

ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES

DETERMINANTS OF CUSTOMER BASED BRAND EQUITY AMONG PHARMACEUTICAL PRESCRIBERS IN THE CASE OF ADDIS ABABA HEALTH BUREAU HOSPITALS.

BY MARTHA ALEMAYEHU (ID No: SGS/0476/2007A)

> JULY 2017 ADDIS ABEBA, ETHIOPIA

DETERMINANTS OF CUSTOMER BASED BRAND EQUITY AMONG PHARMACEUTICAL PRESCRIBERS IN THE CASE OF ADDIS ABABA HEALTH BUREAU HOSPITALS.

BY

MARTHA ALEMAYEHU

(ID NO: SGS/0476/2007A)

A THESIS SUBMITTED TO ST.MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF BUSINESS ADMINISTRATION

JULY 2017

ADDIS ABEBA, ETHIOPIA

ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES

DETERMINANTS OF CUSTOMER BASED BRAND EQUITY AMONG PHARMACEUTICAL PRESCRIBERS IN THE CASE OF ADDIS ABABA HEALTH BUREAU HOSPITALS.

BY

MARTHA ALEMAYEHU

(ID NO SGS/0476/2007A)

APROVED BY BOARD OF EXAMINERS

Dean, Graduates Studies

Advisor

External Examiner

Internal Examiner

iii | Page

Signature

Signature

Signature

Signature

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Dr.TesfayeWolde. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Name

Signature

St. Mary's university, Addis Ababa July, 2017

ENDORSEMENT

This thesis has been submitted to St. Mary's university, School of Graduate Studies for examination with my approval as a university advisor.

Advisor

Signature

St. Mary's university, Addis Ababa July, 2017

Table 0f Contents	
Contents	Page
ACKNOWLEDGMENTS	viii
List of Acronyms	ix
List of Tables	X
List of Figures	xi
ABSTRACT	xiii
INTRODUCTION	1
CHAPTER ONE	
1.1. Background of the study	1
1.2. Statement of the problem	
1.3. Research Questions	
1.4. Research Objectives	4
1.4.1. General Objective	4
1.4.2. Specific Objectives	5
1.5. Significance of the Study	5
1.6. Scope of the Study	5
1.8. Organization of the Research Report	5
1.9. Operational Definition of Terms	6
2.2. Empirical Review	
2.3. Conceptual Framework	
RESEARCH METHODOLOGY	
CHAPTER THREE	
3.1. Research approach	
3.2. Study Variables	
3.3. Study Setting	
3.5. Sampling Technique	
3.6. Data collection instrument	
3.9. Ethical consideration	
RESULT AND DISCUSSION	21
CHAPTER FOUR	21
4.1.1. Demographic Profile of Respondents	21
4.1.2 Brand Popularity	25
4.1.2 Determinants of Brand Equity	
CONCLUSION AND RECOMMENDATION	

CHAPTER FVE	
References	
Annexure	1
Questionnaire	1

ACKNOWLEDGMENTS

Primarily, I want to specially thank the Almighty GOD for giving me the inspiration and patience to start this research work. Secondly, I am grateful my thesis advisor Dr.TesfayeWolde for the incredible guidance and steering me in the right direction.I would also like to thank the Hospitals involved in this study for their kind cooperation, the key respondents for their willingness and passionately participating in the study. Finally, I am gratefully indebted to the support I get from my family and friends throughout this study.

List of Acronyms

CBBE.....Customer Based Brand Equity

GP..... General Practitioner

CBR..... Consumer-brand relationships

List of Tables

Table	Pages
Table 4.1 Demographic Profile of respondents	21
Table 4.2: Reliability Test of Variables	28
Table 4.3: Brand Awareness Analysis	28
Table 4.4: Brand Association analysis	29
Table 4.5: Perceived Quality analysis	30
Table 4.6: Brand Loyalty Analysis	30
Table 4.7: Summary of the overall Brand Equity determinants	

List of Figures

Figure	Page
Figure 2.1: Conceptual Framework of the study	15

ABSTRACT

Though the pharmaceutical market in Ethiopia is growing substantially and the mode the market operate and compete has changed rapidly over the past few years, to date there is no clear and efficient model available to assist pharmaceutical marketers in identifying and quantifying brand value in developing countries like Ethiopia. The purpose of this study was to determine the determinant CBBE among prescribers and assesses the impact of prescribers' socio demographic characteristics on CBBE elements in pharmaceutical market of Addis Ababa. The study was conducted taking government hospitals as a case and one specific product Diclofenac which is available in 7 brands in Ethiopia market the study follow the conceptual framework of brand equity model developed by Aaker. Brand equity dimensions, which are Brand Awareness, Brand Association, Brand Perceived Quality and Brand Loyalty along with the question of how these dimensions are influencing brand building in prescribers' mind was assessed in government hospitals of Addis Ababa. As to the methodology, this study was a descriptive study using self-administered questionnaires. Relevant sampling Techniques was used and study conducted on 124 prescribers as a sample to represent the populatio. Questionnaire adapted from previous researches related with the study was utilized to collect the data and SPSS utilized for data analysis. This study has revealed that Brand equity of Pharmaceutical products is directly made up of two dimensions, namely brand awareness and perceived quality. These two dimensions have shown a strong impact on brand equity with a mean of 4.02 and 4.03 respectively. Other dimensions i.e. Brand association and Brand loyalty have a very small impact on brand equity in Addis Ababa Pharmaceutical market with a mean of 2.87 and 3.12.

Key Recommendation: Marketers in the Pharmaceutical industry should concentrate their efforts primarily on developing the Perceived Quality and awareness of their brand in the customer's mind.

Key Words: Diclofenac, Brand Equity, Brand Awareness, Brand Association, Brand Perceived Quality, Brand, Lo

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

The landscape in which companies in the pharmaceutical industry operate and compete has changed rapidly over the past few years. The estimated value of the global pharmaceutical market is expected to reach \$1.6 trillion by 2020 of which Africa shares the 10% with expected annual growth rate of 10.6%. The Ethiopia pharmaceutical market is also not different, with annual market of US\$ 500 million in 2014 and cumulative annual growth rate of 25% over the last 10 years (*MOST*, 2017).

According to *Moss (2004)*, the past successes of the pharmaceutical industry are not guaranteed in the futuredue to rising R&D costs and associated productivity issues. Also that article has revealed that, the move to brand logic could represent a substantial new competitive advantage in the industry.

Moss in the same study has proposed that pharmaceutical companies need to adopt a three-step process when developing brands: first, identifying the brand identity via in-depth; secondly deciding how to communicate this in a coherent way to target customers and thirdly to regularly monitor the brand image and manage it (*Moss, 2004*)

The pharmaceutical industry promotes its products heavily. For many research-based firms the promotion budget can be twice to four times as large as the budget for research and development, with sales promotion running 20 to 30 percent of sales. The most heavily used form of promotion consists of visits to physicians, pharmacists, and other health-care professionals by sales representatives of the producers of branded pharmaceuticals. (*Hurwitz, 2008*)

Unlike other typical consumer markets marketing of pharmaceutical brands cannot follow the established rules of consumer brands (*Dheeraj*, 2014).

Other markets follow direct 'seller to user sales' however, pharmaceutical selling is a multiple tier process. Here in addition to the intention of the direct consumer the medical practitioner decides on the behalf of consumer, which product needs to be bought and in what quantity. Hence studying prescribing behavior of physicians is very important in dealing with pharmaceutical marketing and brands (*Dheeraj, 2014*).

Different studies have shown the brand prescription in different Health facilities in Ethiopia. Among these one study has shown that: the percentage of drug prescribed by brand name was 25% in Jimma Hospital (*Shiferraw*, 1997). Also, a national baseline study on drug use indicators in Ethiopia in September 2002 showed the percentage of drugs prescribed by brand name to be 13% (*Dikaso*, 1998).

