

**Addis Ababa University  
College of Business and Economics  
School of Commerce  
Graduate Studies  
Marketing Management Program Unit**

**Factors Affecting Consumers' Purchase Decision of Over-The-Counter (OTC)  
Medicines: Empirical Evidences from Community Pharmacies in Ethiopia.**

**By: Meseret Wube Temechewu**

*Advisor: Mulugeta Gebremedhin (PhD)*

*May, 2018  
Addis Ababa, Ethiopia*

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**By: Meseret Wube Temechewu**

**Thesis Submitted to School of Graduate Studies of Addis Ababa University, School  
of Commerce for the Award of the Degree of Masters of Art in Marketing  
Management**

*Advisor: Mulugeta Gebremedhin (PhD)*

*May, 2018*

*Addis Ababa, Ethiopia*

## **Approval**

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## **Statement of Certification**

This is to certify that **Meseret Wube** has carried out his research work on the topic entitled **Factors Affecting Consumers' Purchase Decision of Over- the- Counter Medicines; Empirical Evidences from Community Pharmacies in Ethiopia** is his original work and is suitable for submission for the award of Master's Degree in Marketing Management.

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Advisor: Mulugeta Gebremedhin (PhD)

May, 2018

Addis Ababa, Ethiopia

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## **Statement of Declaration**

I, Meseret Wube, hereby declare that the thesis entitled *Factors Affecting Consumers' Purchase Decision of Over- the- Counter Medicines; Empirical Evidences from Community Pharmacies in Ethiopia* is the outcome of my own effort and study and that all sources of materials used for the study have been duly acknowledged. This study has not been submitted for any degree in this University or any other University. It is offered for the partial fulfillment of the degree of MA in Marketing Management.

*Declared by:*

*Name; Meseret Wube Temechewu*

*Signature; -----*

## **Acknowledgement**

First of all, I would like to thank the Almighty God for giving me the opportunity, courage, and inspiration to join and complete this study. Then I would like to express my gratitude to my advisor Dr Mulugeta Gebremedhin, who was abundantly helpful and offered invaluable assistance, support and guidance. I would like to thank Amare Gete, for his entire support of stationary materials. I would also like to thanks all respondents who agreed to participate in this study. Lastly, words cannot express enough my appreciation to my wife Yekaba Getalem for her patience, understanding and endless support during the entire study period.

## **Abstract**

*The objective of this study was to examine factors affecting consumers' purchase decision of over-the-counter (OTC) medicines from community pharmacies in Ethiopia. A quantitative research design, and descriptive and explanatory research approaches were used. Both primary and secondary data were collected. For primary data (questionnaire) and secondary data (related literatures and different documents) were used. Statistical Package for the Social Sciences (SPSS) version 23 was used to analyze the data.*

*The study had a 96% response rate. According to the finding, pharmacist's recommendation, price, and country of origin of OTC medicines have positive and significant effect on consumers' purchase decision. Even though, past experience and families' and friends' recommendation also have positive effect on consumers' purchase decision of OTC medicine, their effect were not statistically significant.*

*Consumers' decisions to purchase OTC medicines were influenced by pharmacist's recommendation followed by price and country of origin of OTC medicines. Past experience and families' and friends' recommendation did not show a statistically significant effect. Therefore; marketers of OTC medication could benefit from considering community pharmacists as main targets for their promotional activities, they could also benefit from pricing strategies to have competitive advantages and manage needs of their consumers, and marketers could also capitalize on the country of origin for their products in their marketing activities.*

**Key Words:** Community Pharmacy, OTC Medicine, and Purchase Decision

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## **Abbreviation**

CME:	Continuous Medical Education
FMHACA:	Food, Medicine, Health Care Administration and Control Authority
FMOH:	Federal Democratic Republic of Ethiopia Ministry of Health
OTC:	Over-The- Counter
POM:	Prescription Only Medicine
SPSS:	Statistical Software Package for Social Science
WHO:	World Health Organization
WOM:	Word of Mouth

## **Chapter One**

### **Introduction**

#### **1.1. Background of the Study**

According to Solomon, M., Bamossy, G., Askegaard, S. and Hogg, M.K. (2006) a consumer purchase is a response to a problem to realize that wants to make a purchase, and s/he goes through a series of steps which are problem recognition, information search, evaluation of alternatives, and product choice. After the decision is made, the quality of that decision affects the final step in the process, when learning occurs based on how well the choice worked out. This learning process, of course, influences the likelihood that the same choice will be made the next time the need for a similar decision occurs.

Nowadays, purchase decision is more complicated and more significant for consumers than in the past. Customers are encompassed by reports, advertisements, articles and direct mailings that provide large amount of information. Moreover, different kinds of products, supplies, super markets and shopping malls have complex and difficult decision making (Kotler and Armstrong, 2012).

One of the important issues in the study and identification of consumer behavior is the process of purchase decision. Most of the organizations which study the purchase behavior of consumers attempt to gain information about what consumers buy and also the reason, number, type and place of their purchase. However, unlike the type, number and place of purchase, it is not an easy task to find information about the reasons of consumer or buyer's purchase behavior, because the answer to this question is in the mind of consumer or buyer (Azimi and Shabani, 2016).

To be successful in any business, especially in today's dynamic and rapidly evolving marketplace, marketers need to know everything about consumers. Marketers who have a thorough understanding of the consumer decision making process are likely to design products, establish prices, select distribution outlets, and design promotional messages that will favorably influence consumer purchase decisions (Solomon, et al., 2006).

### **1.1.1 Global Pharmaceutical Market**

The total volume of medicines consumed globally will increase by about 3% annually through 2021, only modestly faster than population and demographic shifts, but driven by very different factors around the world. Global medicine spending will reach nearly \$1.5 trillion by 2021, up nearly \$370 billion from the 2016 estimated spending level (Quintiles IMS Institute, 2016).

The use of non-prescription medicines is the most prevalent form of medical care in the world (Covington, 2002). Sales are huge, with the global market estimated to be worth €73 billion. Emerging markets in Central and Eastern Europe, the People's Republic of China, Russia, and India now represent major growth areas for nonprescription medicines. Fuelled by these markets, non-prescription medicines have seen greater sales growth than that of prescription medicines since 2008 (Tisman, 2015).

According to IMS Health Africa (2013) the combination of economic strength and an expanding middle class is already driving a demand for medicines across Africa. In addition the main indicators of very attractive markets potential in the region are, huge populations, increasing prosperity, and improving longevity. By 2016, pharmaceutical spending in Africa was expected to reach US\$30 billion.

### **1.1.2 Pharmaceutical Market in Ethiopia**

According to Frost & Sullivan (2012), Ethiopia is classified as the most populous country in sub-Saharan Africa and has an estimated population size greater than 84 million. Ethiopia contributes 1.2% of the world's population with an annual growth rate of 3.2%. Ethiopia's population forecast for 2050 is estimated to be 173 million. The increase in population size results in an increase in the number of individuals requiring health care; thus increasing the demand for various pharmacological agents. On the other hand, FMOH & FMOI (2015) described that the 2015/16 annual pharmaceutical market of Ethiopia was 800 million USD and growing at an impressive rate of 25% per annum. Considering the high economic growth, expansion of

healthcare coverage, high disease burden, large population size and increased awareness around modern medicines, the annual pharmaceutical market is estimated to be worth 1 billion USD in 2018.

According to FMoH (2014), Ethiopia registered an average of 8.1% growth in GDP between 2002- 2012 and this led to increased growth of healthcare coverage and improved access to medication. The national health expenditure increased substantially from Birr 11.1 billion (USD 1.2 billion) nominal & USD 16.09 per capita in 2007/08 to over Birr 26.5 billion (USD 1.6 billion) nominal & USD 20.77 per capita in 2010/11.

The private pharmaceutical market is supplied majorly by the products which are being imported from different companies from different continents (Andualem, 1995). Though compiled data on most of the pharmaceutical economics are rare, it can, however, be said that the country doesn't have a developed pharmaceutical industry, but only few and small factories which mainly manufacture generic products using a commissioned master formula developed elsewhere. These factories produce some 25-30% of the essential drugs that the health sector of the country needs. The remaining 70-75% of the country's medicines market has been left vacant for imported products (FMoH & WHO, 2003).

Bond (n.d.) also explained in most of the world, access to and supply of medicines is governed by a regulatory framework which is based on perceptions of the risks and benefits of the medicine to the population. Accordingly, in Ethiopia, there are two broad categories of medicines: Prescription Only Medicines (POM), and Non- prescription or Over- the- Counter (OTC) medicines. POM medicines are medicines only available to the public when prescribed by an authorized medical practitioner such as medical doctors, nurses, health officers, and dental doctors. On the other hand, Over-the-counter (OTC) medicines are medicines that can be sold directly to a consumer without a prescription from pharmacy personnel. That means medicines legally allowed to be sold to the consumer over the counter by pharmacists without a prescription from a registered doctor.

In general, OTC medicines have to be used primarily to treat a condition that does not require the direct supervision of a doctor and they are proving to be reasonably safe and well-tolerated.

Currently there are more than 24 therapeutic categories of OTC medicines and within these categories there are more than 92 types of OTC medicine in national drug list of Ethiopia (FMHACA, 2012).

## **1.2. Statement of the Problem**

Recently, the practice of OTC medicine consumption is widely accepted and successfully integrated into many health care systems throughout the world (WHO, 2000). In most economically deprived countries including Ethiopia, many drugs are dispensed OTC and majority of health related problems, nearly 60- 80%, are treated through self-medication as lower cost alternative and if it is used appropriately, use of OTC medicine could lighten the demand on doctors and make people more health conscious (DACA and MSH/ SPS, 2009).

According to FMOH & WHO (2003), the pharmaceutical industry has always been of interest to marketers as a large and internationally competitive industry. Therefore; understanding consumers' behavior before they made purchase decision will help for product manufacturers and service providers to develop strategies in line with customers' actions. Particularly knowing what makes customers to prefer between brands will make the manufacturer to adapt strategies based on the influential factors (Kotler and Armstrong, 2012).

Several studies have been conducted in different countries of Europe and Asia to examine factors affecting consumers purchase decision of OTC medicines. For instance, Boström (2011), Major and Vincze (2010), Yousif (2016), Haramiova, Kobliskova, and Soltysova (2017), Shohel, Islam, Al-Amin, Islam, and Rahman, (2013), Dadhich & Dixit (2017), Kevrekidis, Minarikova, Markos, Malovecka, and Minarik (2017), Cîrstea, et al. (2017), Talabă & Andrei (2010), and Villako, Volmer, and Raal (2012). These studies have shown that pharmacists' recommendation, families' and friends' recommendation, country of origin, previous experience and price are commonly identified determinant factors of consumers purchase decision of OTC medicines.

In Ethiopian context, few studies have been conducted on OTC medicines from pharmacy practice perspective Girma, Diriba, Zerihun, Derbew, Abera, Mussie, Gebremedhin, Naod, Raghavendra, and Abrham (2011), Abdissa & Anbessa (2015), (Mohammed, 2017), Tewodros,

Abebe, Tirsit, Mulugeta, and Eshetu (2015) and their result showed that there is a significant numbers of consumers practicing self-medication. But, in the best of authors' knowledge, no research has been conducted on OTC medicines from consumer behavior perspectives, especially, purchase decision in Ethiopia.

Therefore, this study will provide an insight to pharmaceuticals marketers about factors which affect consumer purchase decision of OTC medicines. In addition, based on the finding, pharmaceutical marketers will design their marketing strategies, in efficient and effective manner so as to have sustainable competitive advantages. Moreover, this study will be used as a baseline for further research.

### **1.3. Research Questions**

To achieve the purpose of the study, the researcher formulated the research question by relying on the background and problem statement of the study.

The main research question of this study was:

- ✓ What factors affect consumers purchase decision of OTC medicine and to what extent they affect it?

Specific research questions for the study were:

1. How does pharmacist's recommendation affect consumers purchase decision of OTC medicines?
2. To what extent family's and friends' recommendation affect consumers purchase decision of OTC medicines?
3. How does country of origin affect consumer purchase decision of OTC medicines?
4. How a past experience does affect consumer purchase decision of OTC medicines?
5. To what extent price affect consumer purchase decision of OTC medicines?

---

## **1.4. Research Objectives**

### **1.4.1. General Objective**

The general objective of this study was to investigate factors affecting consumers purchase decision of over-the-counter (OTC) medicine from community pharmacies in Ethiopia.

### **1.4.2. Specific Objectives**

- ✓ To examine the effect of pharmacist's recommendation on consumer purchase decision of OTC medicines.
- ✓ To determine the effect of family's and friends' recommendation on consumer purchase decision of OTC medicines.
- ✓ To identify the effect of country of origin on consumer purchase decision of OTC medicines.
- ✓ To analyze the effect of past experience on purchase decision of OTC medicines.
- ✓ To identify the effect of price on purchase decision of OTC medicines.

## **1.5. Significance of the Study**

For the past decade, the pharmacy profession has become increasingly interested in broadening the role of pharmacists beyond the customary product-oriented functions of dispensing and distributing prescription medications to a consumer-oriented role with an emphasis on the provision of consumer services (Kotecki, 2002).

According to Denise, Jisu, Leonard, and Soontae (2010), the OTC medicine market is expected to continue expanding in the near future for several reasons. First, self-medication is growing and OTC drugs provide a convenient and inexpensive way to treat minor and ordinary health problems. Second, Prescription only-to-OTC switching is not likely to abate, making more medications available without a prescription. Third, health literacy is likely to increase, especially as use of the internet as a source of self-medication information expands.

In addition, Battistoni, Colladon, and Puglia (2014) suggested that OTC medicine market has two very peculiar characteristics: firstly, consumers buy products in response to their specific

health needs; nonetheless, the market is not strictly regulated in the same way that the prescription market, which allows firms to choose their pricing and communication strategies. Secondly, consumers are not forced by physicians to buy one specific drug, so they can choose the one they prefer.

Therefore; this study will provide an insight to pharmaceutical marketers on factors which affect consumer purchase decision of OTC medicines. In addition, based on the finding, pharmaceutical marketers will design their marketing strategies, in efficient and effective manner so as to have sustainable competitive advantages. Moreover, the result will have paramount importance for being as a baseline for further study.

## **1.6. Scope of the Study**

This study has three main delimitations. These are; geographical, conceptual and methodological delimitations.

