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School of Commerce
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**FACTORS AFFECTING CONSUMERS' PURCHASE DECISION OF LOCALLY
MANUFACTURED GENERIC MEDICINES: EVIDENCES FROM COMMUNITY
PHARMACIES IN ADDIS ABABA.**

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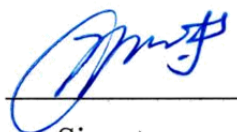
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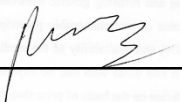
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Declaration

I, Netsanet Asmare, hereby declare that the thesis entitled “**Factors Affecting Consumers’ Purchase Decision of Locally Manufactured Generic Medicines; Evidences from Community Pharmacies in Addis Ababa**” is my original work 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.

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Table of Contents

Acknowledgements	I
List of Table.....	II
List of Figure	III
List of Abbreviations	IV
Abstract.....	V
CHAPTER 1	1
INTRODUCTION.....	1
1.1 Background of the study.....	1
1.1.1 Consumer behavior.....	1
1.1.2 Generic Medicine Market	2
1.2 Statement of the problem	5
1.3 Research Questions	6
1.3.1 General research question.....	7
1.3.2 Specific research questions.....	7
1.4 Objectives of the Research	7
1.4.1 General Objective	7
1.4.2 Specific Objectives	7
1.5 Significance of the Study	8
1.6 Scope of the Study.....	9
1.7 Limitation of the study	10
1.8 Definition of Terms	10
1.9 Organization of the study	11
CHAPTER 2	13
REVIEW OF RELATED LITERATURE.....	13
2.1. Theoretical Review.....	13
2.1.1 Consumer buying behavior	13
2.1.2 Models of Consumer Behavior.....	14
i. Howard Sheth Model	14
ii. Engel – Blackwell – Miniard Model (EBM)	16
2.1.3 Consumer's Decision-Making Process	17

2.1.4	Types of Buying Decision Behavior	20
2.1.5	Factors that influence consumer behavior.....	21
2.2	Empirical Review	22
2.2.1	Factors Affecting Consumer Purchase Decision of Locally Manufactured Generic Medicines	22
2.3.	Conceptual Framework.....	33
2.3.1.	Conceptual Model.....	33
2.3.2	Research Hypothesis	34
CHAPTER 3		35
RESEARCH METHODOLOGY		35
3.1	Research Approach.....	35
3.2	Research Design	35
3.3	Data Types and Source.....	36
3.4	Population of the study.....	36
3.5	Sampling procedure.....	36
3.5.1	Sampling Technique	36
3.5.2	Sample Size	37
3.6	Data Collection Method.....	38
3.7	Data analysis method	38
3.8.1	Validity.....	39
3.8.2	Reliability.....	39
3.9	Ethical consideration	39
CHAPTER 4		41
DATA PRESENTATION AND ANALYSIS		41
4.1	Introduction.....	41
4.2	Reliability Analysis	41
4.3.	Descriptive Analysis.....	42
4.3.1	Demography of the Respondents	42
4.3.2	Descriptive Analysis of Variables	43
4.4.	Inferential Analysis.....	45
4.4.1	Pearson Correlation Analysis	45

4.5 Multiple Regression Analysis	47
4.5.1 Normality	47
4.5.2 Multi- Collinearity	49
4.5.3 Linearity	50
4.5.3 Homoscedasticity	51
4.6 Multiple Regression Results	52
4.6.2 Regression ANOVA Table	53
4.6.3 Regression Coefficient Analysis of the Model	54
4.6 Discussion of Findings	56
CHAPTER 5	59
SUMMARY, CONCLUSION AND RECOMMENDATION	59
5.1 Introduction	59
5.2 Summary	59
5.3 Conclusion	60
5.4 Recommendation	61
5.5 Recommendations for Further Study	62
REFERENCES	63
APPENDIX I	72

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List of Table

Titles	Page
Table 4.1 Summary of Reliability Analysis.....	41
Table 4.2 Demographic information.....	42
Table 4.3 Descriptive Statistics of the variables	44
Table 4.4 Correlation between the independent variables and the dependent variable..	46
Table 4.5 Normality measurement.....	48
Table 4.6 Multi-collinearity problem test of VIF and tolerance.....	50
Table 4.7 Regression Model Summary Table.....	53
Table 4.8 ANOVA.....	54
Table 4.9 Regression Coefficients Table.....	54
Table 4.10 Summary of the overall outcome of the research hypothesis.....	58

List of Figure

Titles	Page
Figure 2.1 Howard and Sheth Model of Buyer Behavior	16
Figure 2.2 EBM Model of Decision Making	17
Figure 2.3 Five-Stage Model of the consumer buying process.....	18
Figure 2.4 Four types of buying behavior.....	21
Figure 2.5 Conceptual framework of the study.....	33
Figure 4.1 Histogram plot for regression standardized residual	49
Figure 4.2 Normal Point Plot of Standardized Residual	51
Figure 4.3 Scatterplot for testing homoscedasticity	52

List of Abbreviations

API	Active Pharmaceutical Ingredient
FMHACA	Food, Medicine, Health Care Administration and Control Authority
FMOH	Federal Ministry of Health
USD	United States Dollar
WHO	World Health Organization
LMGM	Locally Manufactured Generic Medicines
CAGR	Compound annual growth rate

Abstract

Understanding consumer behavior enables marketers to predict what motivates individual to buy and then provide products that respond to those motivations, ensuring that customer expectations are met and exceeded over time. The objective of this study was to examine factors affecting consumers' purchase decision of locally manufactured pharmaceuticals from community pharmacies in Ethiopia. A quantitative research design, and descriptive and explanatory research approaches were used. Data were collected from primary sources through questionnaires and analyzes through both descriptive and inferential method. Mean and standard deviation were used in the descriptive analysis. Inferential analysis, on the other hand, was carried out using the linear regression method. Both descriptive and inferential statistics were used and SPSS version 26 was used for running the statistical result. A total number of 384 questionnaires were distributed to targeted respondents out of which 346 questionnaires were responded back with full accuracy of responses which indicates a response rate of 90% approximately. According to the findings, Product knowledge, Price, Pharmacist's recommendation, Product quality, and Ethnocentrism have positive and significant effect on consumers' purchase decision at significance level of 0.01. Besides, it was found out that the five hypotheses were confirmed. Therefore, marketers of locally manufactured medicines could benefit from considering those factors as main targets for their promotional activities. Future research may include other factors that may enhance customers' buying decisions.

Key words: *Purchase decision, locally manufactured medicines, Community pharmacy*

CHAPTER 1

INTRODUCTION

1.1 Background of the study

1.1.1 Consumer behavior

"All marketing decisions are based on assumptions and knowledge of consumer behavior."
(Hawkins, Mothersbaugh and Best, 2007)

Consumer behavior has long been a hot marketing topic, because understanding how and why customers behave in certain ways while making purchasing decisions helps businesses improve their marketing strategies and increase their market share. As a result, one of the challenges that all marketers confront today is influencing consumer purchase behavior in favor of their products or services. As a result, understanding buying behavior illuminates the psychology of how consumers think, argue, choose, and feel among available options (e.g., brands, products, and retailers), as well as how the consumer's environment (e.g., culture, family, media) influences him/her, and how consumer motivation and decision strategies differ between products. All of this leads to a better knowledge of how marketers may improve their marketing campaigns to reach consumers more successfully (Stankevich, 2017).

Each consumer is distinct, and this distinction is mirrored in their purchasing habits and processes (Blackwell, Miniard and Engel, 2006). What we buy, how we buy, where and when we buy, as well as how much we buy are all influenced by our perceptions, self-concepts, social and cultural backgrounds, age and family cycle, as well as our attitudes, beliefs, values, motivation, personality, social class, and a variety of other internal and external factors (Khan, 2006).

The intricate interaction of cultural, societal, personal, and psychological factors influences the consumer's decision. Although the marketer has little control over many of these factors, they can help discover potential purchasers and shape products and appeals to better serve their needs. When it comes to monitoring consumer behavior, marketers must be exceedingly cautious.

Consumers frequently reject what appears to be a lucrative offer (Blackwell, Miniard and Engel, 2006).

The phases that customers go through when making the final purchasing decision are referred to as the consumer decision-making process. The marketer's task is to focus on the entire purchasing process rather than merely on a purchase decision, because customers go through several stages before reaching a conclusion (Basil et al., 2013).

Consumers' purchasing decisions are more sophisticated and important today than they were in the past. Reports, commercials, publications, and direct mailings deliver a vast amount of information to customers. Furthermore, many types of products, suppliers, supermarkets, and shopping malls require sophisticated and challenging decision-making (Kotler and Armstrong, 2012).

Marketers need to know everything about consumers to be successful in any business, especially in today's dynamic and continuously evolving marketplace. Marketers that have a thorough understanding of the customer decision-making process are more likely to develop products, set prices, select distribution channels, and create promotional messages that will influence consumer purchasing decisions in their favor (Solomon, et al., 2006).

1.1.2 Generic Medicine Market

A generic drug is a pharmaceutical product, usually interchangeable with an innovator product, that is manufactured without a license from the innovator firm and marketed after the innovator company's patent or other exclusive rights have expired (WHO 2014). Generic items are less expensive, according to Armstrong, G. & Kotler, P (2006), and can be as much as 40% less expensive than name brands. Prescriptions for generic pharmaceuticals are less expensive for the consumer yet have the same effect. Generic drugs can save money on healthcare because of their reduced prices, and these savings can be used to subsidize expensive new medicines and promote pharmaceutical research and development, Kanavos (2006). The local pharmaceutical manufacturing industry plays an important role of manufacturing of essential generic medicines from both a health and an economic development perspective. (Kinoti, M. and Njeru, N, 2013).

In recent years, drug expenses have been a major worry in developing countries, with healthcare policymakers concerned that they suffer a higher financial burden than others when it comes to paying for medications, Kheder and Ali (2014). Because generic medicines are 20-90 % less expensive than novel drugs, they typically save the government money on pharmaceutical health care and benefit the patient (El-Dahiyat and Kayyali, 2013) and (Colgan et al., 2015). Governments and third-party payers pushed for the deployment of GMs to control rising health-care costs without sacrificing quality (Bashaar, Hassali and Saleem, 2015).

According to Bedada, W. (n.d.), Manufacturing of medicines in Ethiopia started in 1964. The history of pharmaceutical manufacturing in Ethiopia is only half a century old. Medicines are marketed and registered in Ethiopia by the Food, Medicine and Health Care Administration and Control Authority (FMHACA). Imported goods are subject to a higher fee (700-800USD) than domestically manufactured goods (22USD). Manufacturers must be licensed, and they are inspected every five years against FMHACA\GMP criteria, whereas local manufacturers are inspected twice a year (Ewen et al., 2017).

There are no active pharmaceutical ingredients (APIs) manufactured in Ethiopia (Ewen et al., 2017). The Ethiopian Food and Drug Administration licenses 12 medication manufacturers and 38 medical supply and device manufacturers to operate in Ethiopia. Despite this, the country's public health needs are still mostly met by imported pharmaceuticals. Population growth, economic growth, rising health coverage, and initiatives to address more and varied ailments are the main drivers of pharmaceutical demand in Ethiopia. Ethiopia is Africa's second-most populated country, with approximately 112 million inhabitants and a 2.3 % annual population growth rate. It boasts the region's fastest-growing economy, with an average annual growth rate of 9.4% from 2010 through 2020. As the population's disposable income rises, so does demand for essential health services, such as pharmaceuticals (WHO, 2021).

A research undertaken by the WHO in various developing countries, including Africa, estimated that generic substitution might save up to 90% of money (Cameron and Laing, n.d.). In Ethiopia, utilizing generic equivalents rather than brand pharmaceuticals resulted in a six-fold cost reduction (FMOH/WHO). Generic drug substitution (GS) strategies have been implemented by governments in both developed and developing nations in order to reduce pharmaceutical costs

and enhance access to medicine. Six European nations (Sweden, Germany, Norway, France, Finland, and Spain) require generic substitution, while others allow it (Portugal, Denmark, Italy, Poland, Czech Republic, Netherland, Hungary, Poland, and Latvia). Generic replacement is popular in the United States, with pharmacists substituting up to 84% of brand-name medicine prescriptions for which generic alternatives are available (Hassali et al, 2014).

One-third of the world's population lacks access to essential medicines, putting the global health system at risk. The affordability of medicines has a substantial impact on access to medicines (Ham, R.V. et.al. (2011). The United Nations advises the world's poorest countries, such as Ethiopia, to enhance access to medications by producing them locally (Zarocostas, 2011). Around 30% of Ethiopia's National Essential Drugs are produced in the country (FDRE 2015). Clinical practice standards in Ethiopia require that prescriptions be written using generic names for medicines (FMHACA 2014). Furthermore, the national medication policy allows pharmacists to supply generic pharmaceuticals in place of prescribed brand names (Mohammed, Woldekidan and Mohammed, 2020).

Few studies have been conducted on medicines from pharmacy practice perspective Wube, M. (2020) ; Suwarnajote and Mekhum, (2020) ; Hassan, R. (2018). According to their studies, there are a number of determining factors that influence the processes of purchasing decisions of medicines consumers such as families and friends recommendation, country of origin, price, the role of physicians, efficacy, the role of pharmacists, perceived quality, knowledge ,brand experience and so on.

In this research, the researcher set out to find out how product knowledge, price, product quality, pharmacist's recommendation, and ethnocentrism affect the buyer behavior of consumers during the purchase of locally manufactured generic medicines in Addis Ababa. Hence, this study was to assess the determinant factors that influence consumer purchase decisions towards locally manufactured generic medicines.

1.2 Statement of the problem

Marketers who conduct research on their customers can develop better products and services, more effectively promote their products and services, and develop marketing plans and strategies that foster long-term competitive advantages. Understanding consumer behavior allows marketers to predict what motivates individuals to buy and then supply products that respond to those motivations, ensuring that customer expectations are met and exceeded over time Kardes, (2011).

P&S Intelligence. (n.d.) according to the report in 2019, the worldwide generic drugs market was worth \$278.4 billion, and it is expected to grow at a CAGR of 10.0 % from 2020 to 2030. Rising geriatric population, increasing number of branded medicine patent expirations, increasing incidences of chronic and acute disorders, and increasing R&D spending of biotech and pharm businesses are all contributing to the market's growth. In addition, key players have been taken strategic measures to ensure that generic pharmaceuticals are available on the market.

Last year, Ethiopia's pharmaceutical market grew by 15% to around \$1 billion. By 2020, the local market will have grown at a rate of 25% per year on average. With a population of more than 102 million people, improved access to health care, and a burgeoning middle class, demand is expected to grow exponentially to 3.6 billion people by 2030. Ethiopia now imports 85% of its pharmaceutical needs, a tremendous need that local industry has struggled to meet (Addis, A. 2021).

Marketers have long been interested in the pharmaceutical industry, according to FMOH and WHO (2003), because it is a major and internationally competitive industry. Therefore; to remain competitive in the market, every marketer must understand consumer behavior, including purchase decision-making processes and various elements that can influence a customer's purchasing decision. Every business area is becoming increasingly competitive, with many new entrants to the market, necessitating extensive research into consumer behavior in all aspects, including consumer needs and wants, preferences, satisfaction, decision-making process, and factors that influence purchase decisions, among other things.

Several studies have been conducted in various European and Asian countries to examine factors affecting consumers purchase decision of medicines Habash and Al-Dmour, (2020) ; Suwarnajote and Mekhum, (2020); Mekawie and Hany, (2019). As the researchers' noted, few studies have been conducted on medicines from pharmacy practice perspective Wube, M. (2020) ; Suwarnajote and Mekhum, (2020); Hassan, R. (2018). According to these studies, pharmacists' recommendations, recommendations from family and friends, knowledge, country of origin, previous experience, price, reputation, willingness to pay and brand preference are all common determinants of consumers' over the counter medicine purchase decisions.

In addition, most generic medication researches have focused on pharmacists, physicians, and patients knowledge, perceptions and beliefs of these drugs. Ricardo Arcaro et al., (2021); Gebresillassie et al., (2018); Alemayehu et al., (2018); Mohammed, Woldekidan and Mohammed, (2020); Nasir, Muhammed and Buseir, (2019); Bashaar, Hassali and Saleem, (2015); Skaltsas and Vasileiou, (2015), However, studies on the factors that influence consumers purchasing decisions on locally manufactured medicines are scarce in the literature of developing countries in general and Ethiopia in particular.

Therefore, the empirical and practical gaps stated above substantiate the need for undertaking a study on the determinant factors (product knowledge, price, pharmacist's recommendation, product quality, and ethnocentrism) which have an effect on consumers purchasing decision of locally manufactured generic medicines in Addis Ababa.

While these studies are important to researchers, none of them looked into the factors that influence Ethiopian consumers' decisions to buy locally manufactured drugs, leaving a knowledge gap. As a result, the researcher decided to address this gap.

1.3 Research Questions

This study tries to answer the following general and specific questions

1.3.1 General research question

What are the determinant factors that affect consumers' purchasing decision of locally manufactured generic medicines?

1.3.2 Specific research questions

1. How does product knowledge affect consumer purchase decision of locally manufactured generic medicines?
2. Does price affect consumer purchase decision of locally manufactured medicines?
3. Does pharmacists' recommendation has affect consumer on the selection of locally manufactured generic medicines?
4. What is the effect of product quality on consumers' purchase decision for locally manufactured generic medicines?
5. How does ethnocentrism influence the buyers' purchase decisions making towards locally manufactured generic medicines?

1.4 Objectives of the Research

1.4.1 General Objective

The broad objective of this study is to empirically investigate the determinant factors that affect consumers' purchase decision for locally manufactured generic medicines in Addis Ababa.

1.4.2 Specific Objectives

The specific objectives of the study include the following

- To determine the product knowledge and purchase decision of consumers towards locally manufactured generic medicines
- To identify the effect of price on consumer purchase decision of locally manufactured generic medicines
- To examine the effect of pharmacists recommendation on consumers purchase decision of locally manufactured generic medicines

- To examine the effect of product quality on purchase decision of locally manufactured generic medicines
- To investigate the effect of ethnocentrism on locally manufactured medicines purchase decision

1.5 Significance of the Study

According to the Generic Drugs Market Research Report, the global generic medication market is fast developing, with a CAGR of 10.0 % expected between 2020 and 2023. Understanding customer behavior in terms of the characteristics that influence their buying behavior is critical. Understanding consumer behavior in relation to locally manufactured generic medicines is critical for a wide range of locally medicine manufacturers to make real-world changes in the marketing mix and marketing strategy based on consumer characteristics in order to increase sales. As a result, the findings of the study will help to close the research and knowledge gap.

This study will have a tremendous importance to the manufacturers, importers, wholesalers and retailers throughout all the transvection processes through identifying consumers need and buying considerations of locally manufactured generic medicines with regard to designing marketing and other actions to drive sales, protect, or expand market share.

This study will provide an insight in order to expand the use of generic medicines, the pharmaceutical industry, doctors, other health professionals, and public health policy makers need a better understanding of consumer purchasing behavior regarding generic drugs. Understanding the factors that influence customers' purchase decisions can help with the development of policies and promotional strategies that will reduce obstacles to generic medicine uptake.

In addition this study will hope fully help the consumers who are facing the dilemma or confused and influenced by many external or internal factors to make purchase decision of specific drug, so they can choose the one they prefer.

1.6 Scope of the Study

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

Conceptually this study will try to show the main factors that determine the purchasing decision of consumers on locally manufactured generic medicines. To achieve this aim, the scope of the study is to identify different factors, i.e. knowledge, price, pharmacist's recommendation, ethnocentrism, and product quality the purchasing decision of consumers of locally manufactured medicines in the city, though there are other factors which may affect consumers purchase decision of generic medicines. These are country of origin, past experience, role of physicians, effectiveness, safety, trust, advertisement, brand name and perceived risk. This is mainly because it is impossible to cover every side of the phenomenon. Furthermore, the types of pharmaceutical products that will be covered in this study are factors that influence customers' buying decisions in Ethiopia for both over-the-counter and prescription drugs.

The study was conducted on 33 community pharmacies in Addis Ababa. This research used quantitative research methods only, the reason being to examine the relationship between two variables; in this research, the variables are the five factors (product knowledge, price, pharmacists' recommendation, product quality, and ethnocentrism) and consumer buying decision behavior.

Geographically, the scope of the study is limited to Addis Ababa, capital city of Ethiopia and then patients only; the research does not include private and governmental hospital pharmacy, and drug stores in Addis Ababa and outside Addis Ababa because community pharmacists are the most accessible to the general public, they have the potential to do more than just dispensing medications. Unlike community pharmacies, hospital pharmacies rely solely on prescription medications from the hospital where they are located (Melton & Lai, 2017). The cost and difficulty to maintain large number of population of the whole in the country. Consumers' buying decisions for locally manufactured generic pharmaceuticals were measured using these parameters, which were relevant and appropriate. Other parameters of purchase decision, therefore, are beyond the scope of this study.

1.7 Limitation of the study

One of the major limitation that the researcher experience is lack of sufficient related studies that were conducted on factors affecting consumers buying decisions of locally manufactured generic medicines in developing countries in general and in Ethiopia, Addis Ababa in particular.

The quantitative research method is used in this investigation, it involves structured questionnaire with close ended questions. It leads to limited outcomes outlined in the research proposal. So the results cannot always represent the actual occurring, in a generalized form. In addition, the respondents' response alternatives are constrained due to the researcher's selection.

The geographical limitation of this study prevented generalization of the results to other areas of the country due to the number of macro and micro marketing environments in the large agrarian society of the nation and hence was taken as a limitation.

Although there are a number of factors which affect consumers' buying decisions, this study focused on knowledge, price, pharmacist's recommendation, product quality, and ethnocentrism. The study population was taken from 647 community pharmacies from eleven sub-cities of Addis Ababa.

1.8 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 locally manufactured generic medicines from community pharmacies.

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.

Pharmaceutical products: ‘More commonly known as medicines or drugs, are a fundamental component of both modern and traditional medicine. It is essential that such products are effective, safe and of good quality, and are prescribed and used rationally.’ (WHO, 2011)

Active pharmaceutical ingredient:

"active pharmaceutical ingredient (API) Any substance or combination of substances used in a finished pharmaceutical product (FPP), intended to furnish pharmacological activity or to otherwise have direct effect in the diagnosis, cure, mitigation, treatment or prevention of disease, or to have direct effect in restoring, correcting or modifying physiological functions in human beings." (WHO, 2011)

Community pharmacy: is a healthcare facility that provides pharmaceutical service to specific community (FMHACA, List of medicines for community pharmacy).

Knowledge, defined as “the understanding of the concept and technical definition of a generic medicine, mainly, being therapeutically and clinically interchangeable, with the same efficacy, safety, and quality, as the originator brand” (Alrasheedy and Hassali, 2014).

Consumer ethnocentrism is defined as "consumer beliefs about the appropriateness, even morality, of purchasing foreign-produced products and consumer loyalty to products manufactured in their home country." (Shimp and Sharma, str. 280, 1987).

1.9 Organization of the study

This study consists of five chapters with different sections and sub-sections and its structure as follows:

The first chapter contains Introduction (background of the study, statement of the problem, objectives, significance of the study, delimitation, limitations of the study organization of chapters). The second chapter discusses the theoretical and empirical reviews of literatures extracted from different books, articles, journals and websites related to consumer behavior, the influence of the various factors on purchase decisions in general and on generic medicines in particular. Chapter three will go through Methodology, description of the study, research approach, research design, target population and Sample size, Data Source and Types, Data

collection procedures and Ethical consideration. The fourth chapter will provides data analysis and presentation of consumer purchase decision in accordance with the theoretical variables. It also includes a comparison of the data analysis to the frame of reference. The last chapter presents the conclusion and recommendation of the study. In addition, future research suggestions will forwarded on the specific study area.

CHAPTER 2

REVIEW OF RELATED LITERATURE

This chapter discussed the literature review as presented by other authors and researchers in different field of buying decision. Review on the study of factors affecting purchase decision of locally manufactured generic medicine is limited. The various sections presented here were; concept of consumer buying behavior, and then clearly describes factors affecting consumers purchase decision of locally manufactured generic medicines. In addition, based on previous related literatures, the conceptual framework of the study together with the hypothesis was formulated.

2.1. Theoretical Review

2.1.1 Consumer buying behavior

Consumer behavior is a wide range of study about the decision making processes that a consumer make at the time of making a purchase. According to Kotler et al. 2009 p. 224 “Consumer behavior is the study of how individuals or groups buy, use and dispose of goods, services, ideas or experience to satisfy their needs or wants.” In the early stages, consumer behavior was taken as buyer behavior that reflects the interaction between consumers and produces at the time of purchase but now marketers recognize consumer behavior as an ongoing process not only what happens at the time when consumer gives money and gains some goods or services (Solomon, 2004).

As per (Schiffman et al., 2011), consumer behavior mainly sheds light on how consumers decides to spend their various resources like time, money etc. on various products so as to meet their needs and requirement. Consumer behavior is the study of what, when, why, and where customers will buy products. It also takes into account how often customers use the products. Furthermore, it also sheds light on how the consumers evaluate the products after the purchase and the effect of evaluations on their future purchases.

Consumer behavior is a broadly study field. Consumer behavior is the study for explaining the consumer why, what, when and how buy a product or a brand (Kumar, John, and Senith, 2014). The understanding of consumer buying behavior completely is still impossible because it is related very closely to human mind. However, the understanding of consumer behavior is an important part of marketer. Consumer behavior is the study of how people make decisions about what they purchase. The behavior can be pre-purchase and post-purchase. It also helps companies to identify the opportunities.

2.1.2 Models of Consumer Behavior

The various orientations and perspectives with which consumers approach the marketplace and how/why they behave as they do are referred to as consumer buying decision models. The impact of different orientations on the buying decision process and overall buyer behavior is referred to by consumers. A number of researchers have proposed various models to comprehend and explain consumer purchasing decisions for a variety of products/services (Prasad and Jha, 2014). Howard Sheth Model and Engel – Blackwell – Miniard Model are two well-known models that will be discussed in this paper.

i. Howard Sheth Model

The model is a consistent sequence of aspects such as social, psychological, and cultural impacts on consumer choices. It focuses on describing consumer behavior in terms of cognitive functioning and testable representations of such behavior and its results. The Howard Sheth model of consumer behavior is based on the assumption that the inputs are in the form of stimuli. The outputs are reaction and attention to a specific stimuli, followed by purchase. Variables impacting perception and learning exist between the inputs and the outputs. Because these variables cannot be explicitly measured at the time of occurrence, they are referred to as "hypothetical."

The Howard-Sheth Model of Buyer Behavior shows consumer buying process inputs as well as how they are used by customers before reaching their final decision (Prasad and Jha, 2014). This was created by taking into account both industrial and consumer products in order to have a

better knowledge of varied consumer buying habits (Loudon and Della 2002; Sangeeta Sahney, 2017). Because industrial purchasers and consumers have many characteristics, they employed buying behavior instead of consumer behavior (Loudon & Della, 2002; Sangeeta Sahney, 2017). It also enables a more complex integration of psychological, social, and marketing influences on customer decision-making into a logical information flow. Through extensive issue solving, limited problem solving, and routinized response behavior, the Howard model of buying behavior explains and distinguishes between three different stages of learning or decision making (Schiffman, Leslie Lazar Kanuk and Wisenblit, 2010).

The Input Variables: Consumers learn by gathering relevant product knowledge from two sources of information: commercial and social sources. The data is used to compare different brands based on a variety of selection criteria. The characteristics of a product or brand are the focus of commercial sources of information (i.e. quality, price, distinctiveness, service and availability). Family, reference groups, and social class provide information from the buyer's social environment, which must be assimilated by the customer before it may influence the decision-making process.

Hypothetical Constructs: are psychological variables as motives, attitudes, perception, and learning that influence consumer decision-making by establishing the frames through which the consumer receives and interprets inputs from above.

Output Variables: these are the five visible responses from the customer that lead to the final outcome of a transaction. It proceeds in a logical order from attention to brand comprehension to brand attitude to purchase intention to purchase action.

Exogenous Variables: The model also incorporates some exogenous variables that influence all or part of the above-mentioned components, as well as the output, through them. They have an indirect influence on the consumer and differ from one consumer to the next. Personality attributes, social class, purchasing importance, and financial condition are all factors to consider.

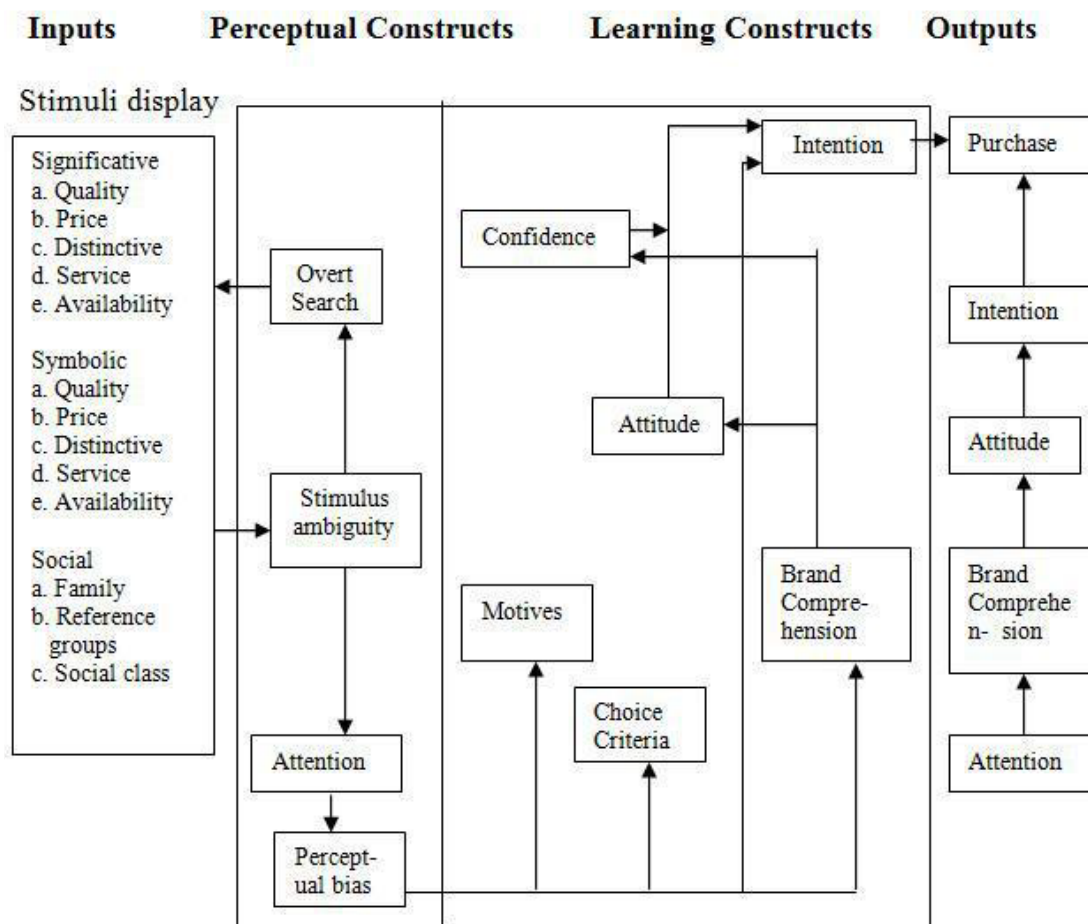


Figure 2.1 Howard and Sheth Model of Buyer Behavior (Source : Howard, and Sheth, pp. 32 (1969))

ii. Engel – Blackwell – Miniard Model (EBM)

This model was developed to describe the rapidly expanding body of knowledge in the field of consumer behavior. Like previous models, the Engel et al. model has undergone numerous updates to increase its capacity to describe the essential relationships between components and sub-components. The model is built around a seven-step decision process that starts with recognizing a need, then searching for information both internally and outside, evaluating alternatives, purchasing, reflecting on the purchase, and ultimately divesting. Two major elements influence these decisions. External variables in the form of either environmental influences or individual differences are first received and processed by the consumer in conjunction with memories of previous experiences, and secondly, external stimuli is received and processed by the consumer in conjunction with memories of previous experiences. Culture,

family, personal influence, socioeconomic status, and situation are among the identified environmental effects. Consumer resource; motivation and involvement; knowledge; attitudes; personality; values and lifestyle are all examples of individual influences (Blackwell, Miniard and Engel, 2001).

Values, lifestyle, personality, and culture are all factors that influence consumer decision-making in this model. The model didn't explain what factors influence these things, or why different personality types can result in different decision-making. How will we apply these values when working with different personalities? Religion can explain some of the consumer's behavioral features, resulting in a better comprehension of the model and a more comprehensive view of decision-making (Prasad and Jha, 2014).

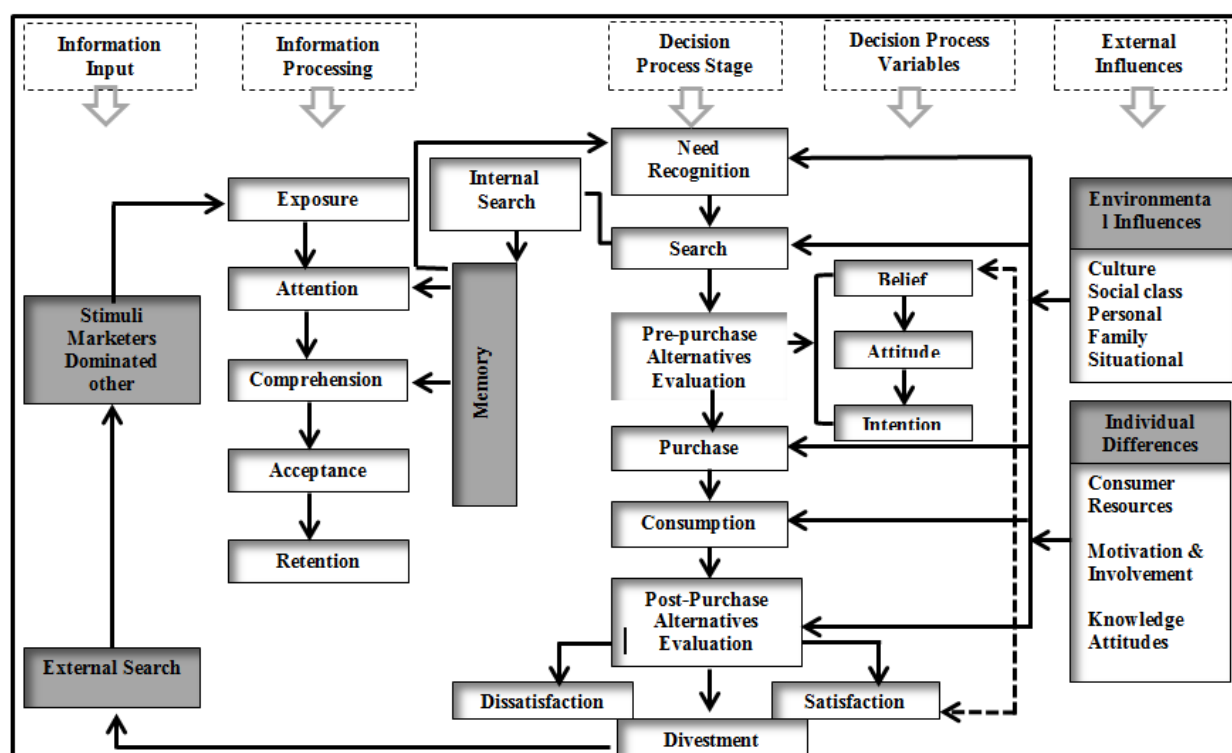


Figure 2.2 EBM Model of Decision Making (Source Blackwell, Miniard and Engel, 2001)

2.1.3 Consumer's Decision-Making Process

These basic psychological processes play an important role in understanding how consumers make their purchasing decisions. Marketing experts have developed a “stage model” of the

purchase decision process. Kotler and Armstrong (2010) identified five stages of a consumer decision-making process, such as demand recognition, information search, alternatives, purchase decision, and post purchase behavior. Linking this with purchasing behavior, consumers often have the unlimited demand to meet their needs and satisfaction to get something newer or better. This can be due to the fact that each person has his or her own behavior, attitude and imagination when choosing products and making a purchase decision. Kotler & Keller (2012) describe this model in details and explain additional stage of the model - disposal stage. In addition, they discuss moderating effects on consumer decision-making (like consumer involvement).

According to Ting et al., (2019), in order to purchase a pharmaceutical product, the consumer goes through these five stages. These stages help the buyer to evaluate his/her needs, choose the medicine according to his/ her need and budget and purchase it. The model is shown below to show the consumer decision process.



Figure 2.3 Five-Stage Model of the consumer buying process (Source: Kotler et al., 2009, p 254)

a. Problem/need-recognition

Problem recognition, according to Solomon (2004), occurs when the consumer notices a significant divergence between the desired and actual conditions. The current state and the desired state are perfectly parallel. However, problems can arise as a result of these two factors. First, if the consumer does not receive the product because it is sold out, or if the consumer purchases things that are not in accordance with one's needs, the consumer's actual state will deteriorate. When a customer encounters this, they are in a state of "need recognition." Second, if the consumer receives a better product, the consumer's ideal condition will improve. The consumer is in this situation in the form of opportunity recognition (Solomon, 2004).

b. The information search stage

It is the second stage of the decision-making process for consumers. When a consumer goes to the market to buy products or services, he or she recalls his or her previous thoughts about the product; if the previous experience was positive or good, and the consumer was satisfied, the consumer purchases the product, and the quest for knowledge comes to an end. However, if the consumer has had a bad or unfavorable experience in the past, he or she will start looking for information on that product. When a consumer wants to try a new product, he or she also looks up product information (Clow& Baack 2016, p.76). During this stage, the consumer begins to look for information on the product from a variety of sources.

"Consumers can obtain information from a variety of sources," according to Kotler. Personal sources (family, friends, neighbors, acquaintances), commercial sources (advertising, salespeople, dealer and manufacturer, web and mobile sites, packaging, displays), public sources (mass media, consumer rating organizations, social media, online searchers and peer reviews), and experimental sources (examining and using the product) are among them" (Kotler et al. 2017, p. 156.).

c. In the evaluation stage

The customer must choose between alternative brands, products and services. An important determinant of the extent of the evaluation is whether the customer feels “involved” in the product. 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 and Ferrell, 2007, pp. 177-179).

d. The purchase decision

This is the fourth stage, where the purchase takes place. According to (Kotler, 2012) the consumer’s purchase decision will be to buy the most preferred brand, but two factors can come between the purchase intention and the purchase decision. The first factor is the attitudes of others. The second factor is unexpected situational factors. The consumer may form a purchase intention based on factors such as expected income, expected price, and expected product

benefits. However, unexpected events may change the purchase intention. Thus, preferences and even purchase intentions do not always result in actual purchase choice.

This is the fourth stage, during which the purchase is performed. According to (Kotler, 2012) the consumer's purchase decision will be to buy the most preferred brand, but two factors can come between the purchase intention and the purchase decision. The primary aspect is the attitudes of others. Unexpected situational factors are the second consideration. A consumer's purchasing intention may be influenced by factors such as predicted income, price, and product benefits. Unexpected circumstances, on the other hand, may alter the buying intention. consequently, preferences or even buy intentions do now not continually result in actual purchase desire.

e. Post-purchase Behavior

After purchasing the product, the customer will assess his or her level of satisfaction. If a customer is dissatisfied with a product, their expectations have not been reached (Khan 2006, p. 168.). If the product fits the customer's expectations, he or she will be happy and willing to spend more money on this brand in the future. Additionally, consumer contentment can be transferred into brand loyalty. This frequently occurs when the customer's expectations are exceeded (Kardes et al. 2011, p. 91). Companies should deliberately construct pleasant post-purchase communication to engage customers at this moment.

2.1.4 Types of Buying Decision Behavior

Consumer purchasing decisions are not all the same, and the amount of work put into the process varies. Snap judgments can be made with little information search when the decision-making process is practically automatic. This type of commonly made purchasing decision has little risk and requires little effort. Other times, the decision-making process necessitates a significant amount of time and research. Buying products that involve high risk and substantial problem solving is uncommon (Kardes, 2011). Figure 4 shows four types of decision-making based on the degree of consumer involvement.

	High Involvement	Low Involvement
Significant differences between brands	Complex Buying Behavior	Variety Seeking Behavior
Few differences between brands	Dissonance Reducing Buying Behavior	Habitual Buying Behavior

Figure 2.4 Four types of buying behavior (Kotler and Armstrong, 2010)

2.1.5 Factors that influence consumer behavior

Consumer behavior is the study of individuals and groups as they choose, purchase, utilize, and discard products, ideas, services, or experiences. Consumers range from a tiny toddler begging his mother to purchase him a new game to a multinational business executive negotiating a large investment agreement. Consumers look for products that meet their basic wants and desires. Consumer behavior requires far more than simply observing what people buy. It tries to figure out how people make decisions and how that influences their purchasing habits. (Solomon, pp. 6-8, 2004). Individual and organizational customers are two different categories of consumers. Individual consumers are those who make purchases to meet their own needs and desires or to meet the needs of others. One rationale for studying consumer behavior is that consumers come from a variety of backgrounds, including different upbringings, phases of life, and ages (Kardes et al., 2011). Organizational customers, on the other hand, may buy to resell or utilize as an input for their final product or service, rather than for personal consumption.

As per (Kotler & Armstrong 2010, p. 160.), Cultural, social, personal, and psychological aspects all influence a customer's purchasing decisions. Consumer behavior is a facet of human behavior, and marketers can predict how consumers will behave in the future while making purchasing decisions by researching previous buying behavior. Knowing the factors that influence consumer

buying behavior is critical because it allows marketers to forecast how customers will behave in the long run when making purchasing decisions for various commodities.

2.2 Empirical Review

2.2.1 Factors Affecting Consumer Purchase Decision of Locally Manufactured Generic Medicines

Consumer behavior is affected by both internal and external factors. Research results conducted in the area of factors affecting consumers' buying decision are discussed as follows. The dependent variables and independent variables in this research will be studied based on different literatures.

The majority of generic drug research have concentrated on pharmacists', physicians', and patients' knowledge, attitudes, and beliefs about these drugs. Gebresillassie et al., (2018); Alemayehu et al., (2018); Mohammed, Woldekidan and Mohammed, (2020); Nasir, Muhammed and Buseir, (2019); Bashaar, Hassali and Saleem, (2015) but the literature of developing countries lacks studies on the factors that influence the purchasing decision of consumers on locally manufactured generic drugs. As the researchers' noted, few studies have been conducted on medicines from pharmacy practice perspective Wube, M. (2020); Suwarnajote and Mekhum, (2020); Hassan, R. (2018).

However, no research has been conducted on locally manufactured generic medicines from consumer purchase decision perspectives in Ethiopia. Therefore, this study will provide an insight to pharmaceuticals marketers on factors which affect consumer purchase decision of LMGM. Furthermore, based on the findings, pharmaceutical marketers will build their marketing strategies to be efficient and successful in order to maintain long-term competitive advantages. Furthermore, the outcome will be critical as a baseline for future research.

i. Product Knowledge

Product knowledge will influence a consumer's propensity to purchase a country's made in product, according to studies conducted by Lee and Lee, (2009) and Ghalandari and Norouzi (2012). Consumers who have a high level of product knowledge can successfully complete product-related tasks and have substantial prior knowledge of product categories, usage, and purchasing information. When consumers are subjected to plausible claims about the country of origin, product knowledge will help them process information in a regulated and controlled manner.

According to Ayub and Kusumadewi's (2021) study, product knowledge has a favorable and substantial effect on purchase intention by 17.4 %. This indicates that the more you know about a product, the more likely you are to buy it. Consumer product knowledge has an effect on the emergence of purchasing intentions. Consumers with a high level of product knowledge evaluate products based on their quality because they trust their information.

Omotayo et al., conducted research (2021) the findings revealed that product familiarity and knowledge have a moderately beneficial impact on customer purchasing decisions, as opposed to product attributes and perceived product quality. According to the findings, product familiarity is one of the most powerful motivational factors influencing consumers' choice of laptop computer brand, implying that students buy laptop computers based on familiar products.

Many pharmaceutical consumers lack understanding, unawareness, or insufficient information concerning generic drugs, according to Hassali, Kong and Stewart, (2005), studies cited in the literature. The level of awareness about generic medications is a significant aspect for adoption and usage of generic medicines, according to Lebanova, (2012), because insufficient information about generic medicines is one of the biggest impediments to their widespread use.

Naing et al., (2013) among the 183 respondents showed, 157 (85.8%) did not know about the term 'generic name' even in their local language, 158 (86.3%) were unsure about the quality of a generic medicine compared to branded medicine and 159 (86.9%) did not realize the difference in price between a generic medicine and the branded medicine. Of these, 60 (32.8%) thought that

imported medicines were of better quality than the locally manufactured medicines and 78 (42.6%) thought that drugs recommended by pharmacists were certain to be of quality. Regarding the medication use, 176 (96.2%) of the 183 respondents had good compliance to the prescribed medication.

Several studies have been conducted to evaluate the public's knowledge and awareness of the concept of generic medicines, as well as to examine patients' perceptions and attitudes toward the use of generic medicines. A systematic review of the patients' and consumers' knowledge, perceptions, acceptance, and views of generic medicines in the literature was provided by Hassali et al., (2009) and Alrasheedy and Hassali, (2014). They cited a number of studies reporting a lack of knowledge or unawareness or insufficient information about generic medicines among many medicine consumers. Patients in different countries, over time, showed mixed reactions and divergent views towards the use of generic medicines. Many studies, reported in the literature, cited misconceptions and negative perceptions about generic medicines on the part of patients and medicine consumers. These misconceptions and negative perceptions were reported as major obstacles to the use and acceptance of generic medicines among patients. Besides, Hassali et al., (2009) and Keenum et al. (2012) have reported an upward trend in patient knowledge and confidence toward the use of generic medicines over the past four decades, especially in the developed countries.

Study done by Thomas and Vitry, (2009) majority of Malaysian consumers did not know what generic medicines were. Negative perceptions of generic medicines among Malaysian consumers could be due to a lack of knowledge about generic medicines and negative portrayals of generic medicines by the people around them. Among consumers who were unsure whether they would be willing to try a generic medicine, the main reason given was that they felt they had insufficient knowledge to make a decision.

ii. Price

Price is one of the most important factor which affects consumer's choice to purchase a particular product or brand. According to Law of Demand as the price of a commodity increases the demand for the same decreases. "Price is the amount of money charged for a product or service,

or the sum of the values that customers exchange for the benefits of having or using the product or service" (Kotler & Armstrong, 2010).

From the study conducted in Finland on reason for allowing and refusing generic substitution, the three most important factors affecting respondents' choice of interchangeable prescription medicine were price (81.1%), followed by familiarity (38.4%) and availability of the medicine (32.8%). Respondents who had allowed generic substitution and those who had no experience with generic substitution were more likely to choose the medicine on the basis of price than those who had only refused generic substitution ($p < 0.001$) (Nokelainen et al., 2020).

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 (Wube, M. 2020).

Regarding cost considerations, the majority of respondents (83.1%, $n = 325$) agreed/strongly agreed that the costs of medicines are, in general, too high and more than three quarters (80%, $n = 313$) of the surveyed patients strongly disagreed/disagreed that the costs of medicines are not a major issue in the management of their medical condition (Gebresillassie et al., 2018).

Lins Ferreira et al., (2017) in their study on generic drugs in times of economic crisis: Are there changes in consumer purchase intention, the results of this study evidence the idea that price is a fundamental element in building pharmaceutical product value, mainly in times of an economic crisis. In situations of limited resources, consumers tend to save money in all areas, including those related to health. This research shows that prices constitute important factors that consumers take into account in the drug shopping context. On the other hand, a lower price does not mean that generic drugs have a lower perceived quality.

Study done by (Bashaar, Hassali and Saleem, 2015), Most of the respondents 82.8% were confident that the locally manufactured generics were cheaper than imported generics. Just over half 58.1 percent of the respondents believed that local generics are more affordable than imported generics. Despite community pharmacists' positive attitudes of the quality and affordability of locally manufactured medicines, the majority of their medicines are imported due to a lack of resources.

Other scholars El-Dahiyat and Kayyali (2013) in their study on evaluating patients' perceptions regarding generic medicines in Jordan, shown under than 80% of the respondents agreed that costs should be considered before a drug is prescribed. Furthermore, 92 percent of Jordanian patients surveyed requested to be given and/or dispensed the cheapest medicine available for the treatment of their medical condition. In addition, the findings demonstrated Jordanian patients' great trust and confidence in locally produced generic drugs. More than a third of those respondents preferred to be prescribed a lower-cost locally manufactured generic medicine over a more expensive imported brand medicine. Overall, almost 80% of the patients believed that the use of generic medicines would provide significant saving to them.

iii. Pharmacists' recommendation

According to study done in Ethiopia on Factors affecting consumers' purchase decision of OTC medicine, 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 (Wube, M. 2020). Another study done in Ethiopia also show that more than two-thirds of respondents (75.2%, n = 294) accept the pharmacist substituting their prescribed medications to a cheaper medicine and similar percentage of patients (78%, n = 305) preferred to be prescribed locally produced medicines (Gebresillassie et al., 2018).

Habash and Al-Dmour, (2020) in the study on factors influencing the intention to buy over-the-counter medicines: empirical study, the findings show that all antecedent factors (internal, external, and combination) have a significant positive influence on OTC drug purchase intentions. Internal factors (brand experience) are more influential than external factors (professional advice, drug availability, family and friends' opinion, price and brand package); however, the combination of internal and external factors resulted in the greatest influence on buying OTC medicines compared to each category separately. Moreover, Professional advice has the highest positive effect; this stresses the role of doctors and pharmacists in influencing the patients' buying behavior of OTC medicines.

A strong evidence in the literature emphasized that both physicians and pharmacists play an essential role in the promotion of generic medicines and patients' acceptance of their use and

generic substitution. The majority of medicine consumers in different countries, such as New Zealand, Malaysia, Finland, Norway, and Japan, would accept generic medicines based on physician or pharmacist recommendations Al-Gedadi et al. (2008); Heikkilä et al. (2007) and Kjoenniksen, Lindbaek & Granas, (2006). Quintal and Mendes, (2012) also pointed out that physicians have a greater influence than pharmacists in persuading patients to utilize generic drugs in several countries.

According to a study by Pujari et al. (2016), 38 % of people buy medicines because they were prescribed by a doctor, 14 % because they were recommended by a pharmacist, 20 percent buy branded drugs, 16 percent buy generic drugs, and 5% buy medicines since they are inexpensive and simple to obtain. Even with simple conditions, it was discovered that people bypass their doctor's prescription and choose for most branded medicines. Similarly, pharmacist advice is irrelevant; roughly 15-20 percent of patients prefer home remedies.

Other scholars Maha N. et al.,(2021) in there study on Factors affecting purchasing behaviors of generic drugs versus originator counterparts in Jordan also showed that the role of a pharmacist is considered one of the main factors affecting drug choice, which plays a critical role in using generic or originator counterparts.

Drozdowska and Hermanowski, (2016) in there study conclude that, patients are more sensitive to pharmacists' opinions more often preferred cheaper generic equivalents to innovator drugs. In general, Poland pharmacists advocate for a constructive attitude toward generic substitution.

Lins Ferreira et al., (2017), studied generic drugs in times of economic crisis: are there changes in consumer purchase intention? Showed that the recommendations of health care providers, 70% reported that doctors and 82% that pharmacists recommend generic medicines to patients/consumers. Most of the respondents rely on replacements of brand name drugs with generic medicines when indicated by a doctor (96%) or pharmacist (82%).

iv. Product quality

"The product is at the center of the marketing program," Kotler and Keller (2016) explained. Companies must offer products or services that reflect the values that consumers demand in order to gain a competitive advantage.

According to Anggita, and Ali (2017), product quality has become one of the most important aspects in a consumer's decision to purchase a product; in addition to brand factors and price benefits, product quality is also a factor to consider; as a result, the company must pay attention to and maintain the quality of the products it releases.

Study done in Ethiopia by Alemayehu et al., (2018) "Views and perceptions about locally manufactured medicines in Ethiopia: a qualitative study of physicians, patients and regulatory authorities" the study examined attitudes about local medicine regulation and the quality of locally manufactured medications using qualitative research. The researcher announced the findings were all institutional review board members, physicians and male patients were concerned about the quality and effectiveness of local drugs, but not female patients. Female patients were more confident in the drugs are made locally. Furthermore, numerous doctors and patients questioned the quality and efficacy of lower-cost medications and drugs imported from developing countries.

Idris et al., (2021) conducted a study in Asmara, Eritrea, to investigate consumers' perceptions of generic pharmaceuticals and in vitro quality assessment of locally manufactured paracetamol in the hopes of providing insight into the general perception of generic and branded medicines. In general, almost half of the respondents (49.1%) prefer locally manufactured paracetamol to imported paracetamol. More than half of the respondents (68.5%) do not believe that more expensive drugs are of higher quality. Consumers prefer the local paracetamol tablet over the imported paracetamol tablet because of their positive experience (62.1%). About three-fourths of consumers (78.1%) believe that medications made in other countries are of higher quality.

On a study done in Brazil, the experience with generic drugs and favorable perceived quality influence consumers' shopping attitude in a positive way. In this study, the majority of

respondents had past experience with a generic drugs (97%), irrespective of the duration of use, and they expressed satisfaction with the generic product's results (93 percent). Moreover, the results found favorable opinions on the safety (90%), effectiveness (90%), and tolerability (92%) associated with generic drug use. These results have demonstrated that Brazilian consumers have good confidence in generic drugs, achieve positive results through their use and are satisfied with them; accordingly, the findings represent increased credibility and greater experience of generic drug use in times of economic crisis (Lins Ferreira et al., 2017).

Another study done by Nardi et al., (2015) in Brazil, generic medicines have been used by 44.6 % of the population. It was observed that almost a third believed generic medicines to be less effective than brand name products. Regarding perceptions, 30.4% of the respondents considered generic medicines less effective than brand drugs; provided the same price, 59% would prefer brand drugs, and 45.8 percent agreed that physicians prefer to prescribe generic drugs. The elderly, low-income, and nonwhite people had the highest negative attitudes of generic medications. In addition the participants would be more willing to use generic medicines for less serious diseases. Fewer than half of the participants agreed with the statement that physicians prefer to prescribe generic medicines.

According to study done in Kabul, Afghanistan when the respondents were asked about their views of the quality and price of locally produced generic medicines, half of the pharmacists 50.0% indicated that the locally produced generics were as equally efficacious and safe as imported generics, while most of the respondents 82.8% were confident that the locally manufactured generics were cheaper than imported generics. Furthermore, 90.4% of the respondents believed that it was the responsibility of the Afghan regulatory authorities to educate pharmacists on the quality of domestic generics (Bashaar, Hassali and Saleem, 2015).

Another research conducted by Hassali et al., (2012), on “Community Pharmacists' Perceptions of the Quality of Locally Manufactured Generic Medicines in Malaysia”, 37.5 % of respondents thought locally manufactured generic medicines were of equal quality to imported generics from international manufacturers. Approximately 60 percent of respondents, on the other hand, agreed that domestic generics are equally effective and safe as imported generics. Imported generic

products, according to nearly half of the respondents (47.9%), must pass a more rigorous approval process.

Ferraz and Nardi, (2013), in their study mentioned that, multiple factors may contribute to the decision to buy a generic drug. Among these perceived safety, effectiveness and price appear to be the most important factors. Patients were willing to pay significantly more for branded pharmaceuticals than for generic drugs, owing to the perception that branded treatments were more effective and safe.

According to a survey conducted in Gonder, Ethiopia, the majority of respondents (57.5 %, n = 225) agreed or strongly agreed that their physician should inquire about their medicine preferences, and nearly half (47 %, n = 184) agreed that they should have the option of choosing between brand and generic medicines. Furthermore, In addition, over half of the participants (49.4%, n = 193) agreed or strongly agreed that brand-name drugs are more effective than generics and should be used only for serious diseases. In terms of quality, more than a third of the respondents (36.6 %, n = 143) agreed/strongly agreed that generic medicines are created using lower-quality ingredients. Furthermore, the researchers conclude that there is a knowledge gap among patients regarding generics, with patients believing generics are less effective and of lower quality than their branded counterparts (Gebresillassie et al., (2018).

v. Ethnocentrism

Consumer ethnocentrism is defined as "consumer beliefs about the appropriateness, even morality, of purchasing foreign-produced products and consumer loyalty to products manufactured in their home country." (Shimp and Sharma, str. 280, 1987). Consumer ethnocentrism has a direct and negative impact on their willingness to purchase foreign products. These findings suggest that ethnocentrism leads to a negative attitude toward reduced purchasing intentions for foreign products. According to Shimp and Sharma (1987), consumers refuse to buy foreign products because they believe they are harmful to the national economy and cause unemployment.

Evaluating consumer ethnocentrism levels is deeply important to strategic decision making in the international marketplace because of its ability to give decision makers a signal for what level of standardization and specialization to apply in their strategies. Consumer ethnocentrism is also significant to international positioning, international branding, market entry mode decisions, and the materialization of country-of-origin effects (Siamagka & Balabanis, 2015). Thus, Consumers with high levels of ethnocentrism will perceive imported products as a threat to local economies, governments, organizations, and individual and seek to preclude the growing of foreign firms to neutralize this threat (Siamagka & Balabanis, 2015).

Several studies have looked into the relationship between ethnocentrism and purchase behavior. Consumer ethnocentrism refers to consumers' beliefs about the appropriateness and morality of purchasing foreign-made products in the marketing context (Piron 2002).

Consumers with stronger consumer ethnocentrism have more favorable opinions about domestic products, according to Jianlin et al. (2010), since they believe that manufacturers from their own nation provide the greatest items. Furthermore, Qing et al. (2012) found that consumer ethnocentrism had a statistically significant impact on domestic fruit buying attitudes.

The study was done by Čvirik (2020) in Slovakia. The findings imply a substantial correlation between consumer ethnocentrism and patriotism. Based on these findings, consumer ethnocentrism and patriotism can be identified as factors that positively influence a preference for and evaluation of domestic products. According to Tomi Maksan, Kovai, and Cerjak (2019), consumer ethnocentrism has a strong and positive influence on attitudes toward domestic wine purchase.

Another Palestinian study (Abdalrahman, Fehér, and Lehot, 2018) found strong positive associations between customer age, purchasing intention, and ethnocentrism ($p < .01$). A significant positive relationship between purchase intention and consumer ethnocentrism was also discovered. Palestinian people prefer to choose domestically produced food over imported goods, believing that domestic products are worth purchasing and consuming.

Maheswaran and Chen, (2006). In their research, consumers may have different feelings towards products manufactured in their home country versus foreign countries. Also, consumers feeling towards products from their home countries are driven by considerations that may be unrelated to the product efficacy or performance or its competitive position. Consumers' preferences for products made in their home countries have been found to be correlated with personality variables like level of dogmatism and conservatism. With the increasing globalization of business, foreign brands are available in more parts of the world and the competition between domestic and multinational firms is increasing in virtually all countries. Purchasing imported products, according to ethnocentric customers, is immoral since it harms the domestic economy, results in job losses, and is unpatriotic. Non-ethnocentric consumers, on the other hand, should judge foreign products on their own merits, regardless of where they are made (Maheswaran and Chen, 2006).

Another study conducted in Malaysia, shows that consumer ethnocentrism has an impact on Malaysian consumers' domestic products evaluation and buying preferences for specific products. The Malaysian sample in this study proved to be highly ethnocentric as they had the tendencies to buy local products (Muhamad and Razak 2004).

For this research project, the following conceptual framework and research hypothesis were developed based on previous research studies and literature reviews. As a result, five independent variables (product knowledge, price, pharmacist's recommendation, product quality, and ethnocentrism) are identified as potentially influencing the dependent variable (purchase decision).

2.3. Conceptual Framework

2.3.1. Conceptual Model

Based on the above related literatures and concepts the following conceptual frame work was developed. Furthermore, relevant hypotheses will be presented based on the review of each concept.

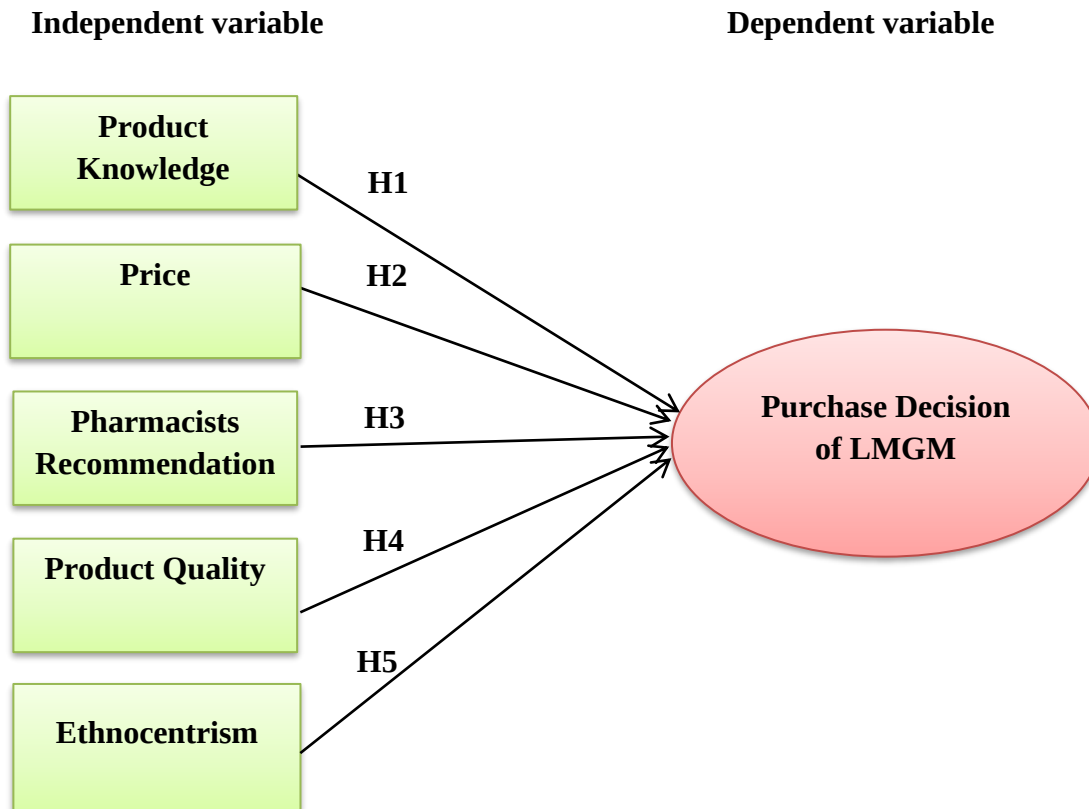


Figure 2.5 Conceptual framework [Source Lee and Lee (2009), Ghalandari and Norouzi (2012), Naing et al., (2013), Ayub and Kusumadewi's (2021), Wube, M. (2020), Lins Ferreira et al.,(2017), Habash and Al-Dmour, (2020), Pujari et.al. (2016), Maha N. et al.,(2021), Ferraz and Nardi, (2013), Abdalrahman, Fehér, and Lehot, (2018), Tomi Maksan, Kovai, and Cerjak, (2019)]

2.3.2 Research Hypothesis

Based on the conceptual framework the underlined hypotheses were formulated and tested.

H1: Product knowledge has a positive and significant effect on consumer purchase decision of locally manufactured generic medicines.

H2: Price has positive and significant effect on consumer purchase decision of LMGM.

H3: Pharmacist's recommendation has positive and significant effect on consumer purchase decision of LMGM.

H4: Product quality has positive and significant effect on consumer purchase decision of LMGM.

H5: Ethnocentrism has positive and significant effect on consumer purchase decision of LMGM.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter contains a discussion on various methodological techniques that were used in the study. The section presented details of the involved research approach and research design, and described the research methods, sampling techniques, and instruments that were used in the data gathering, collection procedures, and analysis methods.

3.1 Research Approach

A quantitative research method was used in this research. A cross-sectional descriptive and factor analysis survey was conducted in Addis Ababa city at 647 pharmacies. Those pharmacies were selected from eleven sub-cities, which represent all kinds of customer types in Addis Ababa. A cross-sectional survey was used since the independent and dependent variables were measured at one point in time due to cost and time constraints (Bhattacharjee, 2012).

The intention of using a quantitative method is to assess the data collected from the questionnaire to come up with the desired results and to examine if the independent variables have a direct effect on the dependent variable.

3.2 Research Design

According to Burns and Bush (2010), a research design is an agreed upon advance decision that creates the main strategy. They consequently specify the approaches and procedures aimed at gathering and analyzing the needed data. A research strategy is not just a work plan but ensures that the evidence attained supports answers to initial questions as clearly as possible.

According to Kothari (2004), Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

This study employed descriptive and explanatory research approaches in order to determine what factors, at what level, factors that influence consumers' purchase behavior while purchasing

locally manufactured generic pharmaceuticals. Descriptive studies are conducted to answer who, what, when, where, and how questions and measure associations (Mcdaniel and Gates, 2015). Explanatory studies investigate whether the value of one variable causes or determines the value of another variable, in an attempt to establish linkage between them and generally measure the level of impact of the independent variables on the dependent variable (Mcdaniel and Gates, 2015).

3.3 Data Types and Source

To finish this study in a more organized manner, information and data were gathered from both primary and secondary sources. A self-administered questionnaire was used to collect primary data; it is easier to generate analysis on a larger number of participants and the respondent can understand it. Secondary sources include previously conducted research papers on different issues in pharmaceuticals, relevant journals, and articles on the pharmaceutical industry, as well as various books and similar research.

3.4 Population of the study

The study population consists of all consumers who buy locally manufactured generic medicines aged 18 and above who are Ethiopian nationals and who visited the selected community pharmacies during the data collection period in Addis Ababa. The list of all community pharmacies was used as a frame to select community pharmacies. The list was obtained from the Addis Ababa Food, Medicine, and Healthcare Administration and Control Authority (AAFMHACA). The rationale behind choosing Addis Ababa as a population for the study is that the people of the city are a combination of different parts of the country; they can represent different cultures, religions, and social and economic backgrounds.

3.5 Sampling procedure

3.5.1 Sampling Technique

In this study, the researchers used a multistage sampling technique. According to AFMHACA, there are 647 pharmacies in Addis Ababa. Out of these 647 pharmacies, 33 were randomly selected using a random table.

The researcher used the non-probability sampling method (Kothari, 2004) at shopping intercepts of shopping centers, which are located in eleven sub-cities in Addis Ababa. which vary by ethnic composition, geographic size, and socioeconomic status. From each sub-city, three pharmacies were selected by convenience sampling method. Convenience sampling is a technique whereby samples are drawn from populations that are close to hand, readily available, or convenient (Bhattacharjee, 2012). Hence, due to simplicity and inexpensiveness, this research used a convenient sampling method. The researcher used non-probability sampling because it is difficult to estimate the probability that each respondent in the population will be included in the sample. Non-probability sampling can be used in small inquiries and research by individuals. This design may be adopted because of the relative advantage of time and money inherent in this method of sampling (Kothari, 2004).

3.5.2 Sample Size

The total number of consumers from community pharmacies in Addis Ababa is too large and is considered infinite. Hence, including all populations was not possible. So determining sample size is a must. The sample size for this study was determined using Cochran's (1977) sampling calculation method, which assumed an infinite population and a 95% confidence level.

$$n_o = \frac{Z^2 pq}{e^2}$$

Where n_o =Sample size

Z= the selected critical value of desired confidence level

P= is the estimated proportion of an attribute that is present in the population

$q=1-p$

e= is the desired level of precision

$$n_o = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = \underline{384.16}$$

The result from calculating the sample size is 384.16 samples, which mean that the appropriate sample size for this study should be at least 384 samples.

3.6 Data Collection Method

A self-administered questionnaire was used to collect data. The questionnaire was carefully constructed to assess the impact of the specified independent variables on the dependent variable. A five-point Likert scale was used to create this self-administered questionnaire. The kinds of questions, their format, wording, and sequences were all carefully examined. There were two sections to the questionnaire. The participants' demographic profile was covered in the first section, which included their age, gender, monthly income, and educational level. The second section used a Likert scale of 1 to 5 to indicate how much they agreed or disagreed with the sentences about the constructs under study.

Because some respondents may not be fluent in English, the questionnaire was translated into Amharic, then back to English, and then rectified for any variations to improve translation accuracy. Prior studies in the same field that looked at the factors that influence consumer purchasing decisions on medicines encouraged this data collection approach, which was adapted to the LMGM without changing the concepts in the construct. Because the goal of this study is to analyze the link between different variables, utilizing a questionnaire to gather data has the advantage of laying the groundwork for generalizing the results.

From the second week of March to the second week of April 2022, the questionnaire was disseminated uniformly throughout randomly selected community pharmacies, and consumers were intercepted at the specified community pharmacies immediately after an actual purchase of LMGM. The afternoon hours of 12:00 PM to 1:30 PM and 5:00 PM to 8:00 PM were chosen because the number of customers at community pharmacies increases during these hours of the day, allowing the researcher to collect responses from a variety of customers.

3.7 Data analysis method

Data analysis refers to examining what has been collected in a survey or experiment and making deductions and inferences (Kombo and Tromp, 2006). Descriptive and inferential statistical methods were used to describe and interpret the results of the study. The mean, standard deviation, and frequency percentages were used to summarize sample population characteristics obtained through the questionnaire. The inferential statistics indicators that were used for the

research are correlation and multiple regressions. Data entry and analysis were carried out using statistical software.

3.8 Validity and Reliability

3.8.1 Validity

The extent to which a test measures what we actually want to measure is referred to as its validity. The extent to which a measuring instrument provides adequate coverage of the topic under study is referred to as content validity (Kothari, 2004). The validity of the study, therefore, was checked through the content validity method by taking advice from the advisor and an experienced person on the topic under study and adopting questionnaires from previous researchers to increase its validity.

3.8.2 Reliability

Reliability is broadly defined as the degree to which measures are free from error and therefore yield consistent results (Zikmund, 2010). Reliability can be computed through different methods like test-retest reliability, internal consistency reliability, and equivalent form reliability. In this study, questionnaire reliability was checked by using the internal consistency method to measure the correlation between each item in the questionnaire. Cronbach's alpha coefficient is one of the most commonly used indicators of internal consistency. Ideally, the Cronbach's alpha coefficient of scales should be above 0.7 (Pallant, 2005).

As a result, reliability checks for questionnaires were performed using the Cronbachs Alpha statistic method to ensure internal consistency through the pre-testing method. The basic reason for carrying out pre-testing is to determine whether the instruments are going to serve the purpose for which they will be assigned.

3.9 Ethical consideration

To avoid any ethical issues, the information obtained from questionnaires was used for the purpose of the dissertation. The ethical policy of companies regarding their information was respected. All the contributors to this research were informed of all the details regarding the

survey. All participants who were asked had complete discretion over whether or not to participate in the survey.

Furthermore, participants would be free to refuse to answer any question they deemed inappropriate. The participants would have the right to give their opinion on the product, which was only used for research purposes. Participation in the survey was based on voluntarism. The participants can themselves decide whether they want to be part of the survey or not. And the participants could withdraw at any time during the survey, and confidentiality was protected.

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This study was conducted to identify factors affecting consumers' purchase decisions of locally manufactured medicine in Addis Ababa. Out of 384 questionnaires distributed to targeted respondents, only 346 were complete, valid, and appropriate for analysis, which represents a 90% valid response rate. The analysis entails the use of statistical procedures such as basic descriptive statistics, as well as correlation and multiple regression analysis utilizing SPSS 26.0 to substantiate the relationship between the independent and dependent variables.

4.2 Reliability Analysis

Reliability is broadly defined as the degree to which measures are free from error and therefore yield consistent results (Zikmund, 2010). In this study, questionnaire reliability was checked by using the internal consistency method to measure the correlation between each item in the questionnaire. Cronbach's alpha coefficient is one of the most commonly used indicators of internal consistency. Ideally, the Cronbach's alpha coefficient of scales should be above 0.7 (Pallant, 2005).

Table 4.1 Summary of Reliability Analysis

Reliability Statistics		
Variables	Cronbach's Alpha	N of Items
Product Knowledge	.784	4
Price	.844	5
Pharmacists' recommendation	.810	4
Product quality	.796	4
Ethnocentrism	.788	4
Purchase Decision	.737	5
Composite/overall reliability	.931	26

Source: Survey Result (May, 2022)

4.3. Descriptive Analysis

The descriptive statistical overview of the measurement items, the independent variables, the dependent variables, and the results are all presented in this section.

4.3.1 Demography of the Respondents

The demographic data of the respondents is shown in table 4.2 below. It includes information about the respondents' gender, age, income, and educational level.

Table 4.2 Demographic information

Age of the respondents					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-30	138	39.9	39.9	39.9
	31-40	111	32.1	32.1	72.0
	41-50	53	15.3	15.3	87.3
	51-60	31	9.0	9.0	96.2
	>60	13	3.8	3.8	100.0
	Total	346	100.0	100.0	
Gender of the respondents					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	178	51.4	51.4	51.4
	Male	168	48.6	48.6	100.0
	Total	346	100.0	100.0	
Educational Level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary school completed	31	9.0	9.0	9.0
	High school completed	55	15.9	15.9	24.9
	Diploma	87	25.1	25.1	50.0
	Degree	108	31.2	31.2	81.2
	Master's Degree and above	55	15.9	15.9	97.1
	No formal education	10	2.9	2.9	100.0

	Total	346	100.0	100.0	
Monthly Income (Birr)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<1000	12	3.5	3.5	3.5
	1001-2000	27	7.8	7.8	11.3
	2001-3000	33	9.5	9.5	20.8
	3001-4000	70	20.2	20.2	41.0
	4001-5000	74	21.4	21.4	62.4
	>5000	130	37.6	37.6	100.0
	Total	346	100.0	100.0	

Source: Survey Result (May, 2022)

Based on Table 4.2, shows that out of 346 respondents, 178 (51.4%) of the respondents were females. while the remaining 168 (48.6%) were males. Regarding the age of respondents, 138 (39.9%) fell into the age range of 18–30 years old, while only 13 (3.8%) of the respondents were over 60 years old. This implies that the majority of locally manufactured medicine consumers are young and adult, making pharmaceutical marketing promotional activities more easily addressed. According to the findings, 130 (37.6%) of respondents have a monthly income of more than 5,000 birr, while only 12 (3.5%) have a monthly income of less than 1000 birr. With respect to educational level, 108 (31.2%) respondents were Bachelor's degree holders, while there were only 10 (2.9%) respondents who had no formal educational background. This implies that the majority of respondents were educated, pharmaceutical marketers can readily communicate product information and other promotional activities using various communication media.

4.3.2 Descriptive Analysis of Variables

In order to compare respondents' purchase decisions towards locally manufactured medicines, mean and standard deviations were computed. The mean represented the percentage of respondents who agreed or disagreed with each variable's claims. The higher the mean, the more the responders agreed with the statements, whereas the lower the mean, the less they agreed. Furthermore, the standard deviation revealed the variability of the response.

Table 4.3 Descriptive Statistics of the variables

Descriptive Statistics			
	N	Mean	Std. Deviation
Product Knowledge	346	3.7110	.77572
Price	346	3.6214	.77040
Pharmacists Recommendation	346	3.7890	.71849
Product Quality	346	3.6539	.74744
Ethnocentrism	346	3.3172	.76471
Purchase Decision	346	3.6613	.63625
Valid N (listwise)	346		

Source: Survey Result (May, 2022)

All the variables; product knowledge, price, pharmacists' recommendation, product quality, ethnocentrism, and purchase decision have a mean score that is higher than the average, indicating that consumers considered all independent variables when deciding to buy locally manufactured medicines. The pharmacists' recommendations had a higher average score than the others. This indicates that respondents were more likely to agree that pharmacist recommendations influenced their decision to purchase locally manufactured drugs.

The mean value for the responses for product knowledge is at the level of agreement, and this is an indication that consumers of locally manufactured pharmaceuticals in Ethiopia have an adequate level of knowledge before they make a buying decision. According to the responses analyzed in the above table, the mean score for product quality falls within the agreed range, indicating that Ethiopian consumers believe that local produce pharmaceuticals are as safe and effective as imported pharmaceuticals, and that the quality of medicines influences their purchasing decisions.

4.4. Inferential Analysis

4.4.1 Pearson Correlation Analysis

Correlation analysis examines the links between variables and helps in determining the direction and significance of the association. The correlation coefficient ranges from -1 to 1, with (-1) indicating a negative correlation to (0) indicating an uncorrelated state to (1) indicating positively correlated.

The researcher can measure the strength of the link between the variables of interest using a correlative matrix with dependent and independent variables. (Marczyk, Dematteo, and Festinger, 2005). The bivariate correlation test determines if two variables have a linear relationship (as one variable increases, the other also increases, or as one variable increases, the other variable decreases) (Pedhazur, 1982).

According to Mooi and Marko Sarstedt (2011), the strength of the relationship between two variables follows the following pattern.

Pearson coefficient	Value
0.80 – 1.00	Very strong
0.60 – 0.79	Strong
0.40 – 0.59	Moderate
0.20 – 0.39	Weak
0.00 – 0.19	Very weak

Table 4.4 Correlation between the independent variables and the dependent variable

		Correlations					
		Product knowledge	Price	Pharmacists Recommendation	Product Quality	Ethnocentrism	Purchase Decision
Product knowledge	Pearson Correlation	1	.619**	.524**	.396**	.501**	.697**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	346	346	346	346	346	346
Price	Pearson Correlation	.619**	1	.587**	.417**	.360**	.676**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	346	346	346	346	346	346
Pharmacists Recommendation	Pearson Correlation	.524**	.587**	1	.576**	.342**	.715**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	346	346	346	346	346	346
Product Quality	Pearson Correlation	.396**	.417**	.576**	1	.434**	.615**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	346	346	346	346	346	346
Ethnocentrism	Pearson Correlation	.501**	.360**	.342**	.434**	1	.623**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	346	346	346	346	346	346
Purchase Decision	Pearson Correlation	.697**	.676**	.715**	.615**	.623**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	346	346	346	346	346	346

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

Source: Survey Result (May, 2022)

Though the strength of the relationship varies across different items of the variables, all of the independent variables (product knowledge, price, pharmacists' recommendation, product quality, and ethnocentrism) have a positive and statistically significant relationship with the dependent variable (consumers' purchasing decision) with a Sig (2-Tailed) value less than 0.05, as shown in the correlation analysis with Pearson's correlation coefficient result in the above table. It means that the researcher can be 95% confident that the relationship between variables is not coincidental.

As a result, Table 4.4 shows the independent variables are significantly and positively correlated with dependent variable Product knowledge ($r=0.697$, $p<.001$), Price ($r=0.676$, $p<.001$),

Pharmacists' recommendation ($r=0.715$, $p<.001$), Product quality ($r=0.615$, $p<.001$), and Ethnocentrism ($r=0.623$, $p<.001$).

From the above table, finding consumer purchasing decisions of locally manufactured medicine correlate with product knowledge with the value of ($r = 0.697$), price ($r = 0.676$), and pharmacist's recommendation ($r = 0.715$) have a positive and strong correlation between purchasing decisions. This indicates that consumers highly considered product knowledge, pharmacists' recommendations, and price when they decided to purchase locally manufactured medicines. Furthermore, there is a correlation between product quality and purchasing decision, with ($r = 0.615$), indicating a strong correlation between product quality and purchasing decision. The correlation analysis further revealed that there is a strong ($r = 0.623$) relationship between customers' ethnocentrism and their purchase intentions. We can infer from the above table that the dependent and independent variables have a positive and strong relationship. The above table demonstrates that all of the variables have a strong positive association, with a 2-tailed correlation that is significant at the 0.01 level.

4.5 Multiple Regression Analysis

Regression analysis is a technique for predicting a dependent variable from one or more independent variables (Sreejesh, Mohapatra, and Anusree, 2014). Regression analysis helps in the analysis of relationships between multiple independent variables and a single dependent variable. According to Field (2009), it enables researchers to assess whether the independent variables have a significant relationship with the dependent variable and to measure the relative strength of the effects of distinct independent variables on the dependent variable. Various statistical assumptions, such as normality, multi-collinearity, and linearity, must be tested before performing a multiple regression.

4.5.1 Normality

The term "normality" refers to a symmetrical, bell-shaped curve with the highest frequency of scores in the middle and lower frequencies at the extremes (Julie Pallant, 2016). The skewness and kurtosis measurements can be used to assess normality to some extent.

Meyer et al. (2006) also stated that the larger the sample size in the study, the more exact and stable the population parameter estimations for statistical inferences would be. The central limit theorem states that if the sample size is 30 or above, the sampling distribution will tend to be normal, regardless of the population distribution. According to the central limit theorem, the sample size employed in this study was large enough to satisfy the criteria of normality (Field, 2009). The skewness and kurtosis values used to assess the normality of the data distribution are shown in the table below.

Table 4.5 Normality measurement

Descriptive Statistics

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Product knowledge	346	-1.440	.131	1.357	.261
Price	346	-1.275	.131	.689	.261
Pharmacists Recommendation	346	-1.366	.131	2.257	.261
Product Quality	346	-1.395	.131	1.576	.261
Ethnocentrism	346	-.508	.131	-.392	.261
Purchase Decision	346	-1.342	.131	2.167	.261
Valid N (listwise)	346				

Source: Survey Result (May, 2022)

Skewness is a measure of a distribution's asymmetry. Kurtosis, on the other hand, is a measure of how closely observations cluster around a central point. However, in large samples (200 or more) with small standard errors, this criterion should be changed to ± 2.58 , and in very large samples, no criterion should be applied, i.e., skewness and kurtosis significance tests should be avoided (Ghasemi, 2012). Even though the negative sign suggests skewness to the left, all variables are within the range for both measures of normalcy.

Furthermore, according to Malhotra and Birks (2007), normal probability plots are frequently used as an informal way of assessing the non-normality of a set of data. The plots differ from residuals plots in that the standardized residuals are compared to the normal distribution, according to Hair et al. (1998). In general, the normal distribution produces a straight diagonal

line, which is compared to the plotted residuals. The residual line will closely follow the diagonal if the distribution is normal (Hair, et al., 1998). As shown in the graphs below, the P-P plots are a straight line, indicating that the residuals have a substantially normal distribution, as suggested by Hair et al (1998).

In addition to skewness and kurtosis, the histogram diagram presented below on Fig 4.1 also helps to show the normality of the data. The data distribution can be assumed to be normal because the histogram shows that the majority of the data is concentrated in the center of the chart.

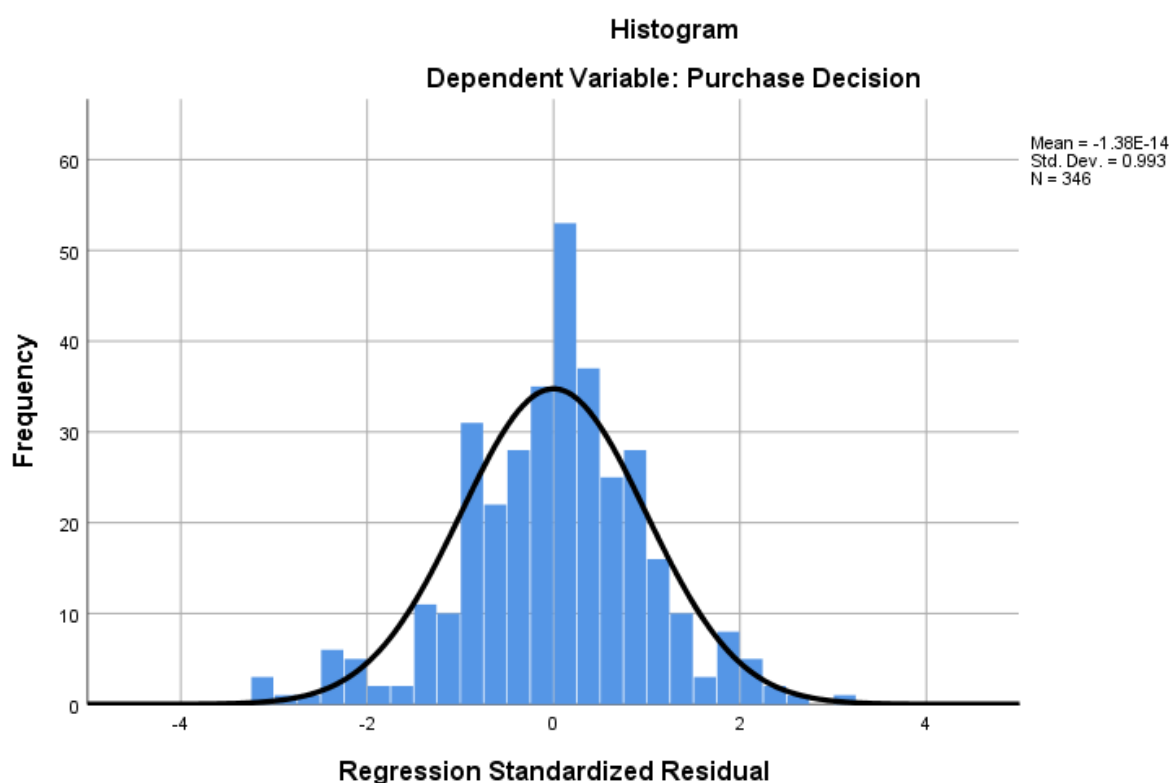


Figure 4.1 Histogram plot for regression standardized residual

Source: Survey Result (May, 2022)

4.5.2 Multi- Collinearity

The relationship between the independent variables is referred to as this. When the independent variables are significantly correlated ($r = .9$ and higher), multicollinearity exists (Julie Pallant, 2016). In this section the correlation between independent variables; Product knowledge (PN),

Price (P), Pharmacist recommendation (PR), Product quality (PQ) and Ethnocentrism (EC) have been presented and analyzed.

Tolerance and the variance inflation factor can be used to test this assumption (VIF). When the VIF value is less than ten and the tolerance statistics are greater than 0.2, it is fair to assume that there is no collinearity in the data (Field, 2009). A small tolerance value implies that the variable in question is nearly a perfect linear combination of the independent variables already in the equation and should not be included in the regression equation. A good regression model should not have a strong correlation among its independent variables or a multi-collinearity problem, and the variance inflation factor (VIF) should be between 1 and 10, with a tolerance threshold greater than 0.10 (Julie Pallant, 2016).

Table 4.6 Multi-collinearity problem test of VIF and tolerance

Collinearity Diagnostics

Model	Collinearity Statistics	
	Tolerance	VIF
Product knowledge	.506	1.977
Price	.520	1.923
Pharmacists Recommendation	.503	1.987
Product Quality	.602	1.660
Ethnocentrism	.682	1.466

Source: Survey Result (May, 2022)

The resultant VIF (coefficient of collinearity statistics) value is less than 10, and the tolerance value of all five independent variables is larger than 0.10, as shown in table 4.6 As a result, it can be inferred that this regression model has no multi-collinearity symptoms.

4.5.3 Linearity

The degree to which the change in the dependent variable is related to the change in the independent variables is referred to as linearity. In these tests, the normal distribution is used to draw a straight diagonal line, and the displayed residuals are compared to the diagonal. The residual line will closely follow the diagonal if the distribution is normal (Field, 2009). The

regression residuals were plotted using SPSS software to see if the connection between the dependent variable: consumer purchase decision and the independent variables: product knowledge, price, pharmacist's recommendation, product quality, and ethnocentrism is linear.

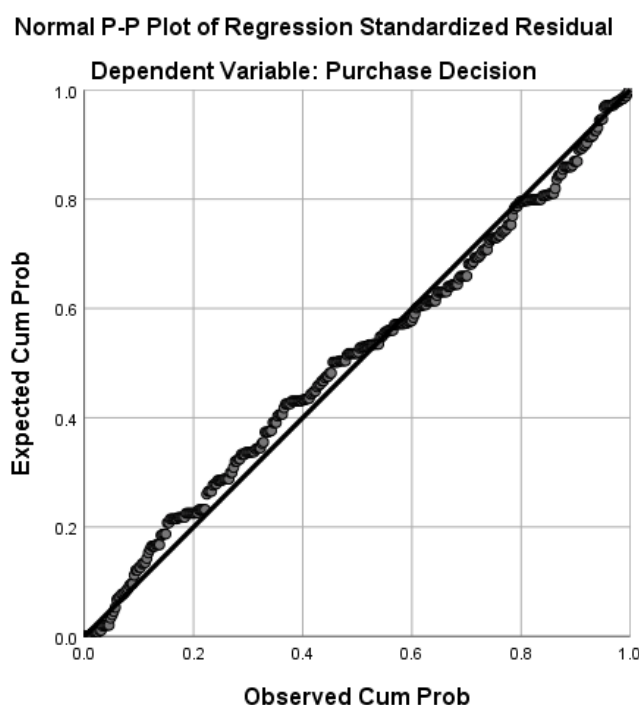


Figure 4.2 Normal Point Plot of Standardized Residual

Source: *Survey Result (May, 2022)*

4.5.3 Homoscedasticity

The homoscedasticity assumption is verified using the scatterplot diagram. We may use the diagram to see if the residuals are evenly distributed, or if they tend to cluster together at particular values and spread out at others. On the X axis, there is an equal distribution of values below and above zero, and the residuals are slightly scattered to the right from left and right of zero on the Y axis, as shown in the scatterplot diagram below. The residuals plot is the same width for practically all values of the anticipated dependent variable, purchase decision, as shown in the graphs below (Julie Pallant, 2016).

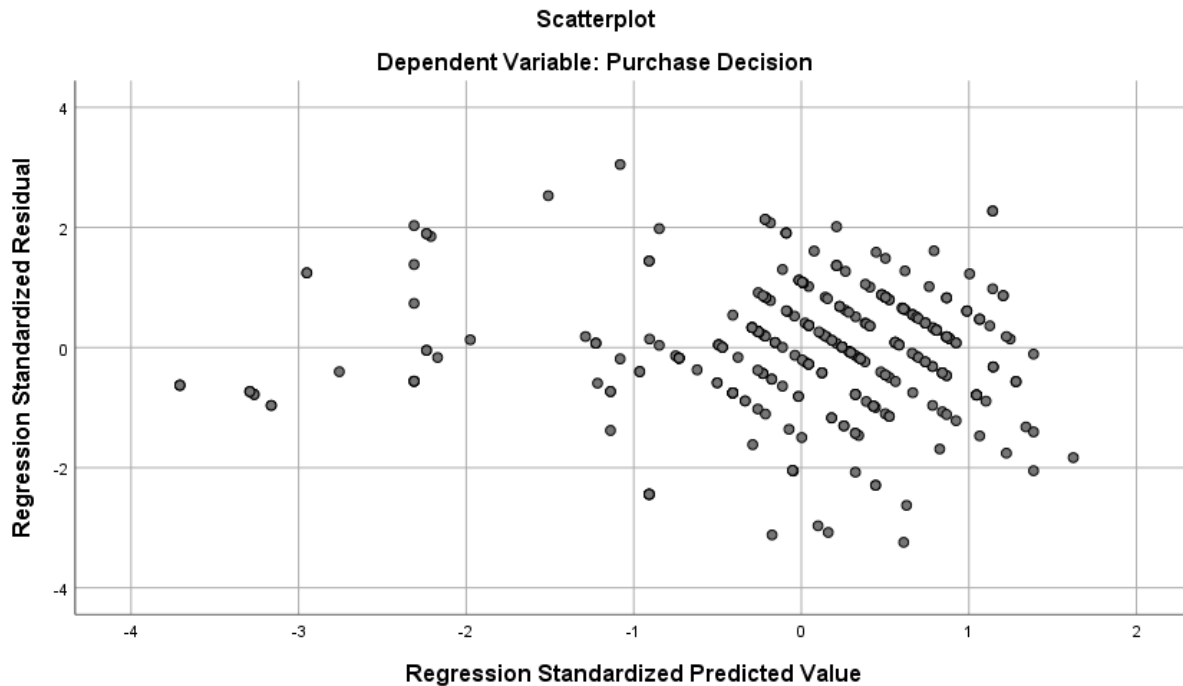


Figure 4.3 Scatterplot for testing homoscedasticity

Source: Survey Result (May, 2022)

4.6 Multiple Regression Results

Multiple regression analysis was utilized to inspect the factors (product knowledge, price, pharmacists' recommendation, product quality, and ethnocentrism) influencing consumer purchase decision in locally manufactured medicine in Addis Ababa.

The model summary, ANOVA, and coefficients are shown in this section, and they illustrate the degree of relationship between each of the five independent variables and purchase decision, which is the mode's dependent variable.

4.6.1 Multiple Regression Model Summary

We can determine the effect and significance of each independent variable, which is the consumer purchase decision, using multiple regressions.

Table 4.7 Regression Model Summary Table

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.876 ^a	.768	.764	.30886

a. Predictors: (Constant), Ethnocentrism, Pharmacists Recommendation, Price, Product Quality, Product knowledge

b. Dependent Variable: Purchase Decision

Source: Survey Result (May, 2022)

The simple correlation between the predictor variables (product knowledge, price, pharmacists recommendation, product quality, and ethnocentrism) and the outcome variable (purchase decision) with a range of 0 to 1 is indicated by R in the model summary. The value was 0.876, indicating a strong relationship between the predictors and the outcome variables. The R^2 value indicates how much of the variance in the outcome is explained by the predictors. As revealed by the model summary, 76.8% of consumers purchase decision is affected by Product knowledge, Price, Pharmacists recommendation, Product quality, and Ethnocentrism, and the rest is influenced by other factors that are not accounted for in the model. The adjusted R^2 indicates how well the model generalizes and to what extent its value remains the same as, or very similar to, that of R^2 . In this case the difference for the final model is small as the difference between the values is $.768 - .764 = .004$ (about 0.4%). According to Field (2009), this shrinkage suggests that the model would explain for about 0.4 percent less variance in the outcome if it were drawn from the population rather than a sample.

4.6.2 Regression ANOVA Table

ANOVA determines whether the model is statistically acceptable in general i.e., whether the independent variables are in a significantly good degree of prediction of the outcome variable. Table 4.8 shows that the independent variables significantly predict the dependent variable (Purchasing Decision) with $F=224.801$ and $\text{sig}=0.000$. The F-test is used to determine the overall probability of a chance relationship between the dependent variable and all of the independent variables (SPSS, version 26). The F-test result of the study is 224.801 with a significance of 0.000 meaning that the probability of these results occurring by chance is less than 0.05 i.e. the variation that is explained by the model is not simply by chance.

The ANOVA tables used to assess the model's overall fit are shown in the table below.

Table 4.8 ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	107.226	5	21.445	224.801	.000 ^b
	Residual	32.435	340	.095		
	Total	139.661	345			

a. Dependent Variable: Purchase Decision

b. Predictors: (Constant), Ethnocentrism, Pharmacists Recommendation, Price, Product Quality, Product knowledge

Source: Survey Result (May, 2022)

4.6.3 Regression Coefficient Analysis of the Model

A standardized regression coefficient Bate (β) is useful in multiple regression since it allows you to compare the relative strength of each independent variable's interaction with the dependent variable (Pedhazur, 1982). A positive coefficient indicates a positive relationship between the predictor and the outcome, while a negative coefficient indicates a negative relationship.

Table 4.9 Regression Coefficients Table

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.156	.107		1.463	.145
	Product knowledge	.177	.030	.216	5.885	.000
	Price	.169	.030	.204	5.642	.000
	Pharmacists Recommendation	.266	.033	.300	8.153	.000
	Product Quality	.130	.029	.153	4.550	.000
	Ethnocentrism	.226	.026	.272	8.601	.000

a. Dependent Variable: Purchase Decision

Source: Survey Result (May, 2022)

The direction and relationship between the dependent and independent variables are shown in the model coefficients table above. The constant beta value (β) and p-value of the variables are shown in the table to analyze the hypothesis' significance. A positive beta merely signifies that the dependent and independent variables have correlated. The outcome variable will increase by the given beta coefficient value for every one-unit increase in the predictor variable. From the above table, the standardize beta value for pharmacists' recommendation is 0.300. This indicate us, this variable has relatively strong degree of importance for consumers' purchase decision than others. This reveals that pharmacists' recommendations had a greater impact on overall purchase decision variability than product knowledge, price, product quality, and ethnocentrism. All independent variables have p values less than 0.01. This indicates that there is a strong positive and significant relationship between the independent variables (pharmacists' recommendation, product knowledge, price, product quality and ethnocentrism) and dependent variable (purchase decision).

The specified regression equation has the following form when referring to the above analysis (Table 4.9):

$$(X)=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5+ e \text{ where}$$

(X)= Dependent variable

β_0 = Y intercept

β = Coefficients

X= Independent variables and

e = error terms

Hence the regression equation will be:

$$PD=0.156+0.216PK+0.204P+0.300PR+0.153PQ+0.272EC+e$$

Where:

PD= Consumers' Purchase Decision

PK= Product Knowledge

P= Price

PR= Pharmacist's Recommendation

PQ= Product Quality

EC= Ethnocentrism

e = error terms

The primary objective of this study is to determine what factors influence consumers' purchase decisions while purchasing locally manufactured pharmaceuticals. By analyzing the coefficient and p values in the table above. The positivity and statistical significance of the independent variables' influence on the dependent variable can be determined.

As shown in Table 4.9, of the five independent variables, all of them were significant variables in the regression model with a significance p value less than 0.05. Product Knowledge ($\beta = 0.216$, $p = 0.000$), Price ($\beta = 0.204$, $p = 0.000$), Pharmacist's Recommendation ($\beta = 0.300$, $p = 0.000$), Product Quality ($\beta = 0.153$, $p = 0.000$) and Ethnocentrism ($\beta = 0.272$, $p = 0.000$) have a significant influence on consumers' buying decision of locally manufactured medicines at 95% confidence level ($p < 0.05$). The results provide support for H1, H2, H3, H4, and H5 in the current study.

4.6 Discussion of Findings

The objective of this study was to see how product knowledge, pricing, pharmacist recommendation, product quality, and ethnocentrism influenced purchase decisions for locally manufactured medications. As a result, this section discusses the research's key findings and compares them to those of similar past studies.

The research finding shows that there is a statistically significant and positive relationship between product knowledge and the purchase decision-making for locally manufactured medicines. Previous studies regarding product knowledge also support the significance of product knowledge on purchase decisions. Lee and Lee, (2009), Ghalandari and Norouzi (2012), Ayub and Kusumadewi's (2021) and Omotayo et al., conducted research (2021) found that the more you know about a product, the more likely you are to buy it. Consumer product knowledge has an effect on the emergence of purchasing intentions. Consumers with a high level of product knowledge evaluate products based on their quality because they trust their information.

Despite the fact that the majority of the respondents were quite well paid, the price of locally manufactured medicines was a major worry for them. In other words, price has a favorable and considerable impact on customers' decisions to purchase locally manufactured drugs. This means that before purchasing locally manufactured medicine, consumers frequently verify the pricing.

This finding is supported by previous research by Nokelainen et al., (2020), Wube, M. (2020), Lins Ferreira et al., (2017), El-Dahiyat and Kayyali et al., (2017), and El-Dah (2013).

As a result, with a mean value of 3.71, the study found that a pharmacist's recommendation has a positive and significant effect on customers' purchasing decisions for locally manufactured pharmaceuticals. This result is supported by Wube, M. (2020), who performed research in Ethiopia and found a mean value of 3.93. Furthermore, Gebresillassie et al., (2018), Habash and Al-Dmour, (2020), Maha N. et al., (2021), and Lins Ferreira et al., (2017) support the findings . A high level of trust in the pharmaceutical staff's knowledge and competency, and they are easily swayed by them. Pharmaceutical staffs are influencers in this market category, shaping consumers' perceptions of various products and influencing their final purchase decision. The variety of products that the consumer considers as alternatives might be influenced by the pharmaceutical staff. If we consider that many customers contemplate and base their product selection on the advice or recommendations of pharmaceutical staff, the pharmaceutical staff is likely to have a significant impact on consumers' product purchase decisions.

Buyers are concerned about the price of locally manufactured medicines, but they are also concerned about their quality. Perceived effectiveness and safety appear to be the most important criteria for consumers. At a significance level of 0.000, the product quality coefficient is positive and significant. The positive indication implies that the higher the product quality, the greater the likelihood of purchasing it. This study found that perceived product effectiveness, safety, and price have a favorable and substantial effect on purchasing intention, similar to studies conducted by Ferraz and Nardi (2013) and Lins Ferreira et al. (2017).

The findings of the study confirmed the hypothesis that ethnocentrism has a positive and significant effect on customer buying decisions in the Ethiopian medical industry. People with stronger levels of ethnocentrism have higher purchase intentions. Several previous studies (Jianlin et al. (2010), Qing et al. (2012), Tomi Maksan, Kovai, and Cerjak, (2019), and Abdalrahman, Fehér, and Lehot, (2018) have indicated that ethnocentrism influences customer purchase intent positively. Purchase intention is favorably connected to consumer ethnocentrism according to a study conducted in Malaysian by Muhamad and Razak (2004). The Malaysian sample in this study proved to be highly ethnocentric as they had the tendencies to buy local products.

Table 4.10 Summary of the overall outcome of the research hypothesis

<i>Hypothesis</i>	<i>Reason</i>	<i>Result</i>
H1: Product knowledge has a positive and significant effect on consumer purchase decision of locally manufactured generic medicines.	$\beta=0.216$, $t=5.885$ $p<0.01$	Supported
H2: Price has positive and significant effect on consumer purchase decision of LMGM.	$\beta=0.204$, $t=5.642$ $p<0.01$	Supported
H3: Pharmacist's recommendation has positive and significant effect on consumer purchase decision of LMGM.	$\beta=0.300$, $t=8.153$ $p<0.01$	Supported
H4: Product quality has positive and significant effect on consumer purchase decision of LMGM.	$\beta=0.153$, $t=4.550$ $p<0.01$	Supported
H5: Ethnocentrism has positive and significant effect on consumer purchase decision of LMGM.	$\beta=0.272$, $t=8.601$ $p<0.01$	Supported

Source: Survey Result (May, 2022)

CHAPTER 5

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter contains an overview of the findings, as well as recommendations and suggestions for future research.

5.2 Summary

The objective of this study was to see how product knowledge, pricing, pharmacist recommendation, product quality, and ethnocentrism influenced purchase decisions for locally manufactured medications. A multi-stage sampling method was employed. Simple random sampling and convenience sampling were employed to select a representative sample of community pharmacies and consumers, respectively. To ensure the internal consistency of the study instrument, a reliability test was performed and Cronbach alpha values were evaluated. As a result, the overall Cronbach alpha value was .931, indicating that the measurement scales are internally consistent.

The descriptive statistics analysis shows that all the variables; product knowledge, price, pharmacists' recommendation, product quality, ethnocentrism, and purchase decision have a mean score above average. The mean score of, product knowledge, price, pharmacists' recommendation, product quality, ethnocentrism, and purchase decision were found to be 3.7110, 3.6214, 3.7890, 3.6539, 3.3172 and 3.6613 respectively. These descriptive statistics, however, were unable to determine if the five independent variables have a significant effect on Ethiopian consumers' purchasing decisions for locally manufactured medications. As a result, correlation and multiple regression analyses were used to see how statistically relevant and significant the relationships were.

The Pearson Correlation Analysis revealed that consumer purchasing decisions of locally manufactured medicine correlate with product knowledge with the value of ($r = 0.697$), price ($r = 0.676$), pharmacist's recommendation ($r = 0.715$), product quality ($r = 0.615$) and ethnocentrism ($r = 0.623$) have a positive and strong correlation between purchasing decisions. This indicates

that consumers highly considered product knowledge, pharmacists' recommendations, price, product quality and ethnocentrism when they decided to purchase locally manufactured medicines.

The assumptions of variables (Sample size, Multi-collinearity, Linearity, Homoscedasticity, and Normality) were evaluated before the regression analysis, and acceptable results were obtained in all.

The simple correlation between the predictor variables (product knowledge, price, pharmacists' recommendation, product quality, and ethnocentrism) and the outcome variable with a range of 0 to 1 is indicated by R in the model summary based on the regression summary results. The result of 0.876 indicates that the predictors and outcome variables have a strong relationship. The R² value indicates how much the predictors explain the variance in the outcome. According to the model summary, product knowledge, price, pharmacists' recommendations, product quality, and ethnocentrism influence 76.8% of customers' purchasing decisions, while the rest is influenced by additional factors not accounted for in the model.

The multiple regression analysis also revealed that five independent variables were all significant in the regression model with p values less than 0.05. At the 95% confidence level ($p < 0.05$), product knowledge ($\beta = 0.216$, $p = 0.000$), price ($\beta = 0.204$, $p = 0.000$), pharmacist's recommendation ($\beta = 0.300$, $p = 0.000$), product quality ($\beta = 0.153$, $p = 0.000$), and ethnocentrism ($\beta = 0.272$, $p = 0.000$) have a significant influence on consumers' purchasing decisions of locally manufactured medicines. The findings support the current study's hypotheses **H1**, **H2**, **H3**, **H4**, and **H5**.

5.3 Conclusion

Understanding consumer behavior helps marketers to predict what motivates people to buy and then provide products that respond to those motivations, ensuring that customer expectations are met and exceeded over time. As a result, the research examined at what factors, at what levels, influence customers' purchase decisions when buying generic pharmaceuticals produced locally.

The study used a quantitative research approach using a deductive research paradigm, in which well-established theories and models were applied to discover factors that influence customers' purchasing decisions in Ethiopian markets for locally manufactured pharmaceuticals. To assess the condition of customers' buying behavior and examine its effect on buying decisions, the study used both descriptive and explanatory research approaches. Patients completed 384 questionnaires, of which 346 were deemed to be usable for statistical analysis.

The research identified five factors that influence consumers' buying decisions on locally manufactured medicines: product knowledge, price, pharmacist's recommendation, product quality, and ethnocentrism. All five have a positive and significant effect on consumers' purchase decisions. Thus, consumers' purchase decisions of locally manufactured medicines were mainly determined by these factors.

Finally, it was found that the five hypotheses, which postulate that product knowledge, price, pharmacists' recommendations, product quality, and ethnocentrism have positive and significant effects on consumers' purchase decisions, were confirmed.

5.4 Recommendation

1. Marketers of locally manufactured drugs should focus on raising awareness and internalizing the benefits of purchasing and using locally manufactured pharmaceuticals at various stages of the value chain. Through the organization of seminars, exhibitions, and other promotional events, these companies can increase the knowledge level of users, pharmacists, and medical doctors.
2. Because price has a significant and positive effect on consumer purchasing decisions for locally manufactured medications, marketers should develop the optimal pricing strategy that is aligned with the target customers and competitors.
3. Marketers of locally manufactured medicines should benefit from focusing their promotional efforts on community pharmacists on such things as new generic medicine launches, ongoing medical education, and product description (personal selling).
4. Marketers of locally manufactured pharmaceuticals should improve communication among patients and health care providers about the equivalence, efficacy, and safety of generic drugs

in order to encourage the usage of generic medications so that the company can sustain and attract new customers.

5. Finally, Policy makers should work on raising awareness about the negative impact of consuming foreign products on the local market. Pharmaceutical companies and managers should also improve their product quality to increase Ethiopian consumer satisfaction towards the locally manufactured pharmaceuticals. Marketers must understand consumers' ethnocentric tendencies in order to develop effective marketing strategies both within and outside of national borders. Furthermore, the results of research would also provide marketers to design and customize their own strategic activities in domestic market.

5.5 Recommendations for Further Study

1. Although the researcher was unable to locate any local research studies in the area, there were some in purchasing decisions for other products. However, future researchers and local medicine manufacturers may benefit from these findings.
2. This study has some drawbacks, despite its positive findings. The study employs a quantitative approach to research in order to assess the model. Non-numerical knowledge, such as human emotions, values, and sensations, cannot be compensated for using quantitative data. In the future, researchers can use qualitative or mixed methods to incorporate a detailed description of the respondent's feelings, opinions, and experiences and interpret the meanings of their actions to explore the most important factors that affect pharmaceutical purchase decisions in Ethiopia.
3. This study focused exclusively on community pharmacies in Addis Ababa; it would be difficult to generalize the findings to customers living in other parts of Ethiopia. Therefore, it is recommended that future researchers in both public and private hospital pharmacies, drug stores, and drug vendors in Addis Ababa and outside Addis Ababa do the same study targets patients and pharmacists at least in major cities in Ethiopia.
4. This study did not include factors like packaging, advice of a physician, family/friend's and advertisement suggestions as independent variables. Therefore, future research can be carried out on these variables to examine their effects on purchase decisions of locally manufactured medicines.

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APPENDIX I

Addis Ababa University School of Commerce

Department of Marketing Management Post Graduate Program

Questionnaire (English version)

Dear Respondent;

First and foremost, I want to express my gratitude for your invaluable assistance. I'm working on a paper for my Master's degree in the Arts of Marketing Management. The focus of this study is on the factors that influence consumers' purchasing decisions for locally manufactured generic pharmaceuticals in Ethiopian community pharmacies. Your information will only be used for the study's results and will be kept totally confidential. Please do not include any contact information on the survey. Once again, thank you for your cooperation.

Netsanet Asmare (Mob. +251911654644)

Part I: General Information

- ✓ Please do not write your name.
- ✓ Put “√” or “x” mark in the box to the point which mostly reflects your idea.
- ✓ All information will be used only for academic purpose and treated confidentially.
- ✓ Your honest and unbiased response will greatly contribute for the research to achieve its objective.

1. What is your age (in year?)

1. 18 – 30 ☐

4. 51 – 60 ☐

2. 31 – 40 ☐

5. >60 ☐

3. 41 – 50 ☐

2. Gender

1. Male ☐

2. Female ☐

3. Educational Level

1. No formal education ☐

4. Diploma ☐

2. Primary School completed ☐

5. Degree ☐

3. High School completed ☐

6. Master's Degree and above ☐

4. Your monthly income (in Birr)

1. < 1000 ☐

4. 3001- 4000 ☐

2. 1001- 2000 ☐

5. 4001- 5000 ☐

3. 2001- 3000 ☐

6. >5000 ☐

Part II

Dear Respondent;

First and foremost, I want to express my gratitude for your invaluable assistance. I'm working on a paper for my Master's degree in the Arts of Marketing Management. The focus of this study is on the factors that influence consumer purchasing decisions for locally manufactured generic pharmaceuticals in Ethiopian community pharmacies. Your information will only be used for the study's results and will be kept totally confidential. Please do not include any contact information on the survey. Once again, thank you for your cooperation.

1. **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*).

S.N	Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Product knowledge (PK)						
PK1	Knowing the difference between generic medicine and brand-name drugs encourages me to buy.	1	2	3	4	5
PN2	I come with adequate knowledge about the generic medicines that I buy.	1	2	3	4	5
PN3	When I decide to buy generic medicines, I find it easy to understand the drugs' side effects.	1	2	3	4	5
PN4	I ask questions about the drugs I bought so as to further knowledge of these drugs.	1	2	3	4	5
Price (P)						
P1	I am concerned about the price of the locally manufactured generic medicine.	1	2	3	4	5
P2	I will continue buying locally manufactured generic medicines which I know so far even though it increases its price.	1	2	3	4	5
P3	I will switch to another brand of medicines if the price of locally manufactured generic drugs is increased.	1	2	3	4	5
P4	I will compare the prices of locally manufactured medicine among brands while I want to purchase.	1	2	3	4	5
P5	I will buy the cheapest generic medicines.	1	2	3	4	5

Pharmacist's recommendation (PR)						
PR1	I have a trust on pharmacist's recommendation of locally manufactured generic medicines.	1	2	3	4	5
PR2	I have been buying an locally manufactured generic medicine according to pharmacist's recommendation.	1	2	3	4	5
PR3	I repeat buying a generic medicine which the pharmacist described to me and gave me good results.	1	2	3	4	5
PR4	I have an experience of buying locally manufactured generic medicines which the pharmacist recommended me.	1	2	3	4	5
Product quality (PQ)						
PQ1	I buy domestic drugs because I believe generic medicines and brand medicines are the same as the production standards.	1	2	3	4	5
PQ2	I will buy locally manufactured medicines because it has the same effect as the branded medicines.	1	2	3	4	5
PQ3	I will buy locally manufactured medicines because I believe they are just as safe as branded medicine.	1	2	3	4	5
PQ4	I buy locally manufactured medicines because I believe they contain the same ingredients (API) and the same concentration (amount) as branded medicines.	1	2	3	4	5
Ethnocentrism (EC)						
PA1	I have the experience of buying domestic medicines rather than buying from imported medicines.	1	2	3	4	5
PA2	Purchasing imported medicines is un- Ethiopian.	1	2	3	4	5
PA3	A real Ethiopian should buy locally manufactured medicines.	1	2	3	4	5
PA4	I dislike purchase imported medicines because it hurts the economy.	1	2	3	4	5
Purchase decision (PD)						
PD1	I decide to buy domestic medicines because I know the difference between imported medicines.	1	2	3	4	5
PD2	I decide to buy locally manufactured generic medicine by considering its price	1	2	3	4	5
PD3	I decide to buy locally manufactured generic medicine upon pharmacist's recommendation.	1	2	3	4	5
PD4	Product quality influences my purchase decision for locally manufactured medicines.	1	2	3	4	5
PD5	Whenever possible I decide to buy medicines manufactured in Ethiopia.	1	2	3	4	5

Thank you for your participation!!