With regard to individual drugs prescription a study in Hawasa referral Hospital found that Diclofenac is the most frequently prescribed ant inflammatory drug as injection accounting 9.4% (*Desalegn, 2013*).

*Griffiths*on his published study on journal of medical marketing in 2007 has uncovered the existence of brand equity as a concept among doctors. However the extent and the specific brand equity dimensions were not presented in that particular study.

With this context, this study did assess the determinants of customer based brand equity among the medical practitioners who order (prescribe) the Drug to be purchased by the direct consumer taking one specific product Diclofenac which is available in 7 brands in Ethiopia.

1.2. Statement of the problem

Branding and the concept of brand equity however have become increasingly important in industrial markets where it has been shown that what a brand means to a buyer can be a determining factor in deciding between industrial purchase alternatives (*Aaker, 1991*). It is critical for suppliers to initiate and sustain relationships with their customers (*Ambler, 1997*).

The study of consumer's purchasing behavior and the attempt to model the decision-making process of consumers is a long standing interest for marketing and decision theory scientists. Consumer–brand relationships (CBR) are important for the profitability of companies and enhancing the understanding of CBR is of great interest to researchers (*Ambler, 1997*).

A study conducted in Turkmenistan has examined the relationship between brand and consumer preference with Structural Equation Model and has shown that brand creates consumer awareness and desirability that can facilitate consumer decision making and activate brand purchase. The authors of the study did also observe that customer brand experiences build consumer's preferences toward certain brands directly or indirectly (*Abdurrahman & Mehmet, 2015*).

On the other hand primary research conducted among Czech psychiatrists has shown that physicians are not influenced by functional product benefits only. This study also suggested that pharmaceutical brand could convey both functional and emotional/self-expressive sets of benefits, i.e. that pharmaceutical brand is more than product and its functional characteristics. Nevertheless, non-functional pharmaceutical brand is likely to develop differently than that of consumer goods products which seems to be built predominantly on long-term positive experience (*Bednarik*, 2005).

Though many studies have been conducted on the purchase intention of consumers in the world, most of these researches were mainly focused on developed countries. Few researches were done on developing countries. On the other hand, to date there is no clear and efficient model available to assist pharmaceutical marketers in identifying and quantifying brand value in developing countries.

In the case of Ethiopian market the investigator of this study didn't come up with any study CBBE factors in Pharmaceutical market. However the country is dependent on imported and branded pharmaceuticals for more than 80% of its supply. More than 400 importers have been engaged in importing and distributing different pharmaceutical brands to the public (*MOST*, 2017). From this we can observe that the market is facing a stiff competition.

On the other hand, there is no study based evidence on the determinants of customer based brand equity on pharmaceutical market to ensure sustainable market share in the Ethiopian pharmaceutical market. The observed gap has initiated this study to bring an insight on prescribers' perception and determinants of customer based brand equity in order to build a successful brand in the market. Besides, the current composition of mixed brands in the market has not been clear which dimension of the brand equity strongly influences the customer's purchasing behavior to prefer a certain brand.

1.3. Research Questions

Based on the above mentioned general introduction on the subject matter and description of statement of the problem, the research questions of the study were identified.

- What key factors determine CBBE in the pharmaceutical physicians' prescribing behaviors' in view of brand equity dimensions in Addis Ababa?
- Which brand equity dimension is most influential in pharmaceutical market on prescribers of Addis Ababa?
- Do factors determining CBBE of pharmaceutical markets in Addis Ababa vary based on demographic characteristics of respondents?

1.4. Research Objectives

1.4.1. General Objective

To determine the determinant of Customer based brand equity among pharmaceutical prescribers in the case of Addis Ababa health bureau hospitals.

1.4.2. Specific Objectives

- 1.4.2.1 To assess factors that determines pharmaceutical prescribers' prescribing behaviors' in view of brand equity dimensions in Addis Ababa health bureau hospitals.
- 1.4.2.2 To determine the most influential brand equity dimension in pharmaceutical market of Addis Ababa health bureau hospitals.
- 1.4.2.3 To assess the relationship between the various socio demographic variables with key determining factors of CBBE in pharmaceutical market in Addis Ababa.

1.5. Significance of the Study

This research will be an important in put to pharmaceutical manufacturers and marketers to design a marketing strategy based on CBBE based of Aaker's Brand Equity Dimensions Model. Moreover it can serve as baseline information for pharmaceutical regulation policy makers and other researchers who want to explore related subject.

1.6. Scope of the Study

The scope of the study is encircled with the subject matter of customers' perception in view of CBBE upon the Brand Equity Dimension of Aaker's Brand Equity Model. The geographic concentration was Addis Ababa pharmaceutical market, particularly selected public hospitals. The duration in which data was collected through employing developed questionnaires was in May 2017. Research design was selected to be descriptive and data gathered was quantitative and analyzed use of Statistical Package for Social Sciences (SPSS) application.

1.7. Limitations of the study

The study has limitation in that a determinant of brand equity, mainly focusing on Aaker's four determinants might not be enough. The research would have been more conclusive if it had considered more variables which are specific to pharmaceutical market. Furthermore, lack of similar studies especially in Ethiopia made difficult for comparing results.

1.8. Organization of the Research Report

This research is organized into five chapters comprising Introduction entailing background and theoretical introduction to the study, Review of Related Literature, Research Design &Methodology, Results and Discussion, and finally Summary, Conclusions and Recommendations.

The first chapter provides a general introduction of the study including background of the study, statement of the problem, the research questions, and objectives of the study, significance of the study, scope of the study and Limitation of the study.

Chapter two covers the literature review part of the study, which are relevant to the study. It includes concepts and theoretical framework as well as discussion on the customer-based brand equity model.

Chapter three elaborates the type and design of the research. It also includes research method, sampling technique, data collection method and method of data analysis that are used in the study.

Chapter four discusses in detail the findings of the study on the result of the data collected and analysis made using the statistical tools stated in the research methodology part.

Finally chapter five summarizes the findings, conclusions, recommendations and limitations of the study.

1.9. Operational Definition of Terms

Brand: Any name, term, design, style, words, symbols or any other feature that distinguishes the goods and services of one seller from another.

Brand Identity: It is the representation of the company; 's reputation through the conveyance of attributes, values, purpose, strength and passion.

Brand Image: It is a set of beliefs held about a specific brand.

Brand Preference: It is a measure of brand loyalty in which a consumer will choose a particular brand in presence of competing brands, but will accept substitutes if that brand is not available.

Brand Equity: Set of brand assets and liabilities linked to a brand name and symbol, which add to or subtract from the value provided by a product or service.

Brand Equity Dimensions: A framework through which brand equity is built in with the components of brand awareness, brand association; brand perceived quality, brand loyalty and other proprietary assets.

Brand Awareness: It is the strength of the brand node or trace in memory, as reflected by consumers' ability to identify the brand under different conditions.

Brand Association: It is about brand-related thoughts, feelings, perceptions, images, experiences, beliefs, attitudes and is anything linked in memory to a brand

Brand Perceived Quality: It is the customer; is judgment about a product; is overall excellence or superiority that is different from objective quality

Brand Loyalty: It is the attachment that a customer has to a brand.

Customer Based Brand Equity: It is the differential effect that brand knowledge has on consumer response to the marketing of that brand.

CHAPTER TWO REVIEW OF RELATED LITERATURE

In this section the theoretical view of the subject of the study is presented. Based on the objectives of the study, various topics are reviewed including: the nature of pharmaceutical market, Customers purchase behavior; brands, brand equity and CBBE models are discussed. Furthermore, the conceptual framework of this study is presented at the end of the chapter.

2.1. General Concepts and Theoretical Review/conceptual review

2.1.1 The Nature of Pharmaceutical Market

Pharmaceutical marketing is a complex business and involves multiple decision-makers who define the nature of the transaction (prescription) for which direct customer of pharma industry (Physician) is responsible. Though the end-user (patient) consumes a product and pays the cost, the obvious situation in the market shows medical representatives of corporate and physicians exert substantial impact in the hierarchy of decision makers (*Shohel, 2013*).

Pharmaceutical industry is growing due to the increasing trend in self-medication, in line with greater awareness of health issues, despite the decreasing incidence of minor ailments such as cold and flu. However with increasing pressure for new product development, the rate of technological change, and change in the competitive environment put pharmaceuticals under pressure to maintain loyal customers (*Bednarik*, 2005).

Branded drugs also compete through promotions that take a variety of forms. Because physicians decide which drug to prescribe, sales representatives of branded drug manufacturers provide information to physicians about new drugs and treatment options. Such information may be valuable and may enhance the quality of medical care received by patients. Branded drug manufacturers also provide free samples of their drugs to physicians, which are then passed on to patients. Free samples effectively act as a price discount for both insurers and patients. Finally, branded drug manufacturers also promote their drugs directly to patients (*Guha R.2008*).

2.1.2. Customer Purchasing Behavior

Nowadays companies are more concerned on individual consumer behavior. It helps them to yield information about how the consumers think, feel and choose their products. Every individual is consumer. Consumer behavior is the study of the processes involved when individual or groups select, purchase, use, or dispose of the product, service, ideas or experiences to satisfy needs and desires (*Michael RS, 1998*).

The way that consumers behave and how they purchase goods and services is influenced by different factors. Not all individuals or groups follow the same manners, and organizations need to consider cultural, social, personal and even psychological factors when they study consumer behavior (*Kotler et al., 2005*).

A purchase decision of a customer is the result of his culture, his subculture, his social class, his membership groups, his family, his personality, and his psychological factors and is influenced by cultural trends as well as his social and societal environment. By identifying and understanding the factors that influence their customers, brands have the opportunity to develop a strategy marketing message and advertising campaigns more efficient and more in line with the needs and ways of thinking of their target consumers, a real asset to better meet the needs of its customers and increase sales (*Rani,2014*).

In some cases the buying behavior can turn into a habit where the consumer does not need to put effort into making a decision. Such a buying habit can stem from a brand loyalty where the consumer feels strongly and positively about a certain brand, and thus, makes consciously a choice to buy a product of that particular brand. A personal connection to the brand can be developed over time and reinforces the habitual buying behavior and makes the consumer less prone to switch to any other brand. For other consumers the habitual buying behavior does often come from inertia when the consumer is reluctant to put effort into the decision making process. As a result the consumer develops behavior of buying a product out of habit. Because there is not a strong personal connection to the product or the brand itself, the consumer is prone to switch to other brand (*Solomon et al. 1999*).

2.1.3. Brand, Brand elements and Branding

The American Marketing Association defines a brand as "a name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors."

The earliest signs of branding were the medieval guilds' efforts to require crafts people to put trademarks on their products to protect themselves and consumers against inferior quality. In the fine arts branding began with artists signing their works (*Kotler*, 2000).

Branding gives greater meaning to a company's name and its products. Companies build brands using memorable names, symbols such as logos and other images and phrases catchy slogans, for instance, sometimes become strongly connected to a brand so that people can easily recall the brand from hearing the slogan. Consumers distinguish one product or service from another by its brand(*Hammond*,2008).

Corporate branding is a particular type of branding that seeks to link the name of the corporation with the overall advertising efforts in the mind of the consumer. It is a key element in gaining recognition for a product or family of products and establishing a long-term reputation in the marketplace (*Hartman. 2015*).

2.1.4. Brand Equity and CBBE Models

Brand equity which is at least agreed as a term to be functionally synonym with brand value, comes from the exerted effort on marketing strategy and implementation. Also, it can be regarded as one important performance indicator of marketing. Moreover, brand equity being a function of brand-consumer relationship can bring higher preferences and purchase intentions among customer (*Ambler, 1997*).

This importance of brand equity has led to emergence of different models of branding and brand equity. In spite of existing differences in detail these models were built in the foundations of acknowledging the role of customers' perception in determining brand strength. (*Leone etal*, 2016)

Aaker (1996) outlined *CBBE* is mainly determined by five elements of brand assets namely: Brand Awareness, Perceived Quality, Brand Association, Brand Loyalty and other proprietary brand assets.

Brand awareness that comprises recognition and ability to recall comes first in Aaker's model. The ability of consumers to endorse prior experience with the brand and to recall the brand makes this first dimension in the model (*Aaker 1996*).

Emotional attachments with the brand included in the other dimension, brand association which composes different brand-related thoughts, feelings, perceptions, images, experiences, beliefs, attitudes (*Kotler and Keller, 2006*) and is anything linked in memory to a brand. *Farquhar* (1990) has identified these different types of association that contribute to the brand equity.

Awareness and association are also complemented with perceived quality in Aaker's model .Here, the importance of the customers' judgment on how that product performs and excels other brands is outlined. Perceived quality is the customer's judgment about a product's overall excellence or superiority that is different from objective quality (*Ambler, 1997*).

Aaker (1991) defines the fourth dimension of his model of CBBE; brand loyalty as ignition of terms. *Grembler and Brown (1996)* describe different levels of loyalty. Brand loyalty is directly related to brand price. Sometimes the loyalty is circumstantial: Repeat buying comes from a lack of reasonable alternatives. Circumstantial loyalty includes what is called proprietary assets that give a firm at least a temporary monopoly position (*Pradhan, 2014*).

In addition to Aaker, Kevin Keller has also delivered major input to brand theories. In 1993, Keller has outlined that brand equity describes how the consumers' response is impacted due to knowledge of the brand and emotional attachments with the brand including persistent brand association. Also, in his article of 2003, the concept of CBBE is discussed in depth along with the concept of brand hierarchy. *(Keller, 1993, 2003)*.

According to Keller's CBBE model, strong brand is built with a step by step approach which follows a 'ladder' scheme comprising 4 steps that has to be achieved one by one and turn by turn i.e. from brand identity to brand meaning then to brand responses and finally brand relationships.

At the same time he has also elucidates salience, performance, imagery, judgment, feelings and resonance to be the 6 brand building blocks which build each of these steps (*Keller*, 2003).

Once a customer sees/purchases a certain brand, identifying it and creating association in his mind has to be accomplished as a first step in building successful brand. According to Keller, brand identity is the term coined for this particular step. Memorizing and recognizing the brand easily along with the range of transaction in which the brand comes to mind make a strong brand awareness (*Keller*, 2003).

Though brand identity is an important and first step, successful brand cannot solely built with brand identity. Strong, favorable, and unique brand associations are essential as sources of brand equity to drive customer behavior (*Leone etal*, 2016). The multidimensional link and association with the brand is the second step in Keller's model (*Keller*, 2003).

The third step in the Keller model which is brand response signifies opinions and evaluations of the brand based on a combination of associations identified in brand meaning. These judgments include quality, credibility, consideration and superiority. Brand feelings are customers' emotional responses and reactions to the brand (*Keller*, 2003).

Brand relationships constitute the final step in the pyramid where brand response is converted to create an intense, active loyalty relationship between customers and the brand. The pinnacle of the pyramid is resonance, which refers to the nature of the relationship between the customer and the brand. It is described as having four elements: behavioral loyalty, attitudinal attachment, sense of community and active engagement (*Keller, 2001*).

2.2. Empirical Review

Tong and Hawley (2009), researched about measuring Customer Based Brand Equity in the Sportswear market in China based on Aaker's conceptual framework of brand equity, they employed structural equation modeling to investigate the causal relationships among the four dimensions of brand equity and found that, brand association and brand loyalty are influential dimensions of brand equity and weak support was found for the perceived quality and brand awareness dimensions.

A study conducted in Eastern Australian council waste tracking company Brand awareness was found to be higher overall for one brand with brand recognition much stronger than brand recall. A total of 54% and 96% of respondents recognized the product brand and manufacturer brand respectively for. In this study by *Kuhn etal (2013)* brand associations were also evaluated for the manufacturers and their brands and found that. Overall, respondents demonstrated strong association with one brand.

A study in Kuwait by*Bahrinizadeh (2014)*that assess brand equity and country of origin in pharmaceutical industry has showed that brand equity components brand awareness, perceived quality brand and brand image do have considerable influences and affected by country of origin. On the other hand a study conducted on impact of brand image on consumer buying behavior in clothing sector has shown that males are more brand conscious rather than females. Hence Consumer Perception has more influence on Consumer Buying Behavior instead of Brand Image and Consumer Awareness

Another study has examined the Customer Based Brand Equity in the Chocolate industry of Iran and by using Aaker's CBBE model; the researcher found out that the brand equity of chocolate products is directly made up of two dimensions, namely brand loyalty and brand image. These two dimensions have a medium direct impact on brand equity. Other dimensions have a very small and indirect impact on brand equity that in chocolate industry of Iran(*Hossien, 2012*). A study in Finland has assessed the importance of various factors on pharmacy customer purchasing behaviors. The study has found that 22 % of customers are influenced by brand awareness and 10 % by the pharmaceutical company's country of origin (*Bostrom, 2011*).

A study conducted in Punjab, Pakistan has revealed that brand related factors have significant the brand related factors have positive relationship with purchase intention of customers. In addition to this different relationship has been found between different demographics attributes and purchase intention of customers (*Khan etal*, 2012).

A comparative case study on effect of brand image on consumer purchase behavior in international footwear market it was found that that Lithuanians tend to purchase footwear more on functional purposes whereas Danes tend to purchase footwear pushed by social acceptance or emotional needs. What is more, Lithuanian do not have any positive associations about local

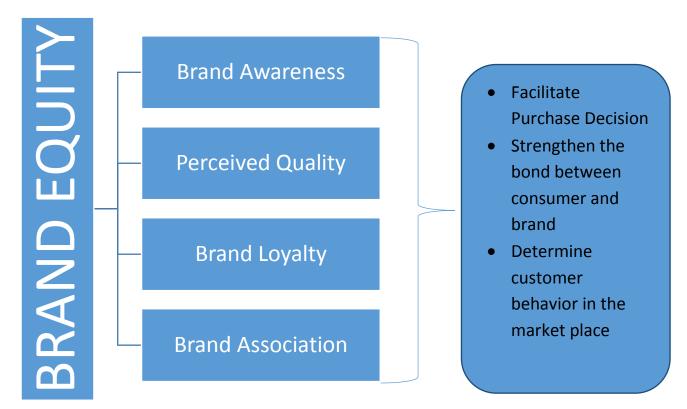
footwear brands. In comparison to this, Danish respondents were able to name the main Danish brands (*Petrauskaite*,2014).

Dubois and Laurent (1993) investigated the relationship of socio demographic characteristics and luxury brand awareness and purchase in five European countries. Income, education and occupation were most strongly and consistently associated with luxury brand purchase across the five countries. Age, gender, marital status, and location of residence (urban, rural etc.) showed no or only a weak relationship.

The relationship between brand performance and consumer based brand equity has been analyzed by *Oliveira-Castroa et al. (2008)*. They conceptualized the brand equity as related to the level brand's offering of the social benefit. The result of the study showed a variation between the brand performance and consumer based brand equity across the product categories. Furthermore this variation indicates that products differ with respect to their level of brand ability, suggesting ways to measure it.

2.3. Conceptual Framework

This study is intended to have a detailed analysis about the Customer Based Brand Equity in the Pharmaceutical market of Addis Ababa. Based on the above related literature review and concepts the conceptual frame work for this study is developed. This frame work is developed by adopting the *Aaker, Brand Equity Dimensions Model (1991)*.





Brand awareness plays an important role in consumer decision making for three major reasons. First, it is important that consumers think of the brand when they think about the product category. Raising brand awareness increases the likelihood that the brand will be a member of the consideration set high level of brand familiarity is desirable and beneficial because it facilitates purchase decision process and increase consumer's confidence and trust. Brand familiarity reflects the extent that consumer's direct or indirect experience with a brand(*Keller*, *1993*).

Brand association also essentially impact purchasing behavior of customers. The process of relationship has positive emotions and cognitive benefits that can generate bond between the consumer and the brand, so we come to know that if brand fulfill the customer's need and

provides benefits to customer then there is a strong bond between consumer and brand (Fournier, 1998). If consumers have actually participated or imagination in communities of brands then brand relationships are formed (*Fournier*, 1998).

Brand loyalty is linked to customer behavior in the marketplace that can be indicated by number of repeated purchases (*Keller, 1998*) or commitment to re-buy the brand as a primary choice. Purchase decision arises, that is the consumers' first choice.

Consumers use the quality attributes to 'infer' quality of an unfamiliar product. It is therefore important to understand the relevant quality attributes are with regard to brand equity.

Since other proprietary assets measure Customer Based Brand Equity from company perspective not from the customers' (*Dibbetal, 2006*). From this perspective it is found irrelevant and excluded from this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Research approach

This study was a descriptive study. The quantitative data analyzed to test the effect of the brand equity dimensions on consumer based brand equity. The research approach applied in this study was Quantitative approach

One specific Pharmaceutical product Diclofenac which is available in Ethiopia in 7 different brands was selected for the study to infer about all pharmaceuticals also only the prescribing physicians were taken as Pharmaceutical customers as in government hospitals pharmaceuticals are sold only by prescription and patients have no choice to select which drug to buy except paying for what his/her Doctor has ordered to buy

3.2. Study Variables

Based on the developed research framework, the effect of the four variables (Brand awareness, Brand Association, Brand Loyalty and Perceived Quality) on the overall brand equity (Dependent Variable) of the prescriber were tested. In addition socio demographic variables particularly Educational Qualification were taken as independent variables and their effect on the other brand equity dimensions was also analyzed.

3.3. Study Setting

This study is conducted in Addis Ababa, Ethiopia. It has 33 hospitals, of which 6 are managed under the health bureau of the city administration, 8 are managed by the federal ministry of health and the rest are either privately owned or owned by non-governmental and other governmental organizations (*FMOH*,2008).

3.4. Study Population

The source did constitute all government hospitals in Addis Ababa, and all the physicians working in the outpatient departments of these hospitals. For this study only the prescribing physicians were taken as Pharmaceutical customers as in government hospitals pharmaceuticals are sold only by prescription and patients have no choice to select which drug to buy except paying for what his Doctor has ordered to buy

The study population consisted of all government hospitals administered by Addis Ababa Health Bureau and all physicians serving in all government hospitals administered by Addis Ababa Health Bureau who were willing to participate in the study.

3.5. Sampling Technique

To make the samples representative of the population, the sample frame from which samples drawn is developed. Thus, the sample frame designed for selecting hospitals is made to be all government hospitals in Addis Ababa listed in Table 3.1. Cluster sampling technique used to draw the sample hospital by clustering based on the body they are administrated and controlled and the 6 hospitals in cluster 1 those controlled by Addis Ababa Health Bureau are selected randomly.

S/N	Name of the Hospital	Controlling Body	Category	
1.	RasDestaDamtew Hospital	Addis Ababa Health Bureau	Cluster 1	
2.	Zewditu Hospital	Addis Ababa Health Bureau		
3.	Yekatit 12 Hospital	Addis Ababa Health Bureau		
4.	Minilik II Hospital	Addis Ababa Health Bureau		
5.	Ghandi Memorial Hospital	Addis Ababa Health Bureau		
6.	TiruneshBejing Hospital	Addis Ababa Health Bureau		
7.	Police Hospital	Federal Government	Cluster 2	
8.	Balcha Hospital	Federal Government		
9.	AbunePetros Hospital	Federal Government		
10.	Amanuel Hospital	Federal Government		
11.	Alert Hospital	Federal Government		
12.	Armed Forces Hospital	Federal Government		
13.	Saint Paul Hospital	Federal Government]	
14.	Black Lion Hospital	Federal Government]	

 Table 3.5: Sampling Frame for selecting the Hospitals

The sample frame for the prescribers who were selected to be all physicians serving in all government hospitals administered by Addis Ababa Health Bureau.

The number of customers (Prescribers) to be involved in this survey determined using the single proportion formula (*Lwanga and Lemeshow*, 1991).

$$N = \frac{(Z)^2 X P(1-P)}{d^2}$$
Eqn 1

Where: N= Sample size, P= level of positive impact of brand equity dimensions, Z= Standard value, d= absolute sampling error that can be tolerated

$$N = (1.96)^2 X 0.5 (1-0.5) = 384$$
$$(0.05)^2$$

The sample size is calculated assuming the expected level of positive impact on brand equity dimensions on the customer to be 50%, sampling error to be 5 percent and with 95% confidence interval. Hence the sample size calculated was 384. With the assumption of 10% non-response rate, the number of clients to be involved in the survey supposed to be 422 however reduction formula on Eqn 2 has been used from the ministry of health it is found that a total of 191 physicians are working in the hospitals of administered by Addis Ababa health bureau. Information source is from <u>www.moh.gov.et</u>/aahb assessed on April 8,2017

*n*final (for Physicians)=n/(1+n/N) Eqn 2 422/(1+422/191)=132

Hence data was collected from 132 physicians proportionally allocated to each participated hospitals of which 8 were incomplete and the rest data collected from 124 was subjected to analysis .Then, the samples were using a non-probability (convenience) sampling technique to which the prepared questionnaires are distributed to be filled in a self-administered manner.

3.6. Data collection instrument

Questionnaire adapted from previous researches related with the study was utilized to collect the data. The first part of the questionnaire consisted of demographic information of respondents; the second part, on questions related to variables that measure the factors that will be considered to make up the respondents Brand Equity. Finally, the questionnaire composed of four variables that reflect the Customer based Brand Equity in the pharmaceutical market (See Annexure).

3.7. Data quality assurance

To ensure content validity of the instrument, the draft questionnaire pre-tested on 7 final year medical students in Black Lion Hospital for clarity after approval of advisor and possible amendments were made. During the data collection, supervision was done by principal investigator. Data cleaning up and cross-checking done before data processing and analysis.

3.8. Data processing, analysis and interpretation

Once the data is collected and checked for completeness and accuracy, it was sorted, categorized and summarized. After coding the data entered, and analyzed by descriptive statistical analysis using SPSS version 16.In addition, data summarized were presented using tabular and graphic presentations for the interpretation of findings.

3.9. Ethical consideration

The participants were asked for consent before filling the questionnaires and were not forced to participate if they are not willing.

CHAPTER FOUR

RESULT AND DISCUSSION

4.1. Results/Finding of the study

All collected data is analyzed as well summarized in order to achieve the aim or objective of the research. As mentioned earlier this study was held to analyze dimensions of customer Based Brand Equity on pharmaceutical market taking a specific product: Diclofenac. Hence, the demographic profile of the respondents, their choice of diclofenac brands, frequency of brand prescription and other associated sub topics are analyzed in detail. Finally, summarized findings followed by conclusions of the study are presented.

The total number of respondents selected was 132; Out of the total 132 questionnaires that were distributed 124 of them were filled and returned. Accordingly, the data was analyzed and interpreted here below using the possible options of descriptive statistics.

4.1.1. Demographic Profile of Respondents

To observe what demographic trend the sample population had, the questionnaire started off with demographic characteristics of respondents. This part of the questionnaire requested limited amount of information related to personal and demographic status of the respondents. Accordingly, the following variables about the respondents were summarized and described in the subsequent tables. These variables included; Gender, Age, Qualification and years of work experience.

		Frequency	Percent
Gender	Male	78	62.9
	Female	46	37.1
	Total	124	100
Age	24-29	54	43.5
	29-34	39	31.5
	34-40	17	13.7
	Above 40	14	11.3
	Total	124	100
Educational	GP	87	70.2
Ground(specialization)	Surgeon	6	4.8
	Internist	6	4.8
	Gynecologist	7	5.6
	Dentist	8	6.4
	Total	124	100
Years of work	1-3 years	53	42.7
Experience	3-5 years	42	33.8
	5-10 years	20	16.1
	Above 10 years	9	7.3
	Total	124	100

 Table 4.1: Socio Demographic profile of respondents

Source: Own Survey Result, 2017

Looking into age and gender distribution of respondents, majority of respondents was male(62.9%). On the other hand respondents having an age range of 24-29 years make the majority (43.5%) those in the age group of above 40years were 11.3 %. With regard to educational qualification the number of respondents who are GP makes majority making 70.2%. While respondents were having specialized make 29.8% of which: 4.8%, 4.8%, 5.6% and 6.4% for surgeons, Internist, Gynecologist and Dentistry specializations respectively.

When it comes to the findings, as to building brand equity to pharmaceuticals in the market, the first factor is checking how regular and how many times Diclofenac prescriptions were written per day by the prescribers. On this ground, the frequency of Diclofenac prescriptions written by the respondents is summarized in view of their demographic profile education qualification and years of experience. First, the average number of daily Diclofenac prescriptions by the respondents is depicted in the chart 4.1.1.

As one can see from Chart 4.1.1: those respondents who prescribe Diclofenac 1-3 times per day on average make 50.8% and 33.1% of respondents prescribe Diclofenac prescriptions 3-5 times a day whereas 12.9% and 3.2% of respondents prescribe Diclofenac 5-10 and above 10 times per a day on average respectively.

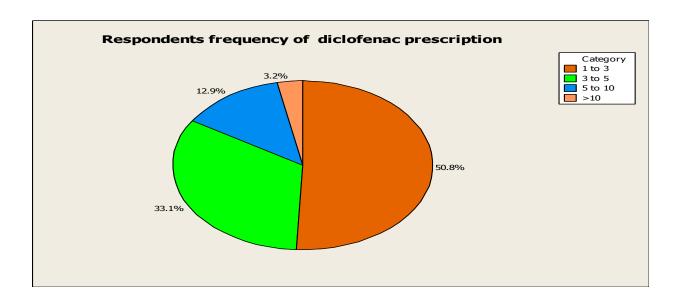


Chart 4.1.1: Respondents frequency of Diclofenac prescription

Source: Own Survey Result, 2017

On the other hand, as one can see from Chart 4.1.2 with regard to prescribing Diclofenac in brand name only 13.7% respond never and 16.9% always while those respondents who prescribe brand sometimes account 50% showing brand prescription is not all or none mechanism which further emphasize studying the trigger for brand prescribing is important.

Respondents rate of Diclofenac Brand prescription

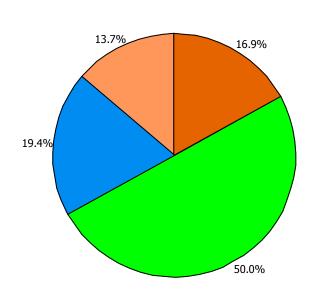




Chart 4.1.2: Respondents rate of Diclofenac brand prescription Source: Own Survey Result, 2017

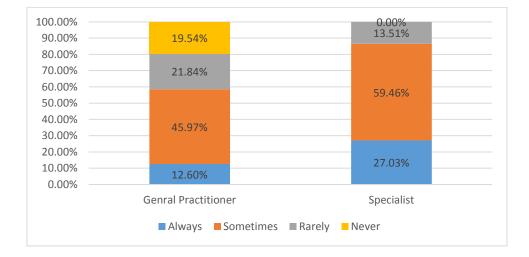


Chart 4.1.3: Respondents rating of prescribing Diclofenac brands by educational qualification Source: Own Survey Result, 2017

Looking in to respondents rating of Diclofenac brands, Chart 4.1.3 and Chart 4.1.4 show that prescribing in brand follows the same pattern. When evaluated from educational qualification and total work experience: both among General Practitioners and specialists' as well as and among respondents of different experience, one can see from the result that those respondents who rated their brand prescription "sometimes" make majority accounting 45.97%, 59.46%,56.66%,42.86%, 45% and 55.56% in GPs ,Specialists, respondents with work experience of 1-3 years,3-5 years,5-10 years and above 10 years respectively.



Chart 4.1.4: Respondents rating of prescribing Diclofenac brands by years of Experience Source: Own Survey Result, 2017

4.1.2 Brand Popularity

Looking into brand popularity; as one can see from chart 4.1.5 one of the Diclofenac brand, DICLODENK took the highest consumers preference with 38.3% followed by VOLTAREN and DIVIDO by 21.5% and 11.2% respectively. Hence the top three brands that are being consumed are DICLODENK, VOLTAREN AND DIVIDO.

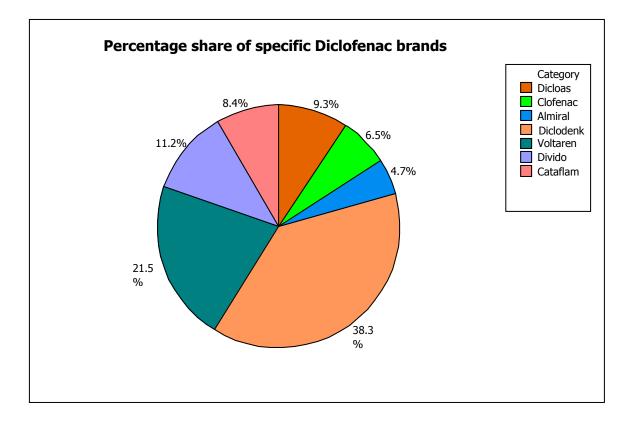


Chart 4.1.5: Percentage share of specific Diclofenac brands

Source: Own Survey Result, 2017

On the other hand comparing brand popularity by educational qualification DICLODENK was the most popular brand among both GPs and Specialists. While the least popular one is ALMIRAL for Specialists and CLOFENAC for GPs. When we see the top three popular brands for GPs it has been found that DICLODENK, VOLTAREN and DICLOAS were ranked 1st, 2nd and 3rd respectively whereas DICLODENK, VOLTAREN and DIVIDO were the top three popular brands for Specialist respondents (Chart 4.1.6)

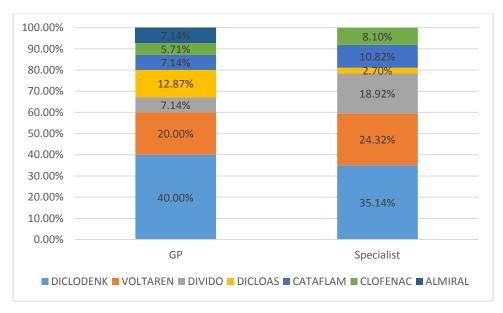


Chart 4.1.6: Brand popularity by educational Qualification

Source: Own Survey Result, 2017

Considering, the association of work experience and brand popularity. Chart 4.1.7 depicts DICLODENK has been the most popular for the respondents with experience of 1-3 years and 3-5 years category while VOLTAREN and DIVIDO were most popular in respondents with work experience of 5 -10 years and above 10 years respectively.

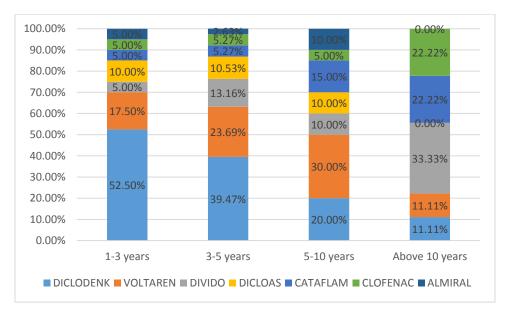


Chart 4.1.7: Brand popularity by Work experience Source: Own Survey Result, 2017

4.1.2 Determinants of Brand Equity

Overall Customer Based Brand Equity was analyzed by asking different questions grouped into four dimensions i.e. Brand Awareness, Brand Association, Perceived Quality and Brand Loyalty

By taking five level Likert scale, from top to bottom strongly agree to strongly disagree statistical analysis was conducted with SPSS 16.0.Descriptive statistical measures of central tendency and dispersions; mean and standard deviation were used to reveal the results with the understanding of the higher the mean the more the respondents agree with the statement while the lower the mean the more the respondents disagree with the statement. In addition, standard deviation shows the variability of an observed response and the mean and standard deviation results are discussed here below.

Reliability of the used study instrument was evaluated by calculating the result of the Cronbach's alpha and for all five items of brand equity was found to be in the acceptance range i.e. >0.7. (Table 4.1.2)

Variables	Cronbach's Alpha	N of Items	
Drand Awaranaga	0.056	4	
Brand Awareness	0.956	4	
Brand Association	0.976	4	
Brand perceived Quality	0.975	3	
Brand Loyalty	0.980	4	

 Table 4.2: Reliability Test of Variable

Source: Own Survey Result, 2017

Brand Awareness

With the objective of evaluating brand awareness, the prescribers 'ability to recall and recognize the brand as reflected by their ability to identify the brand under different conditions and to link the brand name, logo, symbol, and so forth to certain associations in memory was assessed by asking 4 relevant questions. As one can see from Table 4.3 familiarity with the brand followed by brand recognition and knowing the symbol or logo of the brand scored a mean of 4.12,4.11 and 4.08 while the item " Some features of Brand "X" come to my mind quickly" scored the lowest with a mean score of 3.79. The overall mean score for the Brand Awareness dimension

was 4.03, which indicate that the respondents have a good brand awareness of Diclofenac brands they prescribe.

Table 4.3: Brand Awareness Analysis

Brand Awareness variables	Mean	Std. Deviation	
I know the symbol or logo of brand that i usually	4.08	1.222	
prescribe	2.50	1.007	
Some features of brand that i usually prescribe come to my mind quickly	3.79	1.287	
I can recognize brand that i usually prescribe quickly among other competing brands	4.11	0.731	
I am familiar with these brand that i usually prescribe	4.12	1.122	
Brand Awareness	4.03	1.091	

Source: Own Survey Result, 2017

As one can see from table 4.3 knowledge of the brand, recognition of the brand and familiarity with the brand has been found to be strong however, for the question 'some futures of brand x come to my mind quickly' the mean is lesser which can show that though there is adequate brand knowledge and recognition, memorizing the brand particularly in a such a way to put some future of the product to stay in the mind of the prescriber is not very strong.

Brand Association

Looking into the brand association: Table 4.4 shows that the respondents doesn't show strong level of association with the brand with a mean of 2.87 which can indicate that brand association is not a major determinant of brand equity in the Pharmaceutical market.

Table 4.4: Brand Association analysis

Brand Association variables	Mean	Std. Deviation	
Brand that i usually prescribe have a very unique brand image, compared to competing brands	2.92	1.001	
I associate and admire people who prescribe Brand that i usually prescribe	2.63	0.927	
I like and trust the company, which make the Brand that i usually prescribe	3.06	0.940	
I like the brand image of the brand that i usually prescribe	2.88	1.016	
Brand Association	2.87	0.971	

Source: Own Survey Result, 2017

From table 4.4 it can be see that the overall mean of brand association variables is lower which implies that although the respondent have good knowledge of their choices brand their association does not go to the level of emotional attachment.

Perceived Quality

Since it is impossible for prescribers to make fully accurate judgments of the objective quality, they use quality attributes that they associate with their expectation from the drug to deliver to the patient they are selecting for he/she to buy. Hence, three items related to perceived quality were placed for the respondents and the result of the analysis is shown in table 4.5.

Table 4.5: Perceived Quality analysis

Perceived Quality variables	Mean	Std. Deviation	
I trust the quality of brand that i usually prescribe	4.06	0.979	
Products of Brand that i usually prescribe offer excellent relief	4.12	0.898	
I think Brand that i usually prescribe have a reputation of high quality	3.87	1.019	
Brand Perceived Quality	4.02	0.965	

Source: Own Survey Result, 2017

Table 4.5 reveals that all of the variables of Perceived Quality scored relatively high with an overall mean score of 4.02. The respondents also gave the highest mean score to "Products of Brand that i usually prescribe offer excellent relief" with a mean score of 4.12 while they gave a low mean score of 3.87 to the item " I think Brand that i usually prescribe have a reputation of high quality ". The results indicate that the respondents have a high level of perceived quality towards their Diclofenac brand choice.

Brand Loyalty

Loyalty is a core dimension of brand equity *Aaker (1991)*.defines brand loyalty as the attachment that a customer has to a brand. Based on this definition four items related to brand loyalty was put to the respondents and the result is shown in Table 4.6.

Table 4.6: Brand Loyalty Analysis

Brand Loyalty	Mean	Std. Deviation
I consider myself to be loyal to brand that i usually prescribe	2.71	1.037
Whenever I need, brand that i usually prescribe would be my first choice	3.61	1.131
I will keep on prescribing brand that i usually prescribe as long as its offering satisfies me even if its price is a little higher than that of its competitor	3.60	1.017
I consider myself to be loyal to brand that i usually prescribe	2.79	0.972
Brand Loyalty	3.18	1.039

Source: Own Survey Result, 2017

Table 4.6 reveals that the respondents Brand loyalty is not at a level of playing determinant role. The respondents' loyalty doesn't show strong level of association with the brand with a mean of 3.18.

Summary of the Brand Equity Elements

From the above mean score and standard deviations represented, each of the brand equity dimensions are summarized here below

Table 4.7: Summary of the overall Brand Equity determinants

Variables	Mean	Standard Deviation
Brand Awareness	4.03	1.091
Brand Association	2.87	0.971
Brand perceived Quality	4.02	0.965
Brand Loyalty	3.18	1.039

Source: Own Survey Result, 2017

According to the study findings, as one can see from table 4.7, to dimensions: brand awareness and perceived quality were identified as having un influence on the brand equity in pharmaceutical market.

4.2. Discussion

With an ultimate objective of determining the key factors that determine CBBE and assessing the impact of customers' socio demographic characteristics particularly educational qualification and work experience of prescribers on CBBE elements in pharmaceutical market of Addis Ababa. This study was conducted in government hospitals of Addis Ababa taking specific drug Diclofenac in Hospitals administered under Addis Ababa Health bureau among prescribing Physicians who are selecting a drug for their patients to buy.

By looking at the demographic profile of the respondents, which are Educational qualification and work experience of the respondents those prescribers who are prescribing the drugs in brand sometimes were found to be the majority in all qualifications i.e. General Practitioners and Specialists as well as in all work experience categories from 1 to above 10 years. However difference was observed on responding "never" to prescribing brand.15.43% of General Practitioners' and 34.05% of respondents with work experience of 1-5 years have responded that they never prescribe in brand name whereas none specialists and zero respondents with work experience category of 5 to above 10 years have replied never. Also those respondents who replied "always" are larger in Specialists and in respondents of 5 to above 10 years work experience. This finding might interestingly indicate as educational level of prescribers is increased and prescribers become more senior tendency of prescribing brand is increased.

Looking into brand popularity DICLODENK took the highest consumers preference with 38.3% followed by VOLTAREN and DIVIDO by 21.5% and 11.2% respectively. However when it is analyzed by work experience and qualification DIVIDO is more preferred than VOLTAREN by specialists and more senior respondents.

When having a look into what the respondents replied on the questionnaire on the four brand equity dimension the results indicate that out of the four dimensions, the indirect consumers of the pharmaceuticals (the prescribers) are aware of the brand and have prior concern for the product quality but are not associated and loyal showing that there is no adequate bond with the product to the level of boosting emotional attachment with the brand. This study is designed and carried out in order to analyze the applicability of customer based brand equity through its underlying dimensions in the Pharmaceutical market. According to the study's findings, two dimensions: Brand Awareness and Perceived Quality were identified as having an influence on the brand Equity in pharmaceutical market. It is not uncommon to get the brand equity that determined by not all four dimensions previously *Hossein* (2012) has found that the Customer Based Brand Equity in the Chocolate industry of Iran is made up of two dimensions namely brand loyalty and brand image.

The least impact seen on Brand association and brand loyalty might be due to; as described by *Bednarik (2005)*. In traditional pharmaceutical market often branding attempts focus more on functional/rational than emotional or self-expressive brand values. This traditional marketing often paves way to brand switching along with regulatory challenges that impede pharmaceutical brand advertisement and diminish emotional attachment could be the rationale for the findings of this research.

The findings of this research are consistent with that of *Abad (2012)* who found out that Perceived Quality had a positive effect the customer's overall brand equity, which was witnessed from the result of the mean score.

Moreover, *Aaker (1996)*, views Perceived Quality is the "core or primary" fact across the customer based brand equity framework. Similarly, *Zeithaml (1988)* describes Perceived Quality is not the real quality of the product but the customer's perception of the overall quality or superiority of the product or service with respect to its intended purpose, relative to alternatives. Nowadays, marketers across all product and service categories have increasingly recognized the importance of perceived quality in brand decisions.

On the other hand the consistency of the findings of this research can also be observed on the Brand awareness impact on brand equity. A study in Finland has found that pharmaceutical customers are influenced by brand awareness (*Bostrom, 2011*).

CHAPTER FVE

CONCLUSION AND RECOMMENDATION

5.1. Conclusion

The determinants of consumer based brand equity (CBBE) in the pharmaceutical market were analyzed by testing the applicability of Aaker's CBBE model, and it is found that Brand equity of Pharmaceutical products is directly made up of two dimensions, namely brand awareness and Perceived Quality. These two dimensions have a strong impact on brand equity. Other dimensions i.e. Brand association and Brand loyalty have a very small impact on brand equity in Addis Ababa Pharmaceutical market.

The study also found out that the most popular Diclofenac brand is DICLODENK, which is dominating the market. But this domination might not last long because of the lesser emotional attachment and between the brand as seen by the minimum impact seen by the brand loyalty and brand association can indicate sustainability of the lead by DICLODENK cannot be taken for granted.

Also there were indicative findings seen by this study that more senior and specialist respondents tend to prescribe more in brand name than the General practitioners and Respondents with lesser experience.

5.2. Recommendation

Based on the findings of this study the following recommendations are made: Marketers in the Pharmaceutical industry should concentrate their efforts primarily on developing the Perceived Quality and awareness of their brand in the customer's mind. If these dimensions are increased, it will contribute positively to the brand's equity which in turn will give high market share, new customers and increase the overall value of the brand.

Also Pharmaceutical industries have to substitute traditional pharmaceutical marketing strategies which focus on functional benefits with tailored brand management approaches that can help to enhance the emotional relationship of the customer brand, strengthen the association bond with the brand and enhance the loyalty can pave new way to be successful in the market.

References

- Abdulahi M and Shiferaw T (1997), *Pattern of prescription in JimmaHosptial*. Ethiop J Health Dev, 11(3):263–267.
- Abdurrahman I. and Mehmet F. (2015), *Effect of Brand on consumer preference: A study in Turkmenistan*. Eurasian Journal of Business and Economics, 8(16):Pp.139-150
- Ambler, T. (1997), How Much Of Brand Equity Is Explained By Trust?, Management Decision, 35 (4): Pp. 283-292
- Anselmsson J., Johansson U. And Persson N., (2008), The Battle Of Brands In The Swedish Market For Consumer Packaged Food: A Cross-Category Examination Of Brand Preference And Liking, Journal Of Brand Management, 16(1):Pp. 63-79.
- Bednarik J.(2005), Does Brand Differentiate Pharmaceuticals, Neuroendocrinology Letters, 26(6): Pp. 635–652.
- Byoungho, J., & Yong, G. (2005), Integrating Effect Of Consumer Perception Factors In Predicting Private Brand Purchase In A Korean Discount Store Context, Journal Of Consumer Marketing, 22(2): Pp 62-71.
- Chen A.C.H.,(2001), Using Free Association To Examine The Relationship Between The Characteristics Of Brand Associations And Brand Equity, Journal Of Product & Brand Management 10 (7): Pp. 439 – 451.
- David A. Aaker (1991). Managing Brand Equity, United States Of America, the Free Press, New York, NY.
- David A. Aaker (1996). Building Strong Brands, United States of America, The Free Press New York, NY.
- Desalegn A. (2013), Assessment of drug use pattern using WHO prescribing indicators at Hawassa University teaching and referral hospital, south Ethiopia: a cross-sectional study. Health Services Research, 13:170
- Dheeraj, R.(2015), Impact Of Advertising On Customer Purchase Behavior In Pharmaceuticals, International journal of Management science and Business research, 4(10):Pp.125-137
- Dibb S., Simikin L., Pride W.M., & Ferrell O.C (2006), Marketing Concepts & Strategies, 5th Edition, Houghton Mifflin Company Charles Harford.

- Dikaso D, Gobe Z, Teklemariam S.(1998), *A base line survey on prescribing indicators and underlying factors influencing prescribing in southern Ethiopia*, Ethiopia .J. health Dev, 12 (2) 87-93
- Dorota, R.-H. (2013). Determinants Of Purchasing Behavior, Econpapers, 17(1): Pp. 333-345.
- Dubois,C& Laurent G.(1993).The market of luxury goods.Eur.Journal of Marketing,27(1): Pp. 35-44
- EglePetrauskaite (2014) Effect of Brand Image on Consumer Purchase Behaviour: International Footwear Market Comparison. Unpublished
- Farquhar, P. H. (1990). Managing Brand Equity, Journal of Advertising Research, 30(4):Pp. 7-12.
- Fournier,S(1998) Consumers and their Brands:DevelopingRelationship,Journal of consumers research,24: Pp.343-373
- FMOH. (2008) Health and Health Related Indicators, Planning and Programming Department, FMOH, Addis Ababa.
- George N. Lodorfos, Kate L. Mulvana, John Temperley(2006), Consumer Behaviour: Experience, Price, Trust And Subjective Norms In The Otc Pharmaceutical Market, Innovative Marketing, 2(3): Pp. 41-65
- Grambler W.D And Brown S.P., (1996), *Effects Of Brand Awareness On Choice For a Common, Repeat-Purchase Product, Journal Of Consumer Research.* 17(3): Pp. 141-8.
- Griffths S. (2008), Marketing Masterclass Pharmaceutical branding: 'To brand or not to brand'. Journal of Medical Marketing, 8(2); Pp.113–118
- Hashim&Muhammad . (2013). Consumer Perception About Branding And Purchase Intention:A Study Of FMCG In An Energying Market. Journal Of Basic & Applied Scientific Research,3(2): Pp. 340-347
- Hossien Ahmed (2012). Conceptualization Of Customer Based Brand Equity In Financial service Sector Of Iran. Journal Of Consumer Marketing, 15(4): Pp. 123-133
- Hurwitz M. And Richard E (1988), Persuasion or Information? Promotion and the Shares of Brand Name and Generic Pharmaceuticals, the Journal of Law And Economics, 31 (1):Pp.302-320

- Imam, F. (2013).Gender Difference In Impulsive Buying Behavior And Post Purchasing Dissonance :Under Incentive Consitions. Journal of Business Strategies, 7(1): Pp. 23-29
- Imran Khan, Tauqir Ahmad Ghauri And Salman Majeed(2012), Impact Of Brand Related Attributes On Purchase Intention Of Customers. A Study About The Customers Of Punjab, Pakistan, Interdisciplinary Journal Of Contemporary Research In Business, 4 (3): 193-200
- Kapferer J.N (2008), The Strategic Brand Management: Creating And Sustaining Brand Equity, Long Term, Kogan Page, London.
- Katarina Boström (2011) Consumer behaviour of pharmacy customers. *Journal of international Business*, 4(3): Pp. 25-32
- Keller K.L., (1998), Strategic Brand Management: Building, Measuring And Managing Brand Equity. Upper Saddle River NJ: Prentice Hall
- Keller K.L., (1998), Strategic Brand Management: Building, Measuring And Managing Brand Equity. Upper Saddle River NJ: Prentice Hall
- Keller K.L., (2004), Strategic Brand Management: Building, Measuring And Managing Brand Equity, 2nd Edition. New Delhi: Prentice Hall of India Private Limited.
- Keller KL., (1993), Conceptualizing, Measuring And Managing Customer-Based Brand Equity. Journal of Marketing 57(1): 1-22.
- Keller KL., (1993), Conceptualizing, Measuring And Managing Customer-Based Brand Equity. Journal of Marketing 57(1): 1-22.
- Keller, K.L. (2003). Strategic Brand Management.New Delhi, Prentice-Hall of India.
- Keller, K.L. (2008), Best Practice Cases in Branding: Lessons from the World's Strongest Brands, 3rd Ed., Pearson Education, Upper Saddle River, NJ.
- Kotler P. And Keller K.L.,(2006), Marketing Management, 12th Edition. Upper Saddle River, NJ: Prentice Hall.
- Kotler P. And Keller K.L.,(2006), Marketing Management, 12th Edition. Upper Saddle River, NJ: Prentice Hall.
- Kuhn K.FrankA,Nigel K. (2013). Application of Keller's Brand Equity Model In A B2b Context. Griffith University Publishing,Australlia

- Laroche, M. And Sadokierski, R.W. (1994), Role Of Confidence In A Multi-Brand Model Of Intentions For A High Involvement Service, Journal Of Business Research, 29(1): Pp. 1-12.
- Laroche, N., Kim, C. And Zhou, L. (1996), Brand Familiarity And Confidence As Determinants Of Purchase Intention: An Empirical Test In A Multiple Brand Context, Journal Of Business Research, 37(10): Pp. 115-120
- Lwanga SK, Lemeshow S. (1991) Sample Size Determination for Health Studies: A Practical Manual, World Health Organization, Geneva Pp. 1-5.
- ManijehBahrinizadeh, MajidEsmaiilpoor, MasoudHaraghi (2014). *Brand Equity And Country Of Origin Model In Pharmaceutical Industry*. Kuwait Chapter of Arabian Journal of Business and Management Review, 3(6)
- Michael R.Solomon. (2013). Consumer Behavior:Buying, Having And Being (10ed.). Pearson Education
- Ministry of Science Technology (MOST,2017) Ethiopian Pharmaceutical Technology Roadmap
- Mohammad Shohel, Tasnuva Islam, Md. Mamun Al-Amin (2013).*Investigation Of Consumer Attitudes, Intentions And Brand Loyal Behavior On The OTC Drugs In Bangladesh*.BritishJournal Of Pharmaceutical Research 3(3): Pp. 454-464
- Moss G. (2004), A brand logic for pharma? A possible strategy based on FMCG experience. International Journal of Medical Marketing, 4:Pp.55-62
- Oliveira-Castroa, J., G. Foxall, V. James, R. Pohl, M. Dias, and W. Chang Sing.(2008), Consumer-Based Brand Equity and Brand Performance, The Service Industries Journal 28 (4): Pp. 445–561.
- Pinki Rani (2014), Factors influencing consumer behavior.Int.J.Curr.Res.Aca.Rev,2(9): Pp. 52-61
- Pradhan J. Prasad M. (2014) Measuring Customer Based Brand Equities of FmcgsIn Indian Rural Markets-An Empirical Study. Journal Of Business And Management Invention, 3 (1): Pp. 51-62
- Rahul Guha (2008). *Analyzing competition in Pharmaