunu-26-05-1928.pdf>].

Official gazette of the republic of Turkey. Regulation on promotional activities of medicinal products for human use. Dated: 26.08.2011. Issue No: 28037. Available at: [<http://www.resmigazete.gov.tr/main.aspx?home=http://www.resmigazete.gov.tr/eskiler/2011/08/20110826.htm&main=http://www.resmigazete.gov.tr/eskiler/2011/08/20110826.htm>].

Official gazette of the republic of Turkey. Radio and television law. Dated: 03.03.2011. Issue No: 27863. Available at: [<http://www.resmigazete.gov.tr/main.aspx?home=http://www.resmigazete.gov.tr/eskiler/2011/03/20110303.htm&main=http://www.resmigazete.gov.tr/eskiler/2011/03/20110303.htm>]

Ooi, Say Keat (2009) Factors Influencing Consumer Purchase Intention Of Dietary Supplement Products In Penang Island. Masters thesis, Universiti Sains Malaysia. Paddison A and Olsen K. Painkiller purchasing in the UK. An exploratory study of information. *International Journal of Pharmaceutical and Healthcare Marketing* 2008; 2(4):284–306

Pahwa, Rakesh Archana Sharma, Pinky Sharma and Prabodh Chander Sharma:<http://www.pharmabiz.com/article/detnews.asp?articleid=42883§ionid=46>

Park, C. W. and Banwari Mittal (1985), "A Theory of Involvement in Consumer Behavior: Problems and Issues," in J. N. Sheth (ed.), *Research in Consumer Behavior*, I, JAI Press, Greenwich, CT, 201-232.

- Pande, A.C. and Soodan, V. (2015), "Role of consumer attitudes, beliefs and subjective norms as predictors of purchase behaviour: a study on personal care purchases", *The Business & Management Review*, Vol. 5 No. 4, pp. 284-291.
- Patricia, J. Bush and David L. Rabin. Who is Using Non-prescribed Medicines in Albert I. Wertheimer, Mickey C. Smith, editors. *Pharmacy Practice, Social and Behavioural Aspects*, third edition 1989, Williams and Wilkins publishing, USA
- Payne, K et al. -"Role of consumer attributes in predicting the impact of medicines deregulation on National Health Service prescribing in the United Kingdom."- *international Journal of Pharmacy Practice* Volume 6, Issue 3, pages 150–158, September 1998
- Peter, J. P., & Ryan, M. J. (1976). An investigation of perceived risk at the brand level. *Journal of marketing research*, 184-188.
- Peter, P. J., Olson, J. C. (1999). *Consumer Behavior and Marketing Strategy*. Sixth Edition. Boston: McGraw-Hill.
- Petty, R.E., and Cacioppo, J.T., 1981. Issue involvement as a moderator of the effects on Attitude of advertising content and context. In: Monroe, K.B. (Ed.), *Advances in Consumer Research* 8, Provo UT: Association for Consumer Research, pp. 20-24.
- Petty, R.E., Wegener, D.T. and Fabrigar, L.R. (1997), "Attitudes and Attitude Change," *Annual Review of Psychology*, (48), 609 - 38.
- Pineles LL, Parente R (2012) Using the theory of planned behavior to predict self-medication with over-the-counter analgesics. *Journal of Health Psychology* 18(12): 1540–1549.
- Piron, F. (1991). Defining Impulse Purchasing. *Advances in Consumer Research*, 18, 509-514.
- Pujari M. Neelkanth, K Sachan Anupam, Gupta Deepika. Indian consumer's buying behavior and perception to herbal drugs: a report - *Intl J Progr Pharmacy*, 2015

- Quintal C, Mendes P. Underuse of generic medicines in Portugal: an empirical study on the perceptions and attitudes of patients and pharmacists. *Health Policy*. 2012;104(1):61–68.
- Rabin DL. Use of medicines: A review of prescribed and non-prescribed medicineuse. *Med Care Rev* 1972; 29: 668-99.
- Richins, M.L., Bloch, P.H.,1986. After the new wears off: the temporal context of product involvement. *Journal of Consumer Research*, 3 (September), 280-285.
- Rook, D. W. (1987). The Buying Impulse. *Journal of Consumer Research*, 14(2), 189-197.
- Rosenberg, M. J. and Hovland, C. I. (1960), Cognitive, Affective, and Behavioral Components of Attitudes, in C. I. Hovland and M. J. Rosenberg (eds), *Attitude Organization and Change: An Analysis of Consistency among Attitude Components*, pp.1-14, New Haven, CT: Yale University Press.
- Rutter P. (2015). Role of community pharmacists in patients' self-care and self-medication. 24 June 2015 Volume 2015:4 Pages 57—65
- Salehudin, B.A. Luthfi, Marketing Impact of Halal Labeling toward Indonesian Muslim Consumer's Behavioral Intention Based on Ajzen's Planned Behavior Theory: Policy Capturing Studies on Five Different Product Categories *Asean Marketing Journal.*, 3 (1) (2011), pp. 35-44.
- Sansgiry, Sujit S. and Paul S. Cady (1996), “How the Elderly and Young Adults Differ in the Decision Making Process of Nonprescription Medication Purchases,” *Health Marketing Quarterly*, 14(1), 3-21.
- Sansgiry SS &Cady PS Sansgiry S. Consumer involvement: effects on information processing from over-the-counter medication labels. *Health Mark Q* 2001;19:61–78.
- Sanlier N. “Evaluation of food purchasing behaviour of consumers from supermarkets”. *British Food Journal* Vol. 112 No. 2, 2010 pp. 140-150. 2010

- Saunders, M., Lewis, P. & Thornhill, A. (2009) *Research methods for business students* 4th edn, Prentice Hall, London.
- Schiffman, Leon G. and Kanuk, Leslie L. (2003), *Consumer Behavior*, 8th edition, Prentice Hall.
- Schomerus, G., Matschinger, H. & Angermeyer, M. C. (2009) Attitudes that determine willingness to seek psychiatric help for depression: A representative population survey applying Theory of Planned Behaviour. *Psychological Medicine*, 39, 1855-1865.
- Semin S., Guldal D., Ozcaker N., Mevsim V. What Patients Think about Promotional Activities of Pharmaceutical Companies in Turkey. *Pharmacy World & Science*. 2006;28(4):199–206.
- Shilbayeh SA. Exploring knowledge and attitudes towards counselling about vitamin supplements in jordanian community pharmacies. *Pharm Pract*. 2011;9(4):242–51.
- Shohel, M., Islam, T., Al-Amin, M.M., Islam, A. and Rahman, M.M. (2013), “Investigation of consumer attitudes, intentions and brand loyal behavior on the OTC drugs in Bangladesh”, *British Journal of Pharmaceutical Research*, Vol. 3 No. 3, p. 454
- Srivastava R K (2007), *Text Book on Product Management*, Excell Publishing, New Delhi.
- Svorc J. 2012. Consumer's intentions to shop medicaments on-line: a survey from Czech Republic market. *J Syst Integrat* 3(2): 3–28
- Sukato, N. & Elsey, B. (2009). A model of male consumer behaviour in buying skin care products in Thailand. *ABAC Journal*, Vol. 29, No. 1, pp 39-52
- Tan, M., & Teo, T. (2000). Factors Influencing the Adoption of Internet Banking. *Journal of the Association for Information System* Vol. 1 Article 5.
- Tan, S. J., (1999) "Strategies for reducing consumers' risk aversion in Internet shopping", *Journal of Consumer Marketing*, Vol. 16 Iss: 2, pp.163 – 180

- Tarkiainen and Sundqvist, 2005 Subjective norms, attitudes and intentions of Finnish consumers in buying organic food *British Food Journal*, 107 (11) (2005), pp. 808–822
- Taylor, D., Mrazek, M. and Mossialos, E. (2004), “Regulating pharmaceutical distribution and retail pharmacy in Europe”, in Mossialos, E., Mrazek, M. and Walley, T. (Eds), *Regulating Pharmaceuticals in Europe: Striving for Efficiency, Equity and Quality*, Open University Press, Maidenhead, pp. 196-212.
- Tekiner, H., Pharmacy in Turkey : past, present, and future. *Pharmazie*, 69 (6):477-480 (2014).
- Toklu HZ, Dülger GA, Hidiroğlu S, et al. Knowledge and attitudes of the pharmacists, prescribers and patients towards generic drug use in Istanbul, Turkey. *Pharm Pract (Granada)*. 2012;25(35):36–45.
- Topcu Y, Isik HB, Uzundumlu AS (2009). Turkish consumer attitudes toward food products: The case of Erzurum. *Ital. J. Food Sci.* 21(1):37-50.
- Topcu Y. and Uzundumlu A.S. (2012). Turkish consumers’ purchase attitude and behaviors towards Kahramanmaraş type ice cream as a local branded product. *African Journal of Business Management* 6 (34): 9695-9703.
- TUIK: <http://www.tuik.gov.tr/UstMenu.do?metod=temelist>
- Turek, A. and Owczarek, A., 2014. Determinant of consumption behavior of over-the-counter medications – The case of painkillers and anti-inflammatory medications. *Journal of Economics and Management*, 2014, 15: 25–59.
- Turkish pharmacists’ association, Reçetesiz ilaçlar ve ilaç dışı ürünler: betimleme ve müdahale, raporlar dizisi 1, 2009, Available at: [\[eski.teb.org.tr/tebdownload.php?file=images/upld2/tebfarmasotik.pdf\]](http://eski.teb.org.tr/tebdownload.php?file=images/upld2/tebfarmasotik.pdf)
- Tyebjee et. al., (1979), "Refinement of the Involvement Concept: An Advertising Planning Point of View," in *Attitude Research Plays for High Stakes*, eds. J. C.

- Maloney and B. Silverman, Chicago: American Marketing Association, 94-111.
- Verma, S. (2009) "An empirical analysis of consumer's attitude towards OTC health supplements in India". *International Journal of Indian Culture and Business Management* pp 1 – 10.
- Villako P, Volmer D, Raal A (2012) Factors influencing purchase of and counselling about prescription and OTC medicines at community pharmacies in Tallinn, Estonia. *Acta Pol Pharm* 9:335–340
- Walker A, Watson M, Grimshaw J, Bond C: Applying the theory of planned behaviour to pharmacists' beliefs and intentions about the treatment of vaginal candidiasis with non prescription medicines. *Fam Pract.* 2004, 21: 670-676
- Walsh A, Edwards H, Fraser J: Influences on parents' fever management: beliefs, experiences and information sources. *JCN.* 2007, 16: 2331-2340.
- Wang, W.B., H.T. Keh, L.E. Bolton, Lay Theories of Medicine and a Healthy Lifestyle, *J Consum Res*, 37 (1) (2009), pp. 80–97
<http://dx.doi.org/10.1086/649772>
- Wangcharoen, W., Doungporn Amornlerdpison and Kriangsak Mengumphan, Factors influencing dietary supplement consumption: A case study in Chiang Mai, Thailand, *Maejo international journal of science and technology* 7(1):155-165 · January 2013
- Wazaify M, Shields E, Hughes CM, McElnay JC. Societal perspectives on over the counter (OTC) medicines. *Fam Pract* 2005;22:170–6.
- Wertheimer AI, Serradell J. A discussion paper on self-care and its implications for pharmacists. *Pharm World Sci Epub* 2008; 18
- William R. and Soller (1996) "Evolution of self care With over the counter medications" *British Medical Journal.* Vol-312, pp 756-763.

- Wirtz, J. and A. S. Mattila, 2003. The effects of consumer expertise on evoked set size and service loyalty. *Journal of Services Marketing* 17(7): 649 -665.
- World Health Organization (WHO) Regional Office for South-East Asia. Self-care in the Context of Primary Health Care: Report of the Regional Consultation Bangkok, Thailand, 7–9 January 2009. New Delhi: WHO Regional Office for South-East Asia; 2009.
- WORLD HEALTH ORGANIZATION. The role of the pharmacist in self-care and self-medication. *Geneva: World Health Organization, 1998. 17p.*
- WORLD SELF-MEDICATION INDUSTRY. WSMI declaration on self-care and self medication, 2006a. Available at: . Accessed on: 28 jan. 2009.
- WORLD SELF-MEDICATION INDUSTRY. Responsible selfcare and self-medication: a worldwide review of consumer surveys. Ferney-Voltaire: WSMI, 2006b. 16 p. Available at: . Accessed on: 28 jan. 2009.
- Wozniak-Holecka J, Grajek M, Siwozad K, Mazgaj K, Czech E (2012) Consumer behavior in OTC medicines market. *Przeegl Epidemiol* 66(1):157–160
- Yanfeng Zhou, John Thøgersen, Yajing Ruan, Guang Huang, (2013), " The moderating role of human values in planned behavior: the case of Chinese consumers ' intention to buy organic food ", *Journal of Consumer Marketing*, Vol. 30 Iss 4 pp. 335 – 344
- Yousif, R.O., *International Journal of Sales & Marketing Management Research and Development (IJSMMRD)*, 2016; 6(2) 19–30. ICID: 1218234
- Zaichkowsky, J.L., 1985. Measuring the involvement construct. *Journal of Consumer Research* 12,341-352.
- Zaichkowsky, J. L. (1986), "Conceptualizing Involvement," *Journal of Advertising*, 15 (2),4 14.

7. APPENDIX:

Focus Group Study Questions

Dear participants,

I would like to welcome all of you to this focus group session. Thank you very much for giving the time to be part of this session to discuss about OTC products in Turkey. My name is Sevgi Salman ÜNVER. I am currently conducting a series of focus group discussions as part of my doctorate thesis's research project about Over the Counter (OTC) product purchasing behavior. You were invited to participate this discussion in order to understand customer behavior on purchase of OTC products.

Please be relaxed and natural, because we are not expecting to get any right or wrong answers but our aim to retrieve the opinions from different points of view. Please feel free to express your opinions even if they are different from the others. Both negative and positive comments are very welcome. In some situation, the negative comments are the most helpful.

All the session will be tape recorded, because any of your comments are very important and we don't want to miss any of them. We will use only the first name of you. Moreover neither first name nor last name will be used in the report and thesis. Please be assured of complete confidentiality. The reports will be used only for my PhD research project.

Yes, we can start to session. You can find your name cards on the table in front of you to help us remember each other's names. At the beginning, let's start to know each other more. Tell us your name, age, occupation, marital status and if you have, number of children.

The topic for this discussion group is OTC Product.

- 1- Could I ask you to identify what the term 'OTC' means to you?
- 2- What kind of products would this definition encompass? What products would not be encompassed in this definition?

- a- Please list 5-10 OTC products on top of your mind.
- b- Please list 5-10 prescribed drugs on top of your mind.
- 3- What are the main differences between prescribed drugs and OTC products in terms of purchasing?
- 4- Definition of OTCs
 FDA definition: ‘OTC drugs are drugs that have been found to be safe and appropriate for use without the supervision of a health care professional such as a physician, and they can be purchased by consumers without a prescription. These drugs are sometimes approved under applications like new prescription drugs, but more often they are legally marketed without an application by following a regulation called an OTC drug monograph.’
- 5- How frequent do you purchase OTC products?
 a- Please select kind of product from list and mark how frequent are you purchasing these products?

List of OTC products	0	1-2 times	3-4 times	5-6 times	7-8 times	9-10 times	11 or more
Vitamins (multivitamin complex), Vitamin A, Vitamin B1, Vitamin B12, Vitamin B6, Vitamin C, Vitamin D, Vitamin E, Vitamin K)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mineral Supplements (Iron, Calcium, Magnesium,	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Chromium, Folat, Iodine, Zinc, Riboflavin, Selenium, Thiamin etc)							
Dietary Supplement (Fish oil, other essential oils, Garlic Ginger, Ginkgo, Ginseng, Coenzyme Q10, Glucosamine Goldenseal, Grape Seed Extract, Herbal Dietary Supplements, Probiotics, Aloe Vera etc.)	○	○	○	○	○	○	○

- 6- Please share your positive experiences you've had with OTC products?
- 7- Please share your any of disappointments you've had with OTC products?
- 8- Can you please let us know about influencing factors of your decision to purchase a type/brands of OTC Products? Who or what kind of factors?
- 9- Please have a piece of paper and list three important things that are crucial to you when you purchase OTC products?
- 10- All these responses about influencing factor are written to the flip chart. Pick the most important factor for you. You can pick something that you mentioned or something that was said by others.
- 11- Could you please list all factors in orders of importance, the first is the most important.

- a. Are there any factors that are related to each other?
 - b. If you have more knowledge about the OTC products that you purchase do you think that these this hierarchy will change at all? How?
 - c. If you have previous experience about the OTC products that you purchase do you think that these this hierarchy will change at all? How?
 - d. What do you think about pricing influence on purchasing behavior?
 - e. What do you think about influence of gender on purchasing behavior?
- 12- Do you think to use OTC products risky or not? Why?
- 13- Have you ever changed any of your purchasing decision of OTC products due to any recommendation from other? Who was he/she? Pharmacist? Doctor? Friend? Family member, any customer etc.? What brought about the change?
- 14- According to your opinion, what kind of personal characteristics do people tend to purchase more OTC products than average?
- 15- When you think all the things we've talked about, what is most vital to you when you are purchase any OTC products?
- 16- How do you think that the future looks for OTC products in terms of consumption?
- 17- Is there any point that we should have talked about additionally? Would you like to add anything else?

Thank you very much for your contribution.

**INFLUENCING FACTORS ON PURCHASING INTENTIONS OF OTC
(Over-The-Counter) PRODUCTS**

Araştırma Soruları

1- Sağlık Bilinci

Dutta-Bergman, M. (2004). A descriptive narrative of health eating: A social marketing approach using psychographics. Health Marketing Quarterly, 20, 81–101

	Sağlık Bilinci Dutta- Bergman (2004)	Kesinlikle Katılmıyorum	Kısmen Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Kısmen Katılıyorum	Kesinlikle Katılıyorum
		1	2	3	4	5
1	Mümkün olan en sağlıklı yaşamı sürmek benim için çok önemlidir.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Sağlığımı korumak için önleyici tedbirler alırım.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Sağlığım kendime iyi bakmama bağlıdır	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4	Sağlıklı kalabilmek için sağlık beslenmeyi önemserim.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	Sağlıklı kalmak için her şeyi yaparım.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1. Health Consciousness

	Health Consciousness Dutta-Bergman (2004)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	Living life in the best possible health is very important to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I Take preventive measures to keep me healthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	My health depends on how well I take care of myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I care healthy feeding to keep me healthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	I do everything I can to stay healthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Bilgi Düzeyi

	Bilgi Düzeyi Brabers et. al. (2103)	Kesinlikle Katılmıyoru m	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
		1	2	3	4	5
1	OTC ürünlerle ilgili farklı ürünler ve markalar arasında en uygun olanı seçebilecek kadar bilgiliyim.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	OTC Ürünlerle ilgili bilgime güveniyorum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Çevremdeki insanlara göre OTC ürünler hakkında daha bilgiliyim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	OTC ürünleri en güvenli şekilde nasıl kullanacağımı biliyorum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	OTC ürünlerle ilgili bir tavsiye aldığımda, teyit etmek için en doğru bilgiye kısa sürede ulaşırım.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Level of Knowledge

Level of Knowledge Brabers et. al. (2103)		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I am knowledgeable enough to make an appropriate choice between different types and brands of OTCs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I am confident in my knowledge of OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Among my friends, I am very knowledgeable about OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I know exactly how to use OTC products in a safe way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	When I get advice on OTC products, I can easily get the right information					

3. Fiyat Bilinci

Lichtenstein, Donald R., N. M. Ridgway, and Richard G. Netemeyer (1993). "Price perceptions and consumer shopping behaviour: A field study," Journal of Marketing Research, 30 (May): 234-245.

Fiyat Bilinci Lichtenstein et al. 1993	Kesinlikle Katılmıyorum	Kısmen Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Kısmen Katılıyorum	Kesinlikle Katılıyorum
	1	2	3	4	5
1 Daha ucuz ürün bulabilmek için ekstra çaba sarf etmek istemem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 Daha ucuz ürün araştırılarak tasarruf edilen para, genellikle harcanan zamana değmez	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 Daha ucuz ürün araştırmak için harcanan zaman, genellikle harcanan çabaya değmez.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4 Daha ucuz ürünleri bulabilmek için fiyat araştırması yapmayı sevmem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.Price Consciousness

Price Consciousness Lichtenstein et al. 1993		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I am not willing to go to the extra effort to find lower prices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	The money saved by searching for lower prices is usually not worth the time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	The time it takes to find lower prices is usually not worth the effort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I am not willing to search for lower prices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Riskten Kaçınma

Burton, S., Lichtenstein, D.R., Netemeyer, R.G. and Garretson, J.A. (1998)“A scale for measuring attitude toward private label products and an examination of its psychological and behavioral correlates” Academy of Marketing Science. N°26, Vol. 4,p. 293-306.

	Riskten Kaçınma Burton et al.1998	Kesinlikle Katılmıyorum	Kısmen Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Kısmen Katılıyorum	Kesinlikle Katılıyorum
		1	2	3	4	5
1	Risk almaktan hoşlanmam	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Tanıdığım çoğu insanla kıyaslandığımda hayatı uçlarda yaşamayı sevmem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Gereksiz şeyler için kendimi riske atmak istemem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Tanıdığım çoğu insanla kıyaslandığımda risk almayı sevmem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Risk Averseness

Risk Averseness Burton et al.1998		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I don't like to take risks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Compared to most people I know, I don't like to "live life on the edge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I don't want to take risk for unnecessary things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Compared to most people I know, I don't like to take risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Katılım

Mittal , B . and Lee , M . (1988) Separating BrandChoice Involvement from Product Involvement via Consumer Involvement Profiles . In: M.J. Houston(ed.) Advance in Consumer Research Provo, UT, Association for Consumer Research , Vol. 15, No. 1, pp. 43 – 49 .

1. Pazarda bulunan farklı tür ve markalardaki OTC ürünler arasından bana en uygun olanı seçebilmek için...

1	2	3	4	5	6	7
Hiç çaba harcamam	2	3	4	5	6	Çok çaba harcarım

2. Aldığım bir OTC ürününü seçerken doğru bir tercih yapmış olmak benim için...

1	2	3	4	5	6	7
Hiç önemli değildir	2	3	4	5	6	Son derece önemlidir

3. OTC ürünü aldıktan sonra seçimimin yanlış olduğunu görsem...

1	2	3	4	5	6	7
Hiç üzülmem	2	3	4	5	6	Çok üzülürüm

4. OTC ürünü aldıktan sonra seçimimin yanlış olduğunu görsem...

1	2	3	4	5	6	7
Dert etmem	2	3	4	5	6	Hayal kırıklığına uğrarım

5. Involvement

Mittal et.al. (1988)

6. In selecting from the many types and brands of OTC products available in the market, would you say that:

1	2	3	4	5	6	7
I don't effort at all	2	3	4	5	6	I effort too much

7. In making right selection of how concerned would you be about the outcome of your choice?

1	2	3	4	5	6	7
Not at all important	2	3	4	5	6	Extremely important

8. How important would it be to you to make a wrong choice of this product?

1	2	3	4	5	6	7
I don't care	2	3	4	5	6	I am disappointed

9. How important would it be to you to make a wrong choice of this product?

1	2	3	4	5	6	7
I don't care	2	3	4	5	6	I am disappointed

6. Reçetesiz Satılan Ürün Satın Alma Tutumları

Yanfeng Zhou, John Thøgersen, Yajing Ruan, Guang Huang , (2013)," The moderating role of human values in planned behavior: the case of Chinese consumers ' intention to buy organic food ", Journal of Consumer Marketing, Vol. 30 Iss 4 pp. 335 – 344

	Reçetesiz Satılan Ürün Satın Alma Tutumları Zhou et. al. (2013)	Kesinlikle Katılmıyorum	Kısmen Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Kısmen Katılıyorum	Kesinlikle Katılıyorum
		1	2	3	4	5
1	Sağlıklı bir yaşam için OTC ürün kullanmayı severim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	OTC ürünlerin benim sağlığımı korumak için etkili olduklarını düşünüyorum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	OTC ürünlerin güvenilir olduğunu düşünüyorum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	OTC ürünlerin kullanımını diğer insanlara tavsiye ederim.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Attitude Towards OTC Purchase

Attitude Towards OTC Purchase Zhou et. al. (2013)		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I like to use OTC products to maintain and promote my health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I believe that OTC products are effective to keep me healthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I think that OTC products are safe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I recommend to use of OTC products to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Öznel Normlar

Hee Yeon Kim, Jae-Eun Chung, (2011) "Consumer purchase intention for organic personal care products", Journal of Consumer Marketing, Vol. 28 Iss: 1, pp.40 – 47

	Subjective Norm Kim& Chung (2011)	Kesinlikle Katılmıyorum	Kısmen Katılmıyoru m	Ne Katılıyorum Ne Katılmıyorum	Kısmen Katılıyorum	Kesinlikle Katılıyorum
		1	2	3	4	5
1	Benim için önemli kişilerin önerileri satın alma eğilim üzerinde etkilidir.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Benim için önemli olan kişilerin kullandığı ürünleri ben de alırım.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Bir ürün almaya karar verirken benim için önemli olan kişiler kararımı onaylarsa, o ürünü alırım.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Sosyal çevremde daha kolay kabul görmek için ürünler satın aldığım da olur.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Subjective Norm

Subjective Norm Kim& Chung (2011)		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	The suggestion of people who are important to me can influence my intention and purchasing product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	If people who are important to me use and buy the product, I will comply	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	If people who are important to me use support or agree that I will buy the product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I buy the product in order to gain social approval.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Algılanan Davranışsal Kontrol

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32, 665-683.

	Algılanan Davranışsal Kontrolü Ajzen (2002)	Kesinlikle Katılmıyorum	Kısmen Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Kısmen Katılıyorum	Kesinlikle Katılıyorum
		1	2	3	4	5
1	OTC ürünleri bulmak ve satın almak için yeterince zamanım var	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	OTC ürünleri bulmak ve ulaşmak için yeterince bilgim var	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	OTC ürünleri satın almak için maddi imkânım var.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	OTC ürünleri alırken karşıma çıkacak zorlukları çözebilirim.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Perceived Behavioral Control

	Perceived Behavioral Control Ajzen (2002)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I have enough time to find and purchase OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I have enough information to find and access OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I have the resources (financial) to purchase OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I am able to control and solve difficulties when finding/purchasing OTC products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Satın Alma Niyeti

Fishbein, M. & Ajzen, I. (2010). Predicting and changing behavior: The reasoned action approach. New York, NY: Psychology Press, Taylor & Francis Group.

	Satın Alma Niyeti Fishbein and Ajzen (2010).	Kesinlikle Katılmıyorum	Kısmen Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Kısmen Katılıyorum	Kesinlikle Katılıyorum
		1	2	3	4	5
1	Önümüzdeki ilk 6 ay içerisinde herhangi bir OTC ürününü alabilirim.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Önümüzdeki ilk 6 ay içerisinde herhangi bir OTC ürününü almayı isterim.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Önümüzdeki ilk 6 ay içerisinde herhangi bir OTC ürününü almayı deneyeceğim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Önümüzdeki ilk 6 ay içerisinde herhangi bir OTC ürününü kesinlikle alacağım.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Purchase Intention

	Purchase Intention Fishbein and Ajzen (2010).	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	I am intend to purchase OTC in within six months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I am willing to purchase OTC within six months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I attempt to purchase OTC within six months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I try purchase OTC products within six months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	I will definitely purchase OTC products within six months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Demographic Variables:

Cinsiyet	<input type="checkbox"/>	Kadın	Yaşınız:	
	<input type="checkbox"/>	Erkek		
Medeni Durumu	<input type="checkbox"/>	Bekar		
	<input type="checkbox"/>	Evli		
Aylık Geliri	<input type="checkbox"/>	1000 TL'den az	<input type="checkbox"/>	5000-6999 TL
	<input type="checkbox"/>	1000-2999 TL	<input type="checkbox"/>	7000-8999 TL
	<input type="checkbox"/>	3000-4999 TL	<input type="checkbox"/>	9000 TL ve üzeri
Eğitim Durumu	<input type="checkbox"/>	İlköğretim	<input type="checkbox"/>	Üniversite
	<input type="checkbox"/>	Lise	<input type="checkbox"/>	Master / MBA
	<input type="checkbox"/>	Yüksekokul	<input type="checkbox"/>	Doktora
İş Durumu	<input type="checkbox"/>	Devlet Memuru	<input type="checkbox"/>	Özel Sektör
	<input type="checkbox"/>	Öğrenci	<input type="checkbox"/>	Çalışmıyor