First, due to the cost and difficulty to maintain large number of population throughout Ethiopia as study participant, geographically, this study is limited to Addis Ababa, which is a small portion of the country. Therefore, the findings might not be the reflection of consumer purchase decision of the whole of the country.

Second, this study has two main conceptual scopes. The first one is it is limited to OTC medicines. This is because OTC medicines are representing one of the main product categories in pharmacies and that are available to the consumers without prescription, and the consumers have the possibility to make their product choice independent of physicians. On the other hand, because of limited resources and for a focused result, the researcher decided to examine the effect of include only pharmacist recommendation, families' and friends' recommendation, past experience, country of origin and the price of OTC medicine as independent variables, though there are other factors which may affect consumers purchase decision of OTC medicines. These are packaging, advertisement, brand name, dosage, symptom, and medical examination price. This is mainly because; (1) Advertisement; Donohue, Marsa, & Resenthal (2007) pinpoint that direct to consumer advertising (DTCA) of prescription medicines was introduced to USA and

other developed countries in early 1990s. But in Ethiopia, DTCA is not started yet. This is because, according to the regulation of pharmaceutical promotion, companies are prohibited from promotional efforts directed to general public rather they are only allowed personal selling effort by certified pharmaceutical company representatives (PCRs) only to health professionals (FMHACA, 2012) and in accordance of Ethiopian proclamation on advertisement, No. 759/2012, 25(1b), direct or indirect dissemination of the prescription medicine or medical appliance is prohibited. (2) Medical examination price; this will be a determinant factor for the consumers to select their treatment option either clinical treatment by going to doctors office or self medication, going to pharmacy. Therefore; it is not considered as determinant factor for their purchase decision of OTC medications.

Finally, this study targeted only on community pharmacies as population, and did not include hospital pharmacies, which was its methodological delimitation. This is because, community pharmacists are most accessible to the public, an opportunity to become more than medication dispensers. Unlike community pharmacies, the businesses of the hospital pharmacies are depending on prescription only medicines from respective hospital where they are in (Melton and Lai, 2017).

## **1.7. Definition of Terms**

### **Consumer Behavior**

Consumer behavior is the totality of consumers' decisions with respect to the acquisition, consumption, and disposition of goods, services, activities, experiences, people, and ideas by (human) decision-making units [over time] (Hoyer and MacInnis, 2010).

### **Consumer**

For this study purpose a consumer is defined as a client who purchases OTC medicines from community pharmacies.

### **Dispensing**

Dispensing is the act of preparing medicines and/or medical supplies and distributing to users with adequate information, counseling and appropriate follow up.

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### **Over-the- counter Medicine**

It means a medicine that can be sold directly to a consumer without a prescription.

### **Prescription**

Prescription is defined as any order for medicines written by a physician issued to a patient in order to collect medicine from pharmacy.

### **Prescription only Medicine**

A medicine which is available to the public only when prescribed by authorized medical practitioner.

### **Community Pharmacy**

WHO define community pharmacy as drug retail outlets that are privately owned and whose function, in varying degrees is to serve societies needs for both drug product and pharmaceutical service such as dispensing of drugs and advising patient on the safe and rational drug use (WHO, 1993).

### **Self-Medication**

It is the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms (WHO, 1998).

## **1.8. Organization of the Study**

This study has five chapters. The first chapter deals with background information, statement of the problem, basic research questions, objective of the study, significance of the study, hypothesis, limitation of the study and scope of the study. The second chapter deals with review of literature. The third chapter discusses the methodology part. The fourth chapter is about presentation, analysis, interpretation and discussion of the findings and the last chapter consists of summary, conclusion and recommendation parts.

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## **Chapter Two**

### **Review of Related Literature**

This chapter contains concepts and theories regarding factors affecting purchase decision of OTC medicines, and consumers purchase decision by which the researcher reviews earlier studies on the subject matter of the study. This chapter starts by introducing the concept of consumers buying behavior, and then clearly describes factors affecting consumers purchase decision of OTC medicines. In addition, based on previous related literatures, the conceptual framework of the study together with the hypothesis will be formulated.

#### **2.1. Theoretical Literature**

The aim of marketing is to meet and satisfy target customers' needs and wants. The field of consumer behavior studies how individuals, groups, and organizations select, buy, use, and dispose of goods, services, ideas, or experiences to satisfy their needs and desires. Understanding the behavior of consumers before they made purchase decision will help for product manufacturers and service providers to develop strategies in line with customers' actions. Particularly knowing what makes customers to prefer between brands will make the manufacturer to adapt strategies based on the influential factors. Unable to analyze the antecedents hinder companies from being competitive. Hence, understanding the behavior of consumers specially the antecedents of brand preference has to be a critical issue and concern for strategy developers (Belch and Belch, 2003).

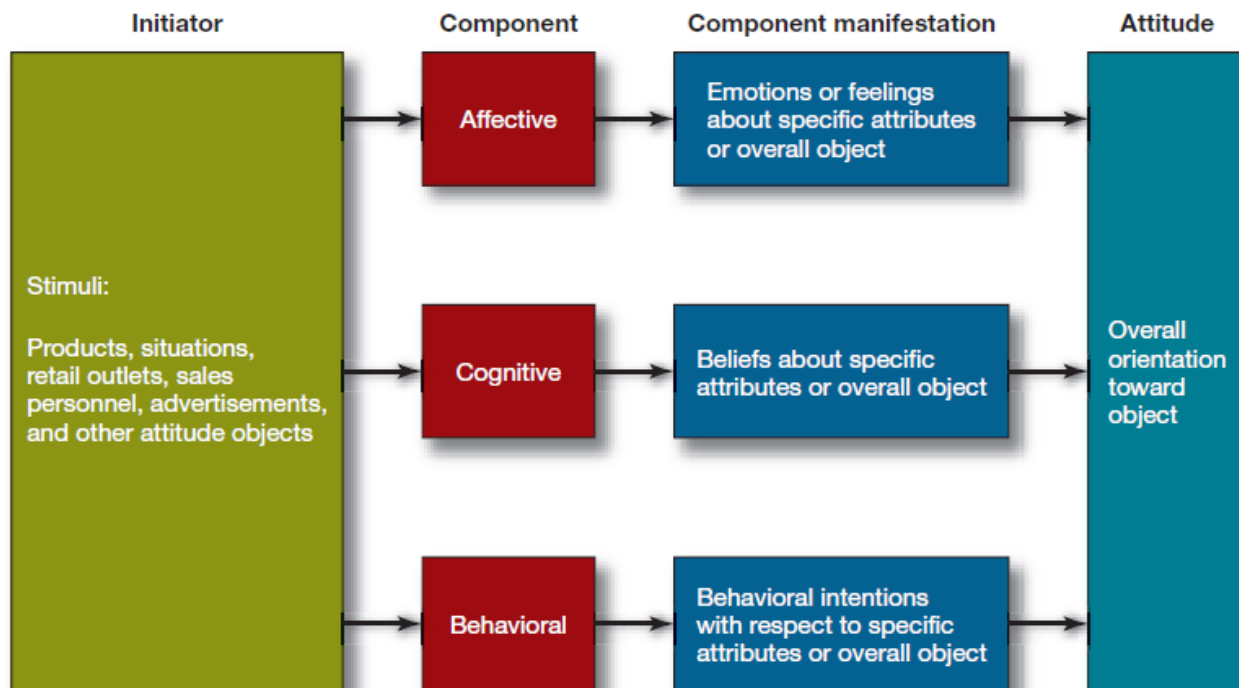
##### **2.1.1 Tri-component Attitude Model**

Successful marketers use both rigorous scientific procedures and more intuitive methods to study customers and uncover clues for developing new products, product features, prices, channels, messages, and other marketing mix elements (Kotler and Armstrong, 2012).

Most OTC medicine purchases would be considered as low involvement goods that would require simple decision-making. The assumption is that a purchase act is preceded by a sequence

of mental information processing. This involves a cognitive function in forming beliefs, an emotional (affective) component in developing positive or negative feeling, and a behavioral (response tendencies) through being motivated to select and buy (Gibler, et al., 1998). Therefore; Over- the- counter medicine consumers' characteristics and choice determinants can be explained by tri-component attitude model which shows the interaction among cognitive, affective and behavior of consumers towards the final purchase decision of specific brand choice of OTC medicine will be considered as a framework for this study.

An attitude is an enduring organization of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of our environment. It is a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object. Thus, an attitude is the way one thinks, feels, and acts toward some aspect of his or her environment, such as a retail store, television program, or product (Belch and Belch, 2003).



**Figure 2.1:** *Tri- Components Attitude Model and its Manifestations* (Source: Hawkins and Mothersbaugh, 2010, p 393)

---

### **a. Cognitive Component**

Solomon, et al. (2006), Belch and Belch (2003), and Kotler and Kotler and Armstrong (2012) explain that the cognitive component consists of a consumer's beliefs about an object. For most attitude objects, people have a number of beliefs. The total configuration of beliefs about the brand of the product represents the cognitive component of an attitude toward the product. Beliefs can be about the emotional benefits of owning or using a product (one can believe it would be exciting to own or drive a convertible) as well as about objective features. Many beliefs about attributes are evaluative in nature; for example, high gas mileage, attractive styling, and reliable performance are generally viewed as positive beliefs. This brings up the distinction between a feature and a benefit, both of which are beliefs. The more positive beliefs associated with a brand, the more positive each belief is, and the easier it is for the individual to recall the beliefs, the more favorable the overall cognitive component is presumed to be.

### **b. Affective Component**

Feelings or emotional reactions to an object represent the affective component of an attitude. A consumer who states "I like a product" is expressing the results of an emotional or affective evaluation of the product. This overall evaluation may be simply a vague, general feeling developed without cognitive information or beliefs about the product. Or it may be the result of several evaluations of the product's performance on each of several attributes (Belch and Belch, 2003).

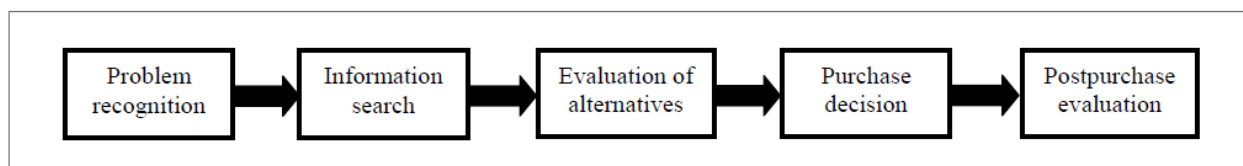
Marketers are increasingly turning their attention to the affective or "feeling" component of attitudes to provide a richer understanding of attitudes than that based solely on the cognitive or "thinking" component. As a consequence, marketers now commonly distinguish utilitarian or functional benefits and attitudes from hedonic or emotional benefits and attitudes. In addition, marketers are beginning to consider both form and function in product designs and focus considerable attention on the aesthetic aspects of design (appearance, sensory experience) (Belch and Belch, 2003).

### c. Behavioral Component

The behavioral component of an attitude is one's tendency to respond in a certain manner toward an object or activity. A series of decisions to purchase or not purchase a product or to recommend it or other brands to friends would reflect the behavioral component. Brand interest, as represented by tendencies to seek out the brand on store shelves or search for brand information, also reflects the behavioral component. The behavioral component provides response tendencies or behavioral intentions. Actual behaviors reflect these intentions as they are modified by the situation in which the behavior will occur (Belch and Belch, 2003).

#### 2.1.2 Consumer Purchase Decision Process

According to Furaiji F., Łatuszyńska M., and Wawrzyniak A. (2012) and Solomon, et al. (2006), consumers generally go through a five-stage of decision-making process whenever they make a purchase. The model implies that customers pass through all of the stages in every purchase. However, in more routine purchases, customers frequently omit or reverse some of the stages. This is summarized with Fig. 2.



**Figure 2.2:** Purchase Decision Process (Source: Furaiji et.al. 2012, p.80)

#### a. Problem Recognition

The buying process begins with problem recognition, which occurs when the consumer perceives a need and becomes motivated to solve the problem. At this stage, the buyer recognizes a problem or need or responds to a marketing stimulus. Next, the consumer needs to decide how much information (if any) is required to make the decision. If the need is strong and a product or service that meets the need is easily available, a purchasing decision is likely to be made immediately. If this is not the case, the information search process begins (Belch and Belch, 2003).

## **b. Information Search**

According to Kotler and Armstrong (2012), the second stage of consumer decision-making process is information search. Once consumers perceive a problem or need that can be satisfied by the purchase of a product or service, they begin to search for information needed to make a purchase decision. The initial search effort often consists of an attempt to scan information stored in memory to recall past experiences and/or knowledge regarding various purchase alternatives. This information retrieval is referred to as internal search. For many routine, repetitive purchases, previously acquired information that is stored in memory (such as past performance or outcomes from using a brand) is sufficient for comparing alternatives and making a choice.

If the internal search does not yield enough information, the consumer will seek additional information by engaging in external search from *personal sources* (family and friends), *commercial sources* (advertising, retailers, and packaging), and *public sources* (newspapers, magazines, radio, television, and Internet). Determining how much and which sources of external information to use involves several factors, including the importance of the purchase decision, the effort needed to acquire information, the amount of past experience relevant, the degree of perceived risk associated with the purchase, and the time available. It is worth noting that marketers today have a greater degree of control over the information that is provided (or is not provided) to consumers and the manner in which this information is presented (Kotler and Armstrong, 2012).

## **c. Alternative Evaluation**

After acquiring information during the information search stage of the decision process, the consumer moves to alternative evaluation. In this stage, the consumer compares the various brands or products and services s/he has identified as being capable of solving the consumption problem and satisfying the needs or motives that initiated the decision process. An important determinant of the extent of the evaluation is whether the customer feels “involved” in the product. A buyer's level of involvement determines why s/he is motivated to seek information about a particular product or brand while virtually ignoring others. The involvement level, as well as

other factors, affects an individual's choice of one of three types of consumer buying behavior: routine response behavior, limited decision making, and extended decision making (Pride & Ferrell, 2007).

A consumer uses routine response behavior when buying frequently purchased, low-cost items that demand very little search-and-decision effort (e.g., milk, eggs, bread or socks). Customers spend very little time deciding whether to purchase these items and do not typically need to read reviews or consult with friends for their opinions before making routine purchases. However, when confronted with 'ethical' products, consumers often become more involved, and this results in a more extensive information search (Carrigan & Attalla, 2001; Zander & Hamm, 2011). These are usually small purchases, on the lower end of the pricing spectrum. When buying such items, consumers may prefer a particular brand but are familiar with several brands in the product class and view more than one as being acceptable. Typically, low-involvement products are bought almost automatically. Limited decision making is a combination of an extensive purchase decision and a routine one. Consumers who participate in this type of buyer behavior typically know what type of product they want but are attempting to select a brand. Purchasing clothing is a good example of how limited decision making works.

The most complex type of buying behavior, extended decision making, occurs when purchasing unfamiliar, expensive, or infrequently purchased products (e.g., a computer, television, car or house). Consumers spend substantial amounts of time researching a large number of potential options before they buy. They speak with trusted friends, family, colleagues and sales professionals and read reviews and ratings online and in consumer magazines. Consumers participating in an extended decision-making process typically take more time to make a final purchase decision and spend more time researching their options. Many of these consumers experience cognitive dissonance. Extended decision making is frequently used for purchasing high-involvement products (Kotler and Armstrong, 2012).

#### **d. Purchase Decision**

At some point in the buying process, the consumer must stop searching for and evaluating information about alternative brands in the evoked set and makes a purchase decision. As an

outcome of the alternative evaluation stage, the consumer may develop a purchase intention or predisposition to buy a certain brand. Purchase intentions are generally based on a matching of purchase motives with attributes or characteristics of brands under consideration. A purchase decision is not the same as an actual purchase. Once a consumer chooses which brand to buy, he or she must still implement the decision and make the actual purchase. Additional decisions may be needed, such as when to buy, where to buy, and how much money to spend. Purchase decisions for nondurable, convenience items like over-the-counter medicines take place in the pharmacy, almost simultaneous with the purchase (Belch and Belch, 2003).

#### **e. Post-purchase Evaluation**

The consumer decision process does not end with the purchase. After using the product or service, the consumer compares the level of performance with expectations and is either satisfied or dissatisfied. Satisfaction occurs when the consumer's expectations are either met or exceeded; dissatisfaction results when performance is below expectations. The post-purchase evaluation process is important because the feedback acquired from actual use of a product will influence the likelihood of future purchases. Positive performance means the brand is retained in the evoked set and increases the likelihood it will be purchased again. Unfavorable outcomes may lead the consumer to form negative attitudes toward the brand, lessening the likelihood it will be purchased again or even eliminating it from the consumer's evoked set (Solomon, et al., 2006).

Accordingly, before deciding to buy specific brand of over-the-counter medicine, consumers will go through several stages such as the introduction of a problem or a symptom of disease, then find the appropriate information on drug indications, and evaluate alternatives to these drugs on the market, and finally decided that the right medication that will be used. When consumers search for information about the drug, some consumers will be interested to find out as much and are very concerned about several types and brands of drugs for the same indication. For other consumers who demand the same drug the situation was not same. This is related to the involvement of consumers where the consumers who perceive that a product is said to be more important personally involved (Kotler and Keller, 2012). After buying the drug, consumers will

evaluate whether to recover unreachable expectations of the drug chosen and realized in the form of feeling satisfied or not satisfied (Kotler, Wong, Saunders, & Armstrong, 2005).

### **2.1.3. Factors Affecting Consumer Purchase Decision of OTC Medicines**

Over-the-Counter medicines a group of pharmaceuticals products that many countries consider them quite safe and can be used without any intervention of a doctor and can be purchased from drug retail outlets (pharmacies, drug stores and rural drug vendors). Over-the-Counter medications are widely viewed by medical professionals as both safe and effective when used appropriately. Additionally, these medicines provide benefits to consumers in the form of savings stemming from fewer doctors' visits, less time away from work and relatively lower cost than prescription medicines (Cîrstea, Teselios, and Iancu, 2017).

Consumers are responsible for decisions about drug use, including recognition of the appropriate indication, appropriate doses regimens with respect to the amount, frequency, and duration of use, and consult an expert if the side effects appeared, or if the condition underlying does not respond or worse while they use of over-the-counter medicines (Brass, Lofstedt, and Renn, et al., 2011). In addition, the professional advice that pharmacy customers are offered by the pharmaceutical staff provide them with accurate information about medicines. Customers can get advice on how to use the medicines correctly, how long they should use a medicine, how compatible some medicines are with one another, how the medicine will affect the user and when to seek help from a doctor. This helps to prevent incorrect use, misuse and even unnecessary use of medicinal products (Brass, et al., 2011).

According to Azimi and Shabani (2016), one of the important issues in the study and identification of consumer behavior is the process of purchase decision. Most of the organizations which study the purchase behavior of consumers attempt to gain information about what consumers buy and also the reason, number, type and place of their purchase. However, unlike the type, number and place of purchase, it is not an easy task to find information about the reasons of consumer or buyer's purchase behavior, because the answer to this question is in the mind of consumer or buyer. Based related literatures, the researcher identified five factors that mainly affect consumers' purchase decision of Over-the-counter medicines. These are;

pharmacist' recommendation, families' and friends' recommendation, past experience, country of origin and the price of OTC medicine.

### **i. Pharmacist's Recommendation**

According to Villako, et al. (2012), the role of the pharmacist in giving advice concerning OTC medicines and self-medication has increased during last decades. One major role of the pharmacist in pharmaceutical care is as a self-care consultant, a term introduced to describe the role of the community- based pharmacist who interfaces with consumers requesting health information, advice, or counseling. As self-care consultants, pharmacists should be functioning as consumer advocates in health-related matters. This includes assisting in selecting OTC products' dosages and forms that are safe and effective for achieving specific health outcomes (Kotecki, 2002).

In addition, according to Kotecki (2002), today, the pharmacist is believed to be uniquely qualified to serve the public's interest in OTC product selection. As acknowledged drug experts, pharmacists can play a major role in providing information, advice, and counseling for non-prescription drugs. In addition, the pharmacist is considered to be the most accessible and trustworthy health care professional.

Major and Vincze (2010) suggested that with the growth of the non-prescription drug market and improvements in the health culture of the population, the function of the pharmacy may also change; it may develop into a health care information and educational centre. This new emphasis implies a shift in the task of pharmacists towards an educational and counseling role. The pharmacy may become the first and last link to patients, where they can still be directed, helped, supported and educated concerning medication choices. The pharmacist is the individual who can do this with competence. The population expects information concerning medications to be communicated from the pharmacist in an understandable way. With this knowledge, the pharmacist becomes the gatekeeper who is responsible for recommending the appropriate health care resources to each patient.

Other scholars, Wieringa, Reber, and Leeftang (2015) added on the role of pharmacists with respect to OTC medicines is that to ensure, as far as possible, medicines are sold within the conditions of the OTC license, that the potential for drug interactions (with both other OTC and prescribed medicines) is assessed and avoided, and that people with contra-indications are not sold the preparations. Many patients seeking an OTC solution to their health problems may prefer to receive guidance from a health-care provider (i.e. pharmacist) to reduce their perceived post-purchase risk.

## **ii. Families' and Friends' Recommendation**

According to Takhire and Joorshari (2015), word-of-mouth (WOM) is described as costumers' interpersonal communication about products or services, and it is a commonplace that WOM plays a key role in influencing consumer attitudes, tendencies and behaviors. In addition, they suggested that WOM has major impact on consumer choice and post purchase perceptions. The information about the brand has been used by the other group members also affect the decision to skip the existing brand and to move on to the purchase those brand that is using by other group members. Cîrstea, et al. (2017) also believed that the purchase decision is influenced by two important factors medical or pharmacist advice and the perceived value of information, which can be from reference groups. According to Cîrstea, et al. (2017), reference groups are primarily people who have purchased / used that drug, as well as colleagues, friends or family.

## **iii. Country of Origin**

According to Saydan (2013), country-of-origin is one of the most important factors that significantly influence the purchasing decision of consumers. It is defined as comprising the subjective perceptions of a consumer about the products that provide an important observation that such belief, ideas and impressions before making buying decisions. Therefore, the country of origin "made in label" has been used as an important function in meeting with today's competitive and global environment in order to increase product sales.

Laroche, Papadopoulos, Heslop, and Mourali, et al., (2005) also revealed that a product's country of origin influences consumers' evaluation of it. The fact that a product's origin matters

to consumers has significant strategic implications for firms engaged in both domestic and international businesses. Findings from such types of studies can provide valuable strategic information to firms exporting their products, manufacturing abroad, and/or competing in their home markets against foreign companies. The relevance of country of origin research becomes even more salient when one considers the increasing trend toward free trade and the high pace at which national economies are turning global. In addition, Pappu, Quester, and Cooksey, et al. (2006) in their study suggested that country of origin of a product is an important marketing element known to influence consumer behavior. The country of origin of a product is an extrinsic cue which similar to brand name, is known to influence consumers' perceptions and to lead consumers to cognitive elaboration.

Finally, familiarity with the name or brand has also been reported in pharmacy is an important factor influencing purchases of OTC medicines. This is because medicine's country of origin, which was associated with the manufacturing company's background, as well as by the manufacturing company have valued higher than the product's advertisement and packaging (Kevrekidis, et al., 2018).

#### **iv. Previous Experience**

Because the effect of a drug on health conditions can be learned only through use, prior experience with and knowledge about the product play significant roles in purchase decisions. Due to the difficulty to obtain such information about the drug's quality, patients are quite reluctant to switch once they have found a drug that works for them (Wieringa, et al., 2015).

Consumers' purchasing experience involves the internal and external memory which would play an important role in the purchasing process (Bettman, 1979). Internal memory comes from the actual experience consumers have with the goods or service while external memory is originated from information related to the goods or service. The experience of purchasing last longer and will remain in consumers' mindset. Therefore, they will immediately start evaluating on the items they purchased and the result of the purchasing experience toward the items will be kept in their mindset for a very long time (Keller, 2001).

According to Shohel, et al. (2013), direct experience with the product, price range and brand reliance are important determinants of repetitive purchase behavior on OTC drugs. Dadhich & Dixit (2017) also reflected that familiarity with the OTC brand is the key factor in determining the repetitive purchase of OTC product.

Lastly, according to Kevrekidis, et al. (2018), decision-making could originate from consumers' existing knowledge or experience. The emphasis on previous experience was supported by the reported tendency of the participants to often pick a specific product from a certain category of medicines, which implies that they are loyal and long-term user of certain medicines.

#### **v. Price**

According to Mamun, Rahman, and Robel (2014), nowadays, customers are well informed about product or service alternatives, product benefits, features, qualities and prices through advertising, family members, peer groups, opinion leaders, social networks, public information sources, and newspapers. Customers are not too blind to buy a product without searching information about a product or service. Actually, consumers are sensitive to the prices because they want to get maximum benefits of using their money and time. That means, consumers are very rational to judge what they are getting from buying a product or service in exchange of their payments for it. Other scholars, Gogoi (2013), and Kevrekidis, et al. (2018) also described that customers always think that purchase with a low cost, simple packaging and little-known product is a high risk since the quality of these products is not trustable.

Likewise, Asamoah and Chovancova (2011) suggested that consumers are price takers and accept prices at face value or as given by the producers. Marketers acknowledge that consumers are vigorously assess price information, decoding prices in terms of their knowledge from previous purchasing experience, formal communications (advertising and sales promotions), informal communications (friends, colleagues, or family members), and point-of-purchase or online resources.

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## **2.2. Empirical Literature**

In the study conducted on community pharmacy customer segmentation based on factors influencing their selection of pharmacy and over-the-counter medicines, in Greece, the most important factors influencing the purchase of OTC medicines were; experience of previous use (4.54), the pharmacist's opinion (4.31), price (4.02), drug's country of origin (3.63), manufacturing company (3.51), and followed by family's/friends' opinion (3.51). According to this study, packaging (2.87) and the product's advertisement (2.97) appeared to be the least important factors to impact their decisions when purchasing OTC medicines. In other words, the research indicated that respondents rated higher previous experience and pharmacist's opinion than remaining examined criteria (product's price, manufactory, country of origin, the advertisement and packaging) as influencing factor of their selection of pharmacy and over-the-counter medicines (Kevrekidis, et al., 2017).

Other scholars Haramiova, et al. (2017) in their study on Purchase of prescription and OTC medicines: factors influencing patients' expectations and satisfaction which was conducted in Slovakia; also showed that, recommendation by a pharmacist was the most important factor influencing the purchase of OTC medicines (88.2%) followed by price (58.6%) and recommendation by family and friends (53.2%). The impact of drug advertisement on purchase decisions was reported to be small (12.6%).

Talabă & Andrei (2010) in their study Facets of pharmacist's recommendation on over-the-counter market in Romania showed that experience of friends and relatives has a strong role in choosing vitamins, the power of personal example having a strong persuasive effect. Commercials, especially the ones on television, are high in the influence sources top, being considered a kind of television 'prospect' from which information is gathered before going to the pharmacy. Presentation catalogues and other written promoting materials, existing in pharmacies are also a source of information and influence to which many respondents appeal because, on numerous occasions, the pharmacist does not have the time or the patience to offer all the required information about vitamins.

The survey participants appreciated pharmacists' recommendations for OTC medicines. Price of medicines strongly affected 25% of pharmacy customers, but drug advertisements were considered with less influence for purchase decisions about medicines (Villako, et al., 2012).

From a study conducted in Romania on analysis of factors that influence OTC drugs purchasing Behavior (Cîrstea, et al., 2017), important factors in the consumers' decision making of OTC drugs were the choice of doctor, their own former experience, the pharmacist's advice and the information stated on the leaflet.

According to Boström (2011), consumers did rank and put in order of importance when they choose an OTC medicine; product brand or producer, company's country of origin, package design, pharmacist's opinion or recommendation, families' and friends' opinion or recommendation and finally product advertisement. The ranking goes from the most important to the least important. Of all the answers that give a ranking of number the most important, when choosing an OTC medicine, 49 % goes to the pharmacist's opinion or recommendation, 22 % goes to product brand or producer, 16 % to family's and friends' opinion or recommendation, 10 % to pharmaceutical company's country of origin, 2 % to product advertisement and 1 % to package design. A significant amount of 95 % of respondents indicates that they usually buy the same OTC medicine again.

Major and Vincze (2010) showed in their study which was conducted in Hungary on consumer habits and interests regarding non-prescription medications, respondents most commonly mentioned the following factors while they purchase non prescription medicines; the effect of the medication (26.0%), followed by price (22.0%), its expected side effects (18.0%) and how it should be taken (15.0%).

Other scholars Dadhich & Dixit (2017) in their study on consumer selection and buying behavior towards OTC medicine in Jaipur, India, shown those factors considered by consumer for choosing OTC medicine. Accordingly, 28.8% respondents opined that brand name was considered while selecting the OTC product, 25.6% respondents showed that they consider symptoms for which OTC medicine will be used, 16.9% respondent opined that dosage of OTC

medicine was important criteria for selecting OTC medicines whereas 11.9% and 10.6% responded towards price and packaging of OTC medicine.

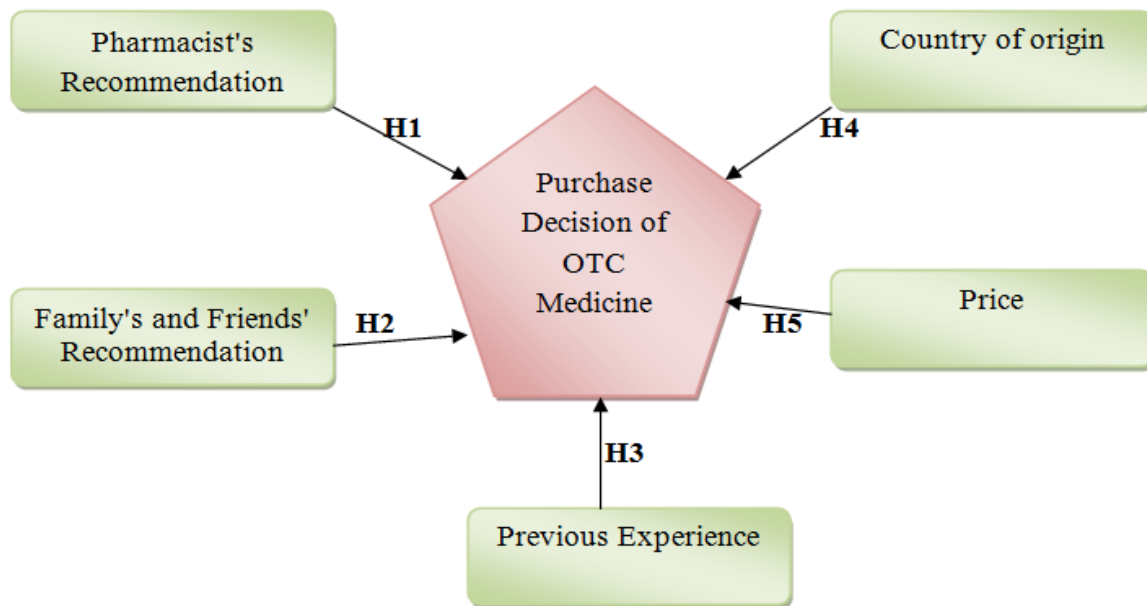
A study done by Yousif (2016) on the factors affecting on decision making to purchase medications without a prescription in Jordan, showed that the existence of a positive impact (for each of them) of medical examination prices, family members & friends, and the personal experience on decision to purchase medications without a prescription and the existence of a negative impact (for each of them) of pharmacist, and information on decision to purchase medications without a prescription.

According to the study conducted in Bangladesh by Shohel, et al. (2013), on investigation of consumer attitudes, intentions and brand loyal behavior on the OTC Drugs, the respondents were asked to find out the factors they consider when they purchase an OTC product. Their responses were 36% people who believe that trust of the company is an important consideration to buy an OTC drug. Besides, 46% people think that previous experience also matter and 18% respondents thought that word of mouth also play an important role.

## **2.3. Conceptual Framework**

### **2.3.1. Conceptual Model**

Based on the above related literatures and concepts the following conceptual frame work was developed.



**Figure 2.3: Conceptual Framework** [Source: Cîrstea, et al. (2017), Boström (2011), Major and Vincze (2010), Yousif (2016), Haramiova, et al. (2017), Shohel, et al. (2013), Dadhich & Dixit (2017), Kevrekidis, et al. (2017), Talabă & Andrei (2010), and Villako, et al. (2012)]

### 2.3.2. Research Hypothesis

**H1:** Pharmacist's recommendation has a positive and significant effect on consumer purchase decision of OTC medicines.

**H2:** Family's and friends' recommendation have positive and significant effect on consumer purchase decision of OTC medicines.

**H3:** Previous experience has positive and significant effect on consumer purchase decision of OTC medicines.

**H4:** Country of origin has positive and significant effect on consumer purchase decision of OTC medicines.

**H5:** Price has positive and significant effect on consumer purchase decision of OTC medicines.

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## **Chapter Three**

### **Research Methodology**

This chapter presents description of study area, the research approach, research design, data types and sources, population, sampling technique and sample size determination, data collection procedures, data analysis techniques, ethical considerations, reliability and validity.

#### **3.1. Description of the Study Area**

The study was conducted from March 01, 2018 to April 27, 2018 at Addis Ababa, the capital city of Ethiopia. Addis Ababa has 10 Sub cities and 116 Woredas and covers an area of 540 square kilometers. Addis Ababa is the largest city in the country. The total projected population of the city is 3,384,569 with annual growth rate of 3.8%. There are 662,728 households in 628,984 housing units (CSA, 2007). As per the Food, Medicine, health Care Administration and control Authority (FMHACA) of the city, there are 480 community pharmacies in the city.

As a capital city, Addis Ababa is the center of the country's trade activities including the pharmaceutical market. The main reason why the researcher selected Addis Ababa as study area was that the population comes from different regions of Ethiopia; they can represent different culture, religion, political, commercial and economical backgrounds. As a result, the finding of the study can be generalized at country level.

#### **3.2. Research Approach**

This research employed a quantitative research approach to test the effect of the various factors on consumer purchase decision of OTC medicines. Quantitative research approach involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion. In general, quantitative research is the systematic and scientific investigation of quantitative properties and phenomena and relationships (Bhattacharjee, 2012).

The objective of quantitative research is to develop and employ mathematical models, theories and hypotheses pertaining to natural phenomena. It usually starts a general statement proposing a

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general relationship between variables. Quantitative researchers favor methods such as surveys and experiments, and will attempt to test hypotheses or statements with a view to infer from the particular to the general (Bhattacharjee, 2012).

### **3.3. Research Design**

To achieve the objective of the study, the researcher used both descriptive and explanatory research design to investigate those factors affecting consumers purchase decision of OTC medicine, and the relationship between each independent and dependent variables.

According to Kothari (2004), a social research can be divided in three types, depending on its purposes. (1) Exploratory research; much of social research is conducted to explore a topic, that is, to start to familiarize a researcher with that topic. This approach typically occurs when a researcher examines a new interest or when the subject of study itself is relatively new. (2) Descriptive research; in this research the researcher observes and then describes what was observed. Because scientific observation is careful and deliberate, however, scientific descriptions are typically more accurate and precise than are casual ones. (3) Explanatory research; is used to investigate relationships between certain causes and effects. Hypotheses are formed to reject or support the relationship. Descriptive studies answer questions of what, where, when, and how; explanatory studies address questions of why.

### **3.4. Data Types and Source**

Both primary and secondary data was collected from various sources using data gathering instruments to make the study complete and achieve its predetermined objectives. All sample respondents are the primary source of data while available documents such as books, past literature reviews and relevant articles are used as secondary data.

### **3.5. Population**

There are two types of population used in this study. Firstly, this study targeted community pharmacies to intercept the study participants. It is mainly because, community pharmacists are

most accessible to the public, an opportunity to become more than medication dispensers. They supply medicines in accordance with a prescription or, when legally permitted, sell them without a prescription. Unlike community pharmacies, the businesses of hospital pharmacies are depending on prescription only medicines which are from respective hospital where they are in (Melton and Lai, 2017). According to the data obtained from Addis Ababa Food, Medicine, and Health care Administration and Control Authority (AAFMHACA), there are a total of 480 community pharmacies found in Addis Ababa (Internal document contacted on February 26/2018). Secondly, this study considered all consumers of OTC medicines from community pharmacies as target population.

### **3.5.1 Source Population**

The source populations for this study were all consumers of OTC medicines from community pharmacies in Ethiopia.

### **3.5.2 Target Population**

The target populations for the study were all consumers of over the counter medicines of age >18 years from community pharmacies. The list of all community pharmacies was used as a frame to select sample community pharmacies. The list was obtained from Addis Ababa Food, Medicine, and Healthcare Administration and Control Authority (AAFMHACA). A list of each sample community pharmacy was used as a frame to intercept the study participants at convenience.

## **3.6. Sampling Techniques**

The researcher used a multi stage sampling technique; first, since there is a sampling frame of community pharmacies in the authorities, simple random sampling technique was used to select a representative sample population of community pharmacies. In the second stage a convenience sampling technique was used to have a representative sample population of the study subjects; i.e. over- the- counter medicine consumers. This is because the total populations of over- the counter medicines consumers from community pharmacies of Addis Ababa are too large and are

considered to be infinite and it is difficult to estimate the probability that each respondent in the population has of being included in the sample.

### 3.7. Sample Size Determination

Since the number of community pharmacies found in Addis Ababa are finite (480) and there is a sample frame, using the formula for finite population (Kothari, 2004), **213** community pharmacies were taken as sample size in the first stage.

$$n = \frac{z^2 \cdot p \cdot q \cdot N}{e^2 N - 1 + z^2 \cdot p \cdot q}$$

- ✓  $n$  = required sample size
- ✓  $z$  = the value of standard variate at a given confidence level (95% CI) 1.96
- ✓  $N$  = the population size
- ✓  $p$  = the population proportion (0 .50)
- ✓  $q$  = 1-p
- ✓  $e$  = acceptance error (0.05)

As it was discussed in the above, the total populations of over- the counter medicines consumers from community pharmacies in Addis Ababa are too large and are considered to be infinite. And hence, it is difficult to estimate the probability that each respondent in the population has of being included in the sample. Therefore; considering 95% confidence interval and 5% margin of error, using infinite population sampling formula (Kothari, 2004), a minimum sample of 384 consumers of OTC medicines was found to be sufficient as the sample size.

$$n = \frac{z^2 \cdot p \cdot q}{e^2} \qquad ss = \frac{1.96^2 * 0.5 * 0.5}{(0.05)^2} = 384$$

Where

- ✓  $Ss/n$ = sample size
- ✓  $z$ = the standardized value
- ✓  $p$ = level of variability
- ✓  $q$ =1-p

✓  $e$  = the level of precision

But considering minor adjustment for maintaining uniformity in the field operation, a final sample size of **426** OTC medicine consumers were decided to be optimum.

### **3.8. Data Collection Procedure**

Data collection was conducted by a self administered questionnaire. The questionnaire was carefully developed in a way that used to measure the impact of the proposed independent variables on the dependent variable. This self-administered questionnaire was developed with a five point Likert scale. The type of questions, form, wording and sequences were also considered carefully.

The questionnaire had two sections. The first section covered the demographic profile of the participants like age, sex, monthly income and educational level. The second section was structured on a Likert scale of 1-5 to show their degree of agreement or disagreement to the sentences about the constructs under study. The questionnaire was adopted from previous studies about the same construct under study and was modified to the OTC medicine without modifying the concepts in the construct. Since the study participants were over the counter medicine consumers of community pharmacies, who are with different educational background, it was necessary to translate the questionnaire into Amharic language before distributing the questionnaire to help easy comprehension and accurate response of respondents.

The questionnaire was evenly distributed throughout randomly selected community pharmacies from first week of March 2018 to second week of April 2018 and consumers were intercepted at the selected community pharmacies immediately after an actual purchase of OTC medicine. The times 12:00PM to 1:30 PM and 5:00 PM to 8:00PM in the afternoon were chosen since the number of consumers at community pharmacies increases at these times of the day, which will enable the researcher to obtain responses from variety of customers.

### **3. 9. Study Variables**

#### **3.9.1 Dependant Variable**

- ✓ Purchase Decision

#### **3.9.2 Independent Variables**

- ✓ Pharmacist's recommendation
- ✓ Family's and fiends' recommendation
- ✓ Country of origin
- ✓ Past experience
- ✓ Price

### **3.10 Ethical Consideration**

An official letter from Addis Ababa University School of Commerce department of Marketing Management was written to community pharmacies to get permission. In addition the entire study participant was informed about the purpose of the study and finally their oral consent was obtained before giving the questioner. The information provided by each respondent has been kept confidential and will only be used for research purpose.

### **3.11. Data Analysis**

After the data file was checked and adjusted, the coding phase was followed and analysis of the variables' reliability and validity of the constructs was verified. The finding of the study was analyzed by using the SPSS version 23 program. Consequently, the demographic characteristics of the respondents were coded first. They include male coded as 1 and female coded as 2; other demographic factors were coded from 1 to 5 in the case of age; and from 1 to 6 in the case of educational level and monthly income.

The second part of the questionnaire, which dealt with the variables; pharmacist's opinion and recommendation, families' and friend's opinion and recommendation, past experience, country of origin and price were coded with a five point Likert's scale. In this scale, strongly disagree

was coded as 1 and strongly agree was coded as 5. The responses in between were coded as 2, 3 and 4. Finally, descriptive statistics for quantitative data (both univariate; frequency, and multivariate analysis, correlation) were analyzed and then linear regression analysis was done to examine the interdependence between dependant and independent variables.

### **3.12. Reliability and Validity**

To examine the reliability of this study Cronbach's alphas was calculated for each variable by the researcher using SPSS. Accordingly, a Cronbach's alpha value of  $> 0.7$  indicates a considerably high reliability. Therefore; Cronbach's Alpha values  $> 0.7$  will be used to indicate the higher degree of internal consistency in this study. According to Kothari (2004), reliability is a measure of how stable, dependable, trustworthy and consistent a test is in measuring the same thing each time. Most importantly, the data, the researcher analyzed should map to the research questions the researcher has tried to answer. This sounds obvious but is often overlooked or ignored because it can be inconvenient. Optimally, this means that the outcome measure should accurately reflect the phenomenon of interest; the model should include all relevant predictors, and generalize to the cases to which it would be applied.

Content validity is the extent to which a measuring instrument provides adequate coverage of the topic under study. If the instrument contains a representative sample of the universe, the content validity is good. Its determination is primarily judgmental and intuitive. It can also be determined by using a panel of persons who shall judge how well the measuring instrument meets the standards, but there is no numerical way to express it (Kothari, 2004). The validity of this research, as it was stated in the conceptual framework part, all the variables are adopted from previous research works and to increase the degree of clarity & understandability the English version questionnaire has translated into Amharic.

## Chapter Four

### Data Analysis and Discussion

Statistical Package for Social Science (SPSS) software version 23.0 was used for data analysis. A reliability test was done by observing the Cronbach's Alpha value with the cut-off point of 0.60. A correlation and regression analysis was conducted to examine the influence of independent variables on consumers' purchase decision of over-the-counter medicines.

#### 4.1 Findings of Quantitative Analysis

Out of 426 questionnaires distributed to targeted respondents, only 409 were complete, valid and appropriate for analysis, which represent 96 % valid response rate.

##### 4.1.1 Reliability Analysis

Reliabilities of the scales were checked after coding and entry of data into SPSS version 23.0. Cronbach's alpha coefficients were computed for each scale to determine the internal consistency reliability of the instruments used in the study. According to Malhotra & Birks (2007), the value of 0.60 is considered as in the lower limit of acceptability for Cronbach's alpha. All variables in this study have Cronbach's alpha value above 0.60 and the overall alpha value is 0.894 which shows the highly acceptability of the measurement scales used.

**Table 4.1:** Summary of Reliability Analysis

<b>Reliability Statistics</b>		
	Cronbach's Alpha	N of Items
Pharmacists recommendation	.857	4
Families' and friends' recommendation	.765	5
Past experience	.770	4
Country of origin	.885	5
Price	.711	5
Purchase decision	.770	5

**Source:** Survey Result (May, 2018)

## 4.2 Demographic Characteristics

As the below Table 4.2 shows, out of 409 respondents, 213 (52.1%) of them were females and the remaining 196 (47.9%) of the respondents were males. Regarding to age, 164 (40.1%) of the respondents were in the age group of 18- 30 years old while only 16(3.9%) of the respondents were above 60 years old. This implies that most of OTC medicine consumers were young and adults so that they can be easily addressed by pharmaceutical marketing promotional activities. With respect to educational level, 126(30.8%) respondents were Bachelor's degree holders while there were only 12 (2.9%) of respondents who have no formal educational background. From the finding, since most of respondents were educated, the researcher concludes that the pharmaceuticals marketers can easily transfer product information and other promotional activities with different communication media. According to the finding, 161(39.4%) of the respondents have monthly income more than 5,000 birr/month while only 14(3.4%) of respondents have monthly income less than 1000birr/month.

**Table 4.2:** Demographic Characteristics; Sex, Age, Educational Level, and Monthly income

<i>Items</i>		<i>Frequency</i>	<i>Percent</i>
Age (Year)	18-30	164	40.1
	31-40	131	32.0
	41-50	64	15.6
	51-60	34	8.3
	>60	16	3.9
	Total	409	100.0
Sex	Male	196	47.9
	Female	213	52.1
	Total	409	100.0
Educational Level	No formal education	12	2.9
	Primary education	37	9.0
	Secondary education	64	15.6

Diploma	104	25.4
Degree	126	30.8
Masters degree & above	66	16.1
Total	409	100.0
Monthly Income (Birr) < 1000	14	3.4
1001- 2000	34	8.3
2001- 3000	41	10.0
3001- 4000	80	19.6
4001- 5000	79	19.3
>5000	161	39.4
Total	409	100.0

Source: Survey Result (May, 2018)

### 4.3 Descriptive Statistics of variables

Descriptive statistic of means and standard deviations were obtained from the independent and dependent variables. The descriptive analysis is used to look at the data collected and describe that information. Mean value provides the idea about the central tendency of the values of a variable. On the other hand, Standard deviation gives the idea about the dispersion of the values of a variable from its mean value.

All variables; pharmacists' recommendation, families' and friends' recommendation, previous experience, country of origin, price, and purchase decision have mean score above average and it shows consumers were considered all independent variables while they decide to purchase OTC medicines. The mean score for Pharmacists recommendation was higher than others. This indicates that respondents were more agreed that pharmacists' recommendation more influenced their purchase decision of OTC medicines.

**Table 4.3:** Descriptive Statistics of the variables

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation
Pharmacist recommendation	409	3.93	.819
Family and Friend recommendation	409	3.12	.828
Past Experience	409	3.21	.909
Country of Origin	409	3.15	.894
Price	409	3.30	.661
Purchase Decision	409	3.44	.617
Valid N (listwise)	409		

Source: Survey Result (May, 2018)

## 4.4. Inferential Analysis

### 4.4.1 Pearson Correlation Analysis

In order to determine the association between independent (pharmacists' recommendation, families' and friends' recommendation, past experience, country of origin, and price) and the dependent variable (purchase decision), the researcher used correlation analysis and Pearson correlation was computed. As a result, Table 4.4 shows the independent variables are significantly and positively correlated with dependent variable [pharmacists' recommendation ( $r=0.617$ ,  $p<.001$ ), families' and friends' recommendation ( $r=0.345$ ,  $p<.001$ ), previous experience ( $r=0.388$ ,  $p<.001$ ), country of origin ( $r=0.642$ ,  $p<.001$ ), and price ( $r=0.720$ ,  $p<.001$ )].

Among the independent variables, Price ( $r=0.720$ ), Country of origin ( $r=0.642$ ), and Pharmacists' recommendation ( $r=0.617$ ) have positive and significant correlation with purchase decision. This indicates that consumers were highly considered price, country of origin, and pharmacists' recommendation while they decided to purchase OTC medicines.

**Table 4.4:** Correlation between the independent variables and the dependent variable

		<b>Correlations</b>					
		Pharmacists recommenda tion	Families' & friends' recommenda tion	Past experien ce	Countr y of origin	Price	Purchas e decision
Pharmacists recommenda tion	Pearson Correlation Sig. (2- tailed) N	1  409	.283**  409	.284**  409	.163**  409	.401**  409	.617**  409
Families' & friends' recommenda tion	Pearson Correlation Sig. (2- tailed) N	.283**  409	1  409	.480**  409	.173**  409	.411**  409	.345**  409
Previous experience	Pearson Correlation Sig. (2- tailed) N	.284**  409	.480**  409	1  409	.304**  409	.295**  409	.388**  409
Country of origin	Pearson Correlation Sig. (2- tailed) N	.163**  409	.173**  409	.304**  409	1  409	.324**  409	.642**  409
Price	Pearson Correlation Sig. (2- tailed) N	.401**  409	.411**  409	.295**  409	.324**  409	1  409	.720**  409
Purchase Decision	Pearson Correlation Sig. (2- tailed) N	.617**  409	.345**  409	.388**  409	.642**  409	.720**  409	1  409

\*\* Correlation is significant at the 0.01 level (2-tailed).

**Source:** *Survey Result (May, 2018)*

#### **4.4.2 Assumption Testing for Multiple Regressions**

Meeting the assumptions of regression analysis is necessary to confirm that the obtained data was truly represented the sample and the researcher has obtained the best results (Hair, Anderson, Tatham, and Black, 1998). Three assumption tests were checked before regression analysis was undertaken. These are; Multi-collinearity, Linearity and Normality.

##### **4.4.2.1 Multi- Collinearity**

According to Ho (2006), the two most important conditions to be fulfilled before conducting regression analysis are the adequacy of the sample size and non- existence of correlation among the independent variables. The size of the sample has a direct effect on the statistical power of the significance testing in multiple regressions, which refers to the probability of detecting statistically significant R-square or a regression coefficient at a specified significance level. Ho (2006) also suggested that the sample size should be at least 20 times more than the number of independent variables, as a rule of thumb, in order to get the desired level of statistical power. Given this rule of thumb, the number of respondents used for this study 426 is over the required criteria.

The other important condition for regression analysis is that there should not be interrelationship among independent variables. The situation in which the independent/predictor variables are highly correlated is known as Multi- collinearity. When independent variables are multi-collinear, there is “overlap” or sharing of predictive power, which may lead to a situation where the regression model fits the data well, but none of the predictor variables has a significant effect in predicting the dependent variable (Ho, 2006).

According to HO (2006), the existence of multi- collinearity can be checked using the “Tolerance” and “Variance Inflation Factor (VIF)” values for each predictor. The tolerance value is an indication of the percentage of variance in one predictor that cannot be accounted for by the other predictors. The value of tolerance should be above 0.10 and any value lower than this

indicates the existence of multi-collinearity. On the other hand, VIF is computed as “1/tolerance,” and a VIF value greater than 10 indicates the existence of multi-collinearity (Saunders, Lewis, & Thornhill, 2009). For this particular study, as it can be seen from Table 4.5, both the values of tolerance and VIF calculated for each independent variable on both regression analyses fulfills the criteria discussed above, which indicate the non-existence of multi-collinearity.

**Table 4.5:** Multicollinearity problem test of VIF and tolerance

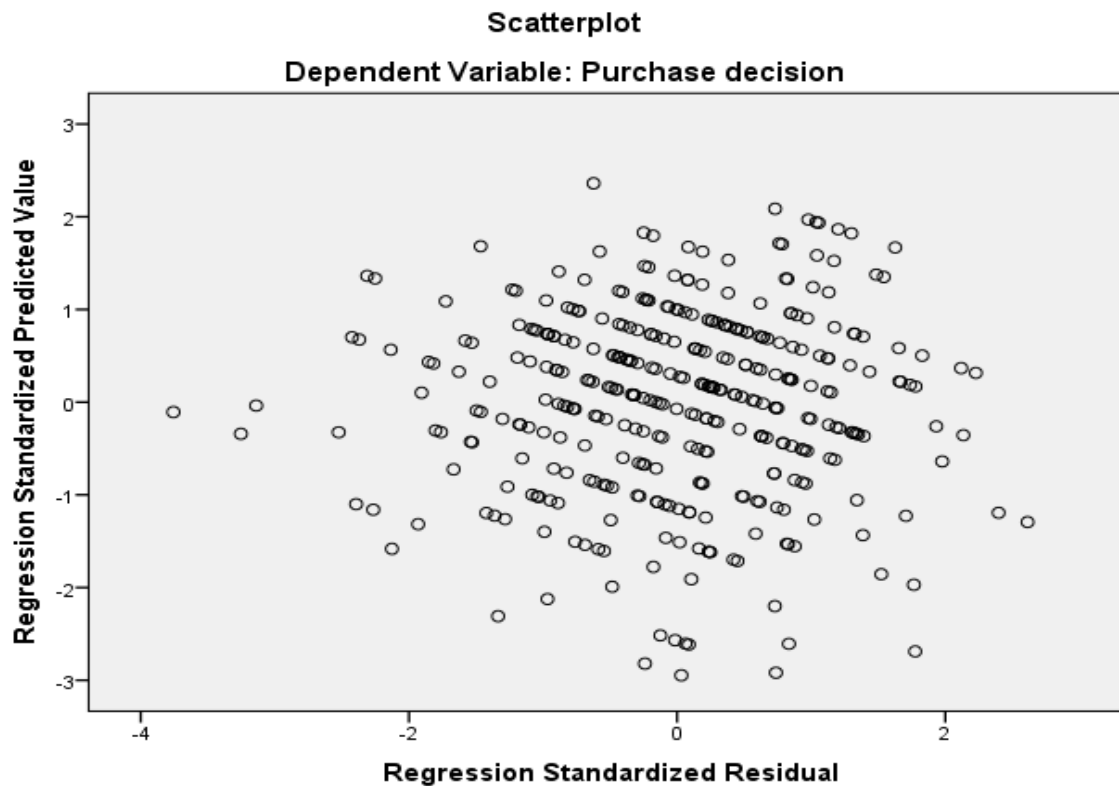
<b>Collinearity Diagnostics<sup>a</sup></b>		
Model	Collinearity Statistics	
	Tolerance	VIF
Pharmacist recommendation	.805	1.242
Family and Friend recommendation	.685	1.461
Past Experience	.703	1.423
Country of Origin	.845	1.183
Price	.693	1.442

a. Dependent Variable: Purchase Decision

**Source:** *Survey Result (May, 2018)*

#### **4.4.2.2 Linearity**

According to Hair, et al. (1998), the linearity of the relationship between the dependent and independent variable represent the degree to which the change in the dependent variable is associated with the independent variable. In a simple sense, linear models predict values falling in a straight line by having a constant unit change (\*slope) of the dependent variable for a constant unit change of the independent variable. Conventional regression analysis will underestimate the relationship when nonlinear relationships are present, i.e.,  $R^2$  underestimates the variance explained overall and the betas underestimate the importance of the variables involved in the non-linear relationship (Malhotra, and Birks, 2007). The scatter plot of standardized residuals versus the fitted values for the regression models is as follows.



**Figure 4.1:** Linearity scatter plot of regression standardized residual

Source: Survey Result (May, 2018)

#### 4.4.2.3 Normality of the Error Term Distribution

Normality refers to the shape of data distribution for an individual metric variable, and its correspondence to the normal distribution (Hair et al., 2003). For estimating normality, skewness and kurtosis information values were observed, and probability plots were also drawn. Skewness provides information regarding the symmetry of the distribution, whereas Kurtosis provides information regarding peakedness of the distribution (Pallant, 2001). According to Hair (2010), the most commonly acceptable value for (kurtosis/skewness) distribution is  $\pm 2.58$ . As Table 4.6 shows, all values of skewness and kurtosis for the transformed and standardized values have been found to be within the acceptable range.

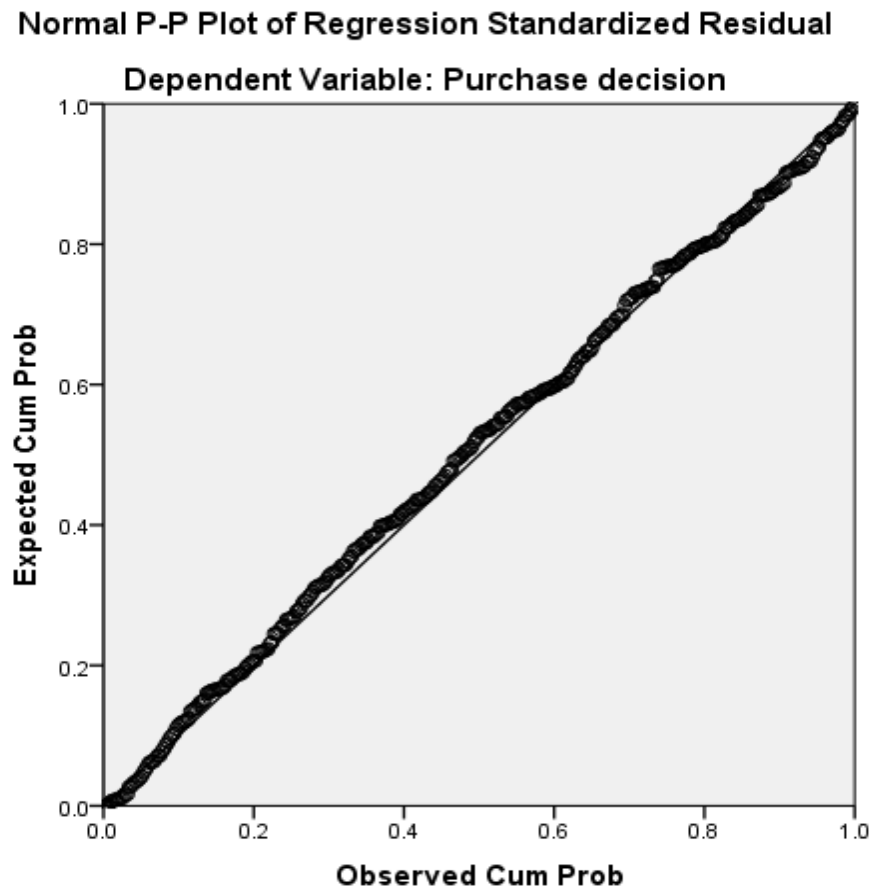
In addition, Malhotra and Birks (2007) propose that normal probability plots are often conducted as an informal means of assessing the non normality of a set of data. Hair et al. (1998) also

explain that the plots are different from residuals plots in that the standardized residuals are compared with the normal distribution. In general, the normal distribution makes a straight diagonal line, and the plotted residuals are compared with the diagonal. If a distribution is normal, the residual line will closely follow the diagonal (Hair, et al., 1998). The following graphs show that the P-P plots is a straight line which justifies the residuals was deemed to have a reasonably normal distribution, as suggested by Hair, et al. (1998).

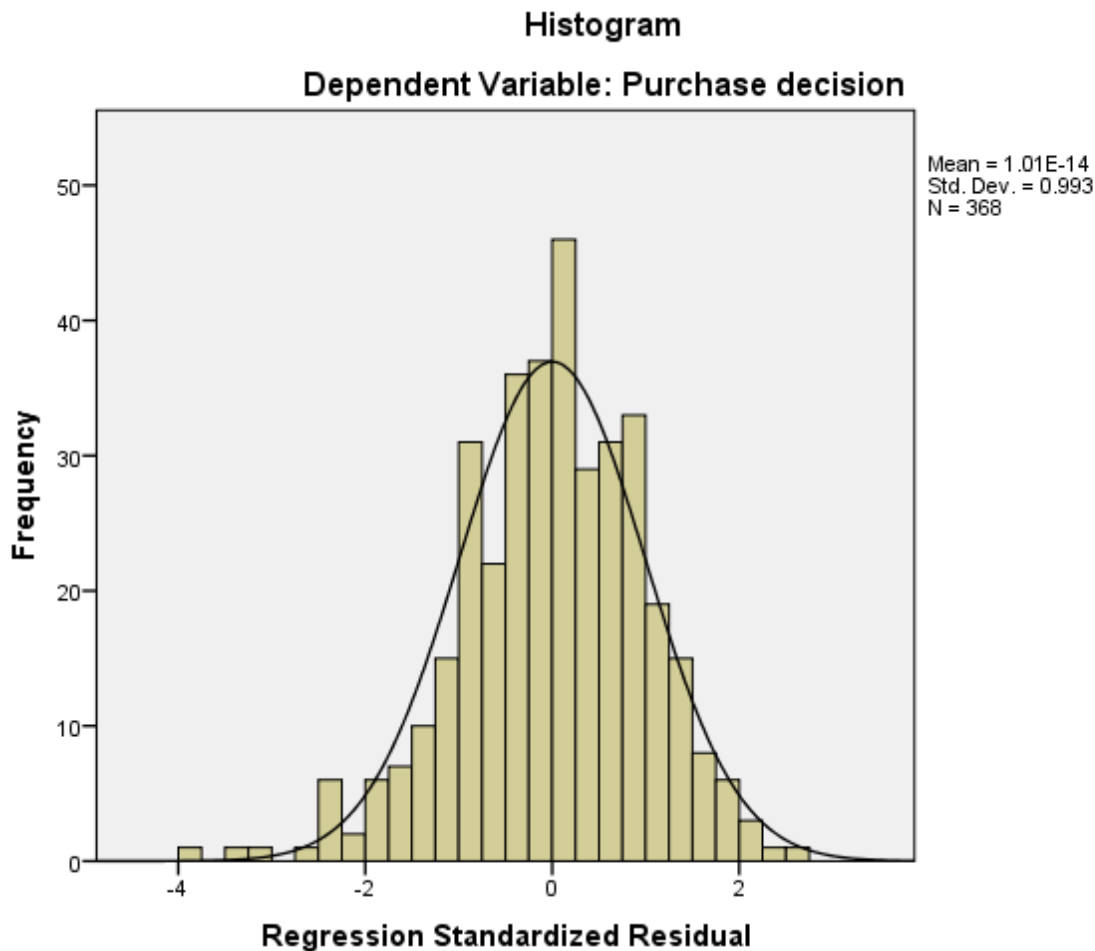
**Table 4.6:** *Skewness and Kurtosis*

<b>Descriptive Statistics</b>					
	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Pharmacist recommendation	409	-1.298	.127	1.971	.254
Family and Friend recommendation	409	.059	.127	-.772	.254
Past Experience	409	-.320	.127	-.893	.254
Country of Origin	409	-.297	.127	-.638	.254
Price	409	-.032	.127	-.652	.254
Purchase Decision	409	-.651	.127	1.227	.254
Valid N (listwise)	409				

**Source:** *Survey Result (May, 2018)*



**Figure 4.2:** Normality plot of regression standardized residual  
Source: Survey Result (May, 2018)



**Figure 4.3:** Histogram plot for regression standardized residual

Source: Survey Result (May, 2018)

### 4.5 Multiple Regression Analysis

According to Marczyk, DeMatteo, and Festinger (2005), linear regression is a method of estimating or predicting a value on some dependent variables given the values of one or more independent variables. Like correlations, statistical regression examines the association or relationship between variables. Unlike with correlations, however, the primary purpose of regression is prediction.

Multiple R is a correlation between the observed values of y, the values of y predicted by multiple regression models. Therefore, large values of the multiple R represent a large

correlation between the predicted and observed values of the outcome. Adjusted R square was used to measure the percentage of variance in the dependent variable explained by the independent variables. From the multiple regression equation, the standard regression coefficient (beta weight) was determined to compare the effect of each independent variable had on the variability of the overall purchase decision.

The model summary table shows the strength of relationship between the independent and the dependent variable. Based on Table 4.7 model summary result, when overall purchase decision was regressed on overall the five independent, the independent variables contribute to statistically significant relationship ( $p < 0.01$ ) between the dependent variable.

The coefficient of determination  $R^2$  is a measure of how good a prediction of the criterion variable we can make by knowing the predictor variables. Accordingly, 82.3% of the variation accounted for the dependent variable is due to the combined effect of the mentioned independent variables. But, sometimes  $R^2$  tends to somewhat over-estimate the success of the model when applied to real world. Therefore, to see the success of our model in the real world, adjusted  $R^2$  is more preferable than  $R^2$ . Therefore; the variation explained by the regression of all the predictor variables on purchase decision is 82.1%.

**Table 4.7:** Model Summary

Model Summary b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.907a	.823	.821	.261

a. Predictors: (Constant), price, past experience, country of origin, pharmacists' opinion and recommendation, families' and friends' opinion and recommendation.

b. Dependent Variable: Purchase decision

**Source:** *Survey Result (May, 2018)*

Table 4.8 depicted that, the B- values tell us about the relationship between customers purchase decision and each predictor. If the value is positive we can tell that there is positive relationship between predictor and the outcome, whereas a negative coefficient represents negative relationship. The standardize beta value for pharmacists' recommendation is 0.436. This indicate

us, this variable has relatively strong degree of importance for consumers' purchase decision than others. This shows that the effect of pharmacists' recommendation is greater than that of price; the effect of price is greater than the effect of country of origin in explaining the variability of overall purchase decision. The p value of all independent variables except past experience and families' and friends' recommendation are less than 0.01. This indicates that there is a strong positive and significant relationship between the independent variables (pharmacists' recommendation, price, and country of origin) and dependent variable (purchase decision). Since, coefficient of the predictor variables were statistically at <5% level of significance, alternative hypotheses related with pharmacists' recommendation, price, and country of origin were accepted.

The significance levels for past experience and families' and friends' recommendation are 0.147 and 0.155 respectively. Though, past experience and families' and friends' recommendation have positive effect on purchase decision of over- the- counter medicine, it is not significant (P- value 0.147, and 0.155 respectively). Therefore; alternative hypotheses related with past experience and families' and friends' opinion and recommendation were rejected.

**Table 4.8:** Regression Analysis of Independent and Dependent Variable

Model		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.055	.088		.622	.534
	Pharmacists recommendation	.301	.017	.436	18.142	.000
	Families' and friends' recommendation	.023	.020	.030	1.139	.155
	Past experience	.026	.018	.038	1.454	.147
	Country of origin	.279	.019	.370	15.035	.000
	Price	.402	.025	.431	16.233	.000

a. Dependent Variable: Purchase decision

Source: Survey Result (May, 2018)

### 4.5.1 Analysis of Variance

ANOVA table shows that the combination of variables significantly predicts the dependent variable. ANOVA tests whether the model is significantly better at predicting the outcome than using the mean as a best guess; specifically, the F-ratio represents the ratio of the improvements in prediction that results from fitting the model, relative to the inaccuracy that still exists in the model. For these data, F is 336.942, which is significant at  $p < 0.001$ . This result tells us there is less than a 0.1% chance that an F-ratio is larger would happen by chance alone. Therefore, it implies that the regression model results in significantly better prediction of product purchase decision than if we used the mean value of customers' product purchase decision.

**Table 4.9:** ANOVA

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	114.985	5	22.997	336.942	.000b
	Residual	24.707	403	.068		
	Total	139.692	408			

a. Dependent Variable: Purchase decision

b. Predictors: (Constant), Price, Past experience, Country of origin, Pharmacists opinion and recommendation, Families' and friends' opinion and recommendation

**Source:** Survey Result (May, 2018)

The objective of the regression in this study is to find such an equation that could be used to find the impact of predictors on dependent variable. The specified regression equation takes the following form:

$$\beta_0 + \beta_1x$$

The specified regression equation for this study takes the following form;

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5$$

In the above equation, predictor variables  $x_i$  may represent independent variables or covariates (control variables). Covariates are variables that are not of theoretical interest but may have some

impact on the dependent variable  $y$  and should be controlled, so that the residual effect of the independent variables of interest are detected more precisely. Covariates capture systematic errors in a regression equation while the error term (E) captures random errors (Bhattacharjee, 2012).

Equation;

$$Y = \alpha + \beta_1 (POR) + \beta_2 (FFOR) + \beta_3 (PE) + \beta_4 (COO) + \beta_5 (P)$$

Where:

Y = Purchase Decision (PD)

POR= Pharmacists' Recommendation

FFOR = Families' and Friends' Recommendation

PE = Past Experience

COO = Country of Origin

P= Price

## **4.6 Discussion of Findings**

This study was carried out to answer the researchers' five main questions which were listed in chapter one. Namely; (1) how does pharmacist's recommendation affect consumers purchase decision of OTC medicines? (2) To what extent family's and friends' recommendation affect consumers purchase decision of OTC medicines? (3) How does country of origin affect consumer purchase decision of OTC medicines? (4) How a past experience does affect consumer purchase decision of OTC medicines? And (5) to what extent does price affect consumer purchase decision of OTC medicines?

As a result, the study revealed that pharmacist's recommendation has a positive and significant effect on consumers' purchase decision of OTC medicines with a mean value of 3.93. This result is supported by the finding of Kevrekidis, et al. (2017), which was conducted in Greece that has a mean value 4.31. In addition, the finding is supported by the following scholars; Haramiova, et al. (2017), Talabă and Andreia (2010), Cîrstea, et al. (2017), and Boström (2011). The finding shows that consumers have a deep trust in the knowledge and competency of the pharmaceutical staff, and that they are easily influenced by them. For this

consumer segment the pharmaceutical staffs are influencers who shape the consumers' view on different products and affect their final purchase decision. The pharmaceutical staff can influence the range of products that the consumer evaluates as an alternative. If we now consider that many consumers take into consideration and also place their product choice based on the opinion or recommendation from the pharmaceutical staff, the pharmaceutical staff is likely to have a great influence on consumers' purchase decision of products

Even though most of the respondents were relatively high paid, they were highly concerned about the price of OTC medicines. In other words, price also has a positive and significant effect on purchase decision of OTC medicines of consumers. This implies that OTC medicine consumers usually check the price of OTC medicine before buying it. The finding is in accordance with the result of Haramiova, et al. (2017), (Villako, et al., 2012), Major and Vincze (2010), Shohel, et al. (2013), and Dadhich & Dixit (2017) which were conducted in different developed countries especially in Europe and Asia.

Country of origin has a positive and significant effect on consumers' purchase decision of OTC medicines with mean value of 3.15. This result is in line with Kevrekidis, et al. (2017), which was conducted in Greece, which has a mean value 3.63. Shohel, et al. (2013), Dadhich & Dixit (2017), and Boström (2011) have similar results that explain the positive and significant effect country of origin on consumers' purchase decision of OTC medicines. Furthermore, consumers consider country of origin to be important for choosing OTC medicines. It can be considered that country of origin does guide the decision making process of consumers, after they have taken into consideration other people's input. As it is explained in the above, country of origin received an average of 3.15 which indicates its importance. Based on the finding, the researcher can conclude that there is a segment who's product choice is influenced by the pharmaceutical company's country of origin and not only by product features or others people's opinions.

Several studies; Shohel, et al. (2013), Haramiova, et al. (2017), Yousif (2016), Boström (2011), (Cîrstea, et al., 2017), and Talabă and Andreia (2010) explain that recommendation of family and friends is considered as one of the more important factors that help the consumer choose an OTC medicine. Whereas the finding of this study shows there is a positive relationship between

families' and friends' recommendation and purchase decision of OTC medicines even if the relationship is statistically insignificant. This is in contrary to the previously studied related literatures. These primary groups that consist of family and friends are a social influence on the consumer. The consumer is not always aware of the influence himself, as family can have a very strong influence where also the parents with whom the consumer may have only little contact with, may still be influencing the consumer's behavior because of the knowledge and direction they did provide during the parenthood. Apart from primary groups' recommendations regarding products, their attitudes and expectations towards the consumer as a person and as an individual of a certain social status can affect the consumer's product choice as well. Therefore; the actual number of consumers who were influenced by the recommendations of their family and friends can possibly be even higher than what the research result shows.

It is important for pharmaceutical companies that their product is the first product choice which the consumer makes in that specific product category which is explained by; Shohel, et al. (2013), Haramiova, et al. (2017), Yousif (2016), Boström (2011), (Cîrstea, et al., 2017), and Talabă and Andreia (2010) as nearly all consumers say that they usually buy the same OTC medicine again and again. The most common reason for this purchasing pattern is that they know the product does work and through previous experience they have learnt about the product and that it is a solution to their problem or need. Some customers do not have the time or energy to explore other options and buy the same product again. Unlike to these literatures finding, previous experience has a positive but insignificant effect on consumers' purchase decision of OTC medicines.

**Table 4.10:** Summary of the overall outcome of the research hypothesis

<i>Hypothesis</i>	<i>Result</i>	<i>Reason</i>
<b>H1:</b> Pharmacist's recommendation has a positive and significant effect on consumer purchase decision of OTC medicines.	Confirmed	$\beta=0.436$ , $p<0.05$
<b>H2:</b> Family's and friends' recommendation have positive and significant effect on consumer purchase decision of OTC medicines.	rejected	$\beta=0.030$ , $p>0.05$
<b>H3:</b> Past experience has positive and significant effect on consumer purchase decision of OTC medicines.	rejected	$\beta=0.038$ , $p>0.05$
<b>H4:</b> Country of origin has positive and significant effect on consumer purchase decision of OTC medicines.	Confirmed	$\beta=0.370$ , $p<0.05$
<b>H5:</b> Price has positive and significant effect on consumer purchase decision of OTC medicines.	Confirmed	$\beta=0.431$ , $p<0.05$

**Source:** Survey Result (May, 2018)

## **Chapter Five**

### **Summary, Conclusion and Recommendation**

This chapter deals with summary, conclusion, recommendations, and limitation and suggestion for future research. In this chapter first, the findings which is made from chapter four is summarized, conclusions of the major findings are drawn, then some possible recommendations are forwarded on the basis of the major findings of the study. And lastly, limitation and suggestion for future researches are presented.

#### **5.1 Summary**

The general objective of this research was to examine factors affecting consumers' purchase decision of OTC medicines from community pharmacies in Ethiopia. The specific objectives were to examine the effect of; pharmacists' recommendation, families' and friends' recommendation, previous experience, country of origin, and price on consumers' purchase decision of OTC medicines. A multi stage sampling techniques was used. Simple random sampling to select representative sample of community pharmacies and convenience sampling to select representative sample population consumers were used. Reliability test was done and Cronbach alpha values were checked to assure the internal consistency of the research instrument. As a result, the overall Cronbach alpha value was .894 which indicates that there is high internal consistency of measurement scales.

Regarding correlation result, Pearson correlation coefficient was computed for all variables and it shows that all independent variables are significantly and positively correlated with dependent variable. Among independent variables, Price ( $r=0.720$ ), Country of origin ( $r=0.642$ ), and Pharmacists' recommendation ( $r=0.617$ ) have higher values of correlation coefficient than others. This indicates that consumers were highly considered about price and country of origin of OTC medicines, and pharmacists' recommendation while they decided to purchase OTC medicines.

From regression result, the standardize beta value for pharmacists' recommendation, price and country of origin were positive. This indicates that there is a strong positive and significant relationship between these independent variables and purchase decision. Even though, past experience and families' and friends' recommendation have positive effect on purchase decision of OTC medicine, it is not significant (P- value 0.147, and 0.155 respectively). Therefore; alternative hypotheses related with pharmacists' recommendation, price, and country of origin were accepted and alternative hypotheses related with past experience and families' and friends' recommendation were rejected. Finally, 82.1% of the variation accounted for the dependent variable was due to the combined effect of the overall the five independent variables.

## **5.2 Conclusion**

As per the finding, pharmacist's recommendation, price, and country of origin of OTC medicines have positive and significant effect on consumers' purchase decision. Thus, consumers' purchase decisions of OTC medicines were mainly determined by the pharmacist's recommendation, price, and country of origin of OTC medicines. Though, past experience and family's and friends' recommendation have a positive effect on consumers' purchase decision, it is not statistically significant.

## **5.3 Recommendations**

Depending on the findings and conclusions made, the researcher forwards four main recommendations. These are;

1. Marketers of OTC medicines especially, wholesalers and importers could benefit from considering community pharmacists as main targets for their promotional activities such as, new OTC medicine launch, continuous medical education (CME) as well as detailing (personal selling).
2. OTC medicines wholesalers and importers could also benefit from focusing on their pricing strategies so as to have competitive advantages and manage needs of their consumers.

3. OTC medicine marketers could also capitalize on the country of origin for their products in their strategies through different promotional activities which targets professionals who have direct contact with consumers. This is because commercial advertising of pharmaceutical products is not yet practical in Ethiopia.
4. Lastly, the researcher recommends further research on previous experience and families' & friends' recommendation to examine their effect on purchase decision of OTC medicine.

#### **5.4 Limitation and Suggestion for Future Research**

1. This study not examined the effect of demographic characteristics on purchase decision of OTC medicines. Therefore; researchers in the future will examine their effects on purchase decision of OTC medicines.
2. This study not included factors like packaging, and company profile as independent variables. Therefore; future research can be carried out on these variables to examine their effects on purchase decision of OTC medicines.
3. Only OTC medicine consumers of Addis Ababa were considered as target population. As a result, the finding might not represent the purchase decision of OTC medicines consumers of the whole Ethiopia. Therefore; additional studies of the same topic shall be conducted in different regions of the country.
4. Finally, since convenient sampling technique was employed, the result might not explain OTC medicines purchase decision of even Addis Ababa consumers.

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## Annex 1

### Questionnaire (*English version*)

*Dear Respondent;*

First of all I would like to thank you for your valuable cooperation. I am doing a paper for the fulfillment of a Masters degree in the Arts of Marketing Management. This research focuses on factors affecting consumer purchase decision of over- the- counter medicine of community pharmacies in Ethiopia. The information you provide will only be used for the results of the study and it is strictly confidential. Please do not write your contact details on the questionnaire. Thanks for your cooperation again.

*Meseret Wube (Mob. +251913989489)*

#### Part I: General Information

Please put an "X" mark of your choice on the space provided.

1. What is your age (in year?)

1. 18 – 30

4. 51 – 60

2. 31 – 40

5. >60

3. 41 – 50

2. Sex

1. Male

2. Female

3. Educational Level

1. No formal education

5. Degree

2. Primary School completed

6. Masters Degree and above

3. High School completed

4. Diploma

4. Your monthly income (in Birr)

- |   |   |
|---|---|
| 1. < 1000 <input style="width: 50px;" type="text"/>     | 4. 3001- 4000 <input style="width: 50px;" type="text"/> |
| 2. 1001- 2000 <input style="width: 50px;" type="text"/> | 5. 4001- 5000   |
| 3. 2001- 3000   | 6. >5000  |

**Part II**

***Dear Respondent;***

First of all I would like to thank you for your valuable cooperation. I am doing a paper for the fulfillment of a Masters degree in the Arts of Marketing Management. This research focuses on factors affecting consumer purchase decision of over- the- counter medicine of community pharmacies in Ethiopia. The information you provide will only be used for the results of the study and it is strictly confidential. Please do not write your contact details on the questionnaire. Thanks for your cooperation again.

**Instructions:** Please indicate your degree of agreement or disagreement against each question by encircling the appropriate number (where, 1: *Strongly disagree*, 2: *Disagree*, 3: *Neutral*, 4: *Agree*, and 5: *Strongly agree*).

**N.B.** Over- the- counter medicine is a medicine which can be purchased from pharmacy without

<i>S.N</i>	<i>Factors</i>	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly agree</i>
<b><i>Pharmacist's recommendation (PR)</i></b>						
PR 1	I have a trust on pharmacist's recommendation of over- the- counter medicines.	1	2	3	4	5
PR 2	I have been buying an over- the- counter medicine according to pharmacist's recommendation.	1	2	3	4	5
PR 3	I repeat buying a medicine which the pharmacist described	1	2	3	4	5

	to me and gave me good results.					
PR 4	I have an experience of buying over- the- counter medicine which the pharmacist recommended me.	1	2	3	4	5
<b>Families' and Friends recommendation (FFR)</b>						
FFR 1	I have been buying over- the- counter medicine of which I have heard from my friend and/or my family.	1	2	3	4	5
FFR 2	I have a trust on family member's experiences regarding over- the- counter medicines.	1	2	3	4	5
FFR 3	I have experience of buying a brand of over- the- counter medicine that my family members recommended me without consulting the pharmacist.	1	2	3	4	5
FFR 4	The information I obtain from my family members and friends encourage me to buy over- the- counter medicine.	1	2	3	4	5
FFR 5	I repeat buying an over-the-counter medicine that my family members and friends described to me and gave me good results.	1	2	3	4	5
<b>Previous Experience ( PE)</b>						
PE 1	I prefer to purchase a brand of over-the-counter medicine that I have previously purchased.	1	2	3	4	5
PE 2	I always buy the same brand of over-the-counter medicine.	1	2	3	4	5
PE 3	I am willing to pay more for an over-the-counter medicine I have had a good experience with.					
PE 4	I will buy different brands of over- the- counter medicine because I want variation.	1	2	3	4	5
<b>Country- of- Origin (COO)</b>						
COO 1	I like considering its country of origin while I purchase an over- the- counter medicine.	1	2	3	4	5
COO 2	I use country-of-origin as a reference to evaluate quality of an over- the- counter medicine among brands.	1	2	3	4	5
COO 3	I will purchase over- the- counter medicines from certain country to enhance my self-image.	1	2	3	4	5
COO 4	I believe purchasing over- the- counter medicines from certain country will enhance my social status and pride.	1	2	3	4	5
COO 5	I will purchase an over- the- counter medicine, if it is from a country-of-origin which I like.	1	2	3	4	5
<b>Price (P)</b>						

P1	I am very concerned about the price of the over- the- counter medicine.	1	2	3	4	5
P2	I will continue buying over- the- counter medicine which I know so far even though it increases its price.	1	2	3	4	5
P3	I will switch to another brand of over- the- counter medicine if the price is increased.	1	2	3	4	5
P4	I will compare the prices of over- the- counter medicine among brands while I want to purchase.	1	2	3	4	5
P5	I will buy the cheapest over- the- counter medicine.	1	2	3	4	5
<b><i>Purchase decision (PD)</i></b>						
PD 1	I decide to buy over- the- counter medicine upon pharmacist's recommendation.	1	2	3	4	5
PD 2	I decide to buy over- the- counter medicine upon families' and friends' recommendation.	1	2	3	4	5
PD 3	I decide to buy over- the- counter medicine through my own experience.	1	2	3	4	5
PD 4	I decide to buy over- the- counter medicine by considering its country of origin.	1	2	3	4	5
PD 5	I decide to buy over- the- counter medicine by considering its price	1	2	3	4	5

***Thank you for your participation!!***

## Annex 2

### Questionnaire (Amharic version)

አዲስ አበባ ዩኒቨርሲቲ ንግድ ስራ ት/ቤት  
የድህረ ምረቃ ጥናት  
የገበያ ጥናት ትምህርት ክፍል/Marketing Management Department  
በደንበኞች የሚሞላ መጠይቅ

ውድ ጊዜዎን ሰውተው ይኼንን መጠይቅ ስለሞሉልኝ በቅድሚያ አመሰግናለሁ። በመቀጠልም ይህ መጠይቅ የተዘጋጀው **ያለ መድሃኒት ማዘዣ የሚሸጡ መድሃኒቶችን በመግዛት ሂደት ውስጥ የገዢው/ደንበኛው ምርቱን የመግዛት ውሳኔ ላይ ተጽእኖ የሚያደርጉ ምክንያቶች (Factors Affecting Consumers' Purchase Decision of Over-the-Counter Medicines)** ለመፈተሽ ሲሆን ጥናቱም በግል መድሃኒት ቤቶች ላይ ያተኩራል። ጥናቱ የተዘጋጀው ለመመረቁያ ፅሁፍ ሲሆን በዚህ መጠይቅ እርስዎ የሚመልሱት መልስ ለመመረቁያ ፅሁፍ አገልግሎት ብቻ የሚውል መሆኑን በቅድሚያ ለረጋግጥለዎት እወዳለሁ። ለበለጠ መረጃ ወይም ማብራሪያ በስልክ ቁጥር: 0913 98 94 89 ቢደውሉልኝ ወይም በኢ-ሜይል: meseretwb@gmail.com ቢፅፉልኝ ፈጣን ምላሽ ይኖረኛል።

### ክፍል አንድ

### ስለ ምላሽ ስጪዎች መረጃ

በሚሞሉበት ጊዜ: 1. ስምዎን መጻፍ የለብዎትም 2. መልስዎ ሲፅፉ በሰጥኑ ውስጥ የ (x) ምልክት ያድርጉ

1. ዕድሜ (በዓመት)

- |            |                          |            |                          |
|------------|--------------------------|------------|--------------------------|
| 1. 18 – 30 | <input type="checkbox"/> | 4. 51 – 60 | <input type="checkbox"/> |
| 2. 31 – 40 | <input type="checkbox"/> | 5. >60     | <input type="checkbox"/> |
| 3. 41 – 50 | <input type="checkbox"/> |            |                          |

2. ፆታ

1. ወንድ

2. ሴት

3. የትምህርት ደረጃ

1. የመጀመሪያ ደረጃ ት/ት ያጠናቀቀ/ች

4. የመጀመሪያ ድግሪ

2. የሁለተኛ ደረጃ ት/ት ያጠናቀቀ/ች

5. የሁለተኛ ድግሪና ከዚያ በላይ

3. ዲፕሎማ ያጠናቀቀ/ች

6. ከተጠቀሱት ዉጪ ከሆነ ይጠቁ

4. የወር ገቢ (በብር)

1. ከ1000 ያነሰ

4. 3001- 4000

2. 1001- 2000

5. 400- 5000

3. 2001- 3000

6. ከ5000በላይ

**ክፍል ሁለት**

**የገዢውን ወይም የደንበኛውን የመግዛት ውሳኔ በዋናነት ተጽእኖ ሊያሳድሩ የሚችሉ ምክንያቶች**

እባክዎ የገዢውን ወይም የደንበኛውን የመግዛት ውሳኔ በዋናነት ተጽእኖ ሊያሳድሩ የሚችሉ ምክንያቶችና የመስማማት/አለመስማማት ፍላጎትዎን መጠን ከሚከተሉት ዓረፍተነገሮች ጋር በማያያዝ ይምረጡ። (የእርስዎን አመለካከት የበለጠ የሚገልጸውን ቁጥር ያክብቡ)።

**ማሳሰቢያ:** 1: በጣም አልስማማም 2: አልስማማም 3: የምለው የለኝም 4: እስማማለሁ 5: በጣም እስማማለሁ ማለት ነው።

ተ.ቁ.	የመለኪያ መስፈሪቶች	በጣም አልስማማም	አልስማማም	የምለው የለኝም	እስማማለሁ	በጣም እስማማለሁ
<b>የመድሃኒት ባለሙያዎች ጥቆማን በተመለከተ</b>						
1	የመድሃኒት ባለሙያዎች ያለ ማዘዣ የሚሸጡ መድሃኒቶችን በተመለከተ ለሚሰጡኝ አስተያየትና ጥቆማ እምነት አለኝ።	1	2	3	4	5
2	ያለ ማዘዣ የሚሸጡ መድሃኒቶችን የመድሃኒት ባለሙያዎች በሚሰጡኝ	1	2	3	4	5

	አስተያየትና ጥቆማ መሰረት እገዛለሁ።					
3	የመድሃኒት ባለሙያዎች ከዚህ ቀደም ጠቁሙኝ ተጠቅሜው በደንብ የፈወሰኝን ያለ ማዘዣ የሚሸጡ መድሃኒት ደጋግሜ ገዢዎች አውቃለሁ።	1	2	3	4	5
4	የመድሃኒት ባለሙያዎች የጠቆሙኝን ያለ ማዘዣ የሚሸጡ መድሃኒቶች የመግዛት ልምድ አለኝ።	1	2	3	4	5
<b>ቤተሰቦችና ዳደሮች ጥቆማን በተመለከተ</b>						
1	ከቤተሰቦቼና ወይም ከዳደሮቼ የሰማሁትን ያለ ማዘዣ የሚሸጡ መድሃኒትን ስገዛ ቆይቻለሁ።	1	2	3	4	5
2	ያለ ማዘዣ የሚሸጡ መድሃኒቶችን በተመለከተ በቤተሰቦቼና ወይም በዳደሮቼ ልምድ እምነት አለኝ።	1	2	3	4	5
3	ቤተሰቦቼ ወይም ዳደሮቼ የጠቆሙኝን ያለ ማዘዣ የሚሸጡ መድሃኒት ብራንድ የመድሃኒት ባለሙያዎችን ሳለማክር የመግዛት ልምድ አለኝ።	1	2	3	4	5
4	ከቤተሰቦቼና ከዳደሮቼ ያገኘሁት መረጃ ያለ ማዘዣ የሚሸጡ መድሃኒት እንደገና ያበረታታኛል።	1	2	3	4	5
5	ቤተሰቦቼና ዳደሮቼ ከዚህ ቀደም ጠቁሙኝ ተጠቅሜው በደንብ የፈወሰኝን ያለ ማዘዣ የሚሸጡ መድሃኒት ደጋግሜ ገዢዎች አውቃለሁ።	1	2	3	4	5
<b>ከዚህ ቀደም የነበረ ልምድን ወይም ተሞክሮን በተመለከተ</b>						
1	ከዚህ ቀደም ገዢዎች ተጠቅሜው የማውቀውን ያለ ማዘዣ የሚሸጡ መድሃኒት ተመሳሳይ ብራንድ መግዛት እመርጣለሁ።	1	2	3	4	5
2	ተመሳሳይ ብራንድ የሆነ ያለ ማዘዣ የሚሸጡ መድሃኒት በተለምዶ ደጋግሜ አገዛለሁ።	1	2	3	4	5
3	ከዚህ ቀደም ገዢዎች ተጠቅሜው በደንብ የፈወሰኝን ያለ ማዘዣ የሚሸጡ መድሃኒት ብራንድ ለመግዛት የበለጠ ዋጋ ለመክፈል ፈቃደኛ ነኝ።	1	2	3	4	5
4	የተለያዩ ብራንድ ያላቸው ያለ ማዘዣ የሚሸጡ መድሃኒቶች መጋዘት እወዳለሁ። ምክንያቱም ለውጥ ስለምፈልግ።	1	2	3	4	5
<b>መድሃኒቱ የተመረቀበትን ሀገር በተመለከተ</b>						
1	ያለ ማዘዣ የሚሸጡ መድሃኒት በምገዛበት ወቅት የተሰሩበትን ሀገር	1	2	3	4	5

	ከግምት ውስጥ አስገባለሁ።					
2	ያለ ማዘዣ የሚሸጡ መድሃኒቶች የተመረቱበትን ሀገር በየመድሃኒት ብራንዶች መካከል ያለውን የጥራት ልዩነት እንደመለኪያ እጠቀማለሁ።	1	2	3	4	5
3	የራሴን ገፅታ/self-image/ ለመጨመር ስል የሆነ ሀገር የተመረተ ያለ ማዘዣ የሚሸጥ መድሃኒት ገዝቼ እጠቀማለሁ።	1	2	3	4	5
4	የሆነ ሀገር የተመረተ ያለ ማዘዣ የሚሸጥ መድሃኒት ገዝቼ ስጠቀም በማህበረሰቡ ውስጥ ያለኝን ቦታና ክብር እንደሚጨምርልኝ አምናለሁ።	1	2	3	4	5
5	ያለ ማዘዣ የሚሸጠውን መድሃኒት የምገዛው የተመረተበት ሀገር የምወደው ሀገር ከሆነ ነው።	1	2	3	4	5
<b>የመሸጫ ዋጋን በተመለከተ</b>						
1	ያለ ማዘዣ የሚሸጡ መድሃኒቶችን ስገዛ የሽያጭ ዋጋቸውን ከግምት ውስጥ በጣም አስገባለሁ።	1	2	3	4	5
2	ምንም እንኳን የመሸጫ ዋጋው ቢጨምርም ከዚህ በፊት የማውቀውን ያለ ማዘዣ የሚሸጥ መድሃኒት መግዛት እቀጥላለሁ።	1	2	3	4	5
3	ከዚህ በፊት ስጠቀም የነበረው ያለ ማዘዣ የሚሸጥ መድሃኒት የመሸጫ ዋጋው ቢጨምር ሌላ ብራንድ እገዛለሁ።	1	2	3	4	5
4	ያለ ማዘዣ የሚሸጡ መድሃኒቶችን ስገዛ የሽያጭ ዋጋቸውን ከብራንድ ብራንድ አወዳድራለሁ።	1	2	3	4	5
5	ያለ ማዘዣ የሚሸጥ መድሃኒት በምገዛበት ወቅት በጣም ቅናሽ ዋጋ ያለውን መድሃኒት እፈልጋለሁ።	1	2	3	4	5
<b>የመግዛት ውሳኔን በተመለከተ</b>						
1	ያለ ማዘዣ የሚሸጡ መድሃኒቶችን ለመግዛት የምወስነው የመድሃኒት ባለሙያዎች በሚሰጡኝ አስተያየትና ጥቆማ መሰረት ነው።	1	2	3	4	5
2	ያለ ማዘዣ የሚሸጡ መድሃኒቶችን ለመግዛት የምወስነው ቤተሰቦቼና ጓደኞቼ በሚሰጡኝ አስተያየትና ጥቆማ መሰረት ነው።	1	2	3	4	5
3	ያለ ማዘዣ የሚሸጡ መድሃኒቶችን ለመግዛት የምወስነው ከዚህ ቀደም ያለኝን ልምድ በመጠቀም ነው።	1	2	3	4	5
4	ያለ ማዘዣ የሚሸጡ መድሃኒቶችን ለመግዛት የምወስነው የተሰሩበትን ሀገር	1	2	3	4	5

	ከግምት ውስጥ በማስገባት ነው።					
5	ያለማዘዥ የሚሸጡ መድሃኒቶችን ለመግዛት የምወስነው የሽያጭ ዋጋቸውን ከግምት ውስጥ በማስገባት ነው።	1	2	3	4	5

**ለትብብርዎ በጣም አመሰግናለሁ!!**

### **Annex 3**

#### ***Number of Community Pharmacies in Addis Ababa***

በአዲስ አበባ የምግብ፣ የመድኃኒትና የጤና ክብካቤ አስተዳደር ቁጥጥር ባለስልጣን



Addis Ababa City Administration Food,  
Medicine and Health Care Administration  
And Control Authority

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ቁጥር ገዢ/16492174 ቀን 19/06/2010  
Ref. No. Date.

## ለሚመለከተው ሁሉ

**ጉዳዩ:-መረጃ ስለመስጠት ይሆናል፤**

ክላይ በርዕሱ እንደተጠቀሰው አቶ መስረት ወቤ የተባሉ በአ/አ/ዩ/የማርኬቲንግ ተማሪ የሆኑት ለመመረቅ ቀደም ይረዳቸው ዘንድ የመድኃኒት ቤት እና የመድኃኒት መደብር ብዛት በቁጥር ተጠቅሶ እንዲሰጣቸው በጠየቁት መሰረት በአዲስ አበባ የምግብ፣ የመድኃኒትና የጤና ክብካቤ አስተዳደርና ቁጥጥር ባለስልጣን ስር ከማዕከል እስከ ወረዳ ድረስ ያሉትን በአጠቃላይ ድምር መድኃኒት ቤት 480 እና መደብር 224 መሆናቸውን እየገለጹን ዝርዝራቸውን ከዚህ በታች እንደተጠቀሰው መሆናቸውን እንገልጻለን፡፡

ተ.ቁ	የክ/ከተማ ስም	መድኃኒት ቤት	መድኃኒት መደብር
1	ኮልራ ቀራኒያ	58	54
2	አራዳ	25	12
3	የካ	54	37
4	ቂርቆስ	31	10
5	ልደታ	23	5
6	ቦሌ	112	0
7	ን/ሲ/ላ/ክ/ከተማ	58	50
8	አቃቂ ቃሲቲ	18	27
9	አዲስ ከተማ	26	11
10	ጉሰሌ	18	18
11	የከተማ	57	0
	በአጠቃላይ	480	224

ከሀላፊ ጋር  
*(Handwritten signature and stamp)*



መልስ ሲጻፉ የገንዘብ ቁጥርና ቀን ይጻፉ  
In replying please mention our reference number and date.  
Location: Kirkos Sub city, Bole, Flamingo, Tommy Tower Tel: +251-115-50-06-36 P.O.Box: 15286

## Annex 4

### Item-total Statistics

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I have a trust on pharmacist's recommendation of over-the-counter medicines.	89.67	217.933	.399	.892
I have been buying an over-the-counter medicine according to pharmacist's opinion	89.68	217.367	.416	.891
I repeat buying a medicine which the pharmacist described to me and gave me good results.	89.66	215.614	.500	.890
I have an experience of buying over-the-counter medicine which the pharmacist recommended me.	89.85	212.547	.567	.888
I have been buying over-the-counter medicine of which I have heard from my friend and/or my family.	90.18	215.514	.463	.890
I have a trust on family member's experiences regarding over-the-counter medicines.	90.20	218.447	.363	.892
I have experience of buying a brand of over-the-counter medicine that my family members recommended me without consulting the pharmacist.	90.56	216.678	.411	.892

The information I obtain from my family members and friends encourage me to buy over- the-counter medicine.	90.91	214.020	.392	.892
I repeat buying an over-the-counter medicine that my family members and friends described to me and gave me good results.	90.78	210.969	.442	.891
I prefer to purchase a brand of over-the-counter medicine that I have previously purchased.	90.34	210.367	.503	.890
I always buy the same brand of over-the-counter medicine.	90.39	209.710	.520	.889
I am willing to pay more for an over-the-counter medicine I have had a good experience with.	90.47	211.634	.495	.890
I buy different brands of over- the- counter medicine because I want variation.	90.52	221.951	.255	.894
I consider country of origin before I purchase any brand of over- the-counter medicine.	90.35	216.451	.395	.892
I use country-of-origin as a reference to evaluate quality of an over- the-counter medicine among brands.	90.40	212.671	.515	.889
I purchase over- the-counter medicines from certain country to enhance my self-image.	90.48	213.956	.502	.890

I believe purchasing over- the- counter medicines from certain country will enhance my social status and pride.	90.52	214.959	.475	.890
I purchase an over- the- counter medicine, if it is from the country-of-origin which I like.	90.71	211.380	.537	.889
I am very concerned about the price of the over- the- counter medicine.	90.45	215.540	.450	.891
I will continue buying over- the- counter medicine which I know so far even though it increases its price.	90.45	217.611	.419	.891
I will switch to another brand of over- the- counter medicine if the price is increased.	90.42	219.394	.391	.892
I will compare the prices of over- the- counter medicine among brands while I want to purchase.	89.88	212.889	.577	.888
I will buy the cheapest over- the- counter medicine.	90.51	217.994	.391	.892
I decide to buy over- the- counter medicine upon pharmacist's opinion and recommendation.	90.35	218.243	.357	.893
I decide to buy over- the- counter medicine upon families' and friends' opinion and recommendation.	90.44	216.672	.445	.891

I decide to buy over- the- counter medicine through my own experience.	89.86	213.617	.568	.889
I decide to buy over- the- counter medicine by considering its country of origin.	90.71	211.380	.537	.889
I decide to buy over- the- counter medicine by considering its price	89.66	215.614	.500	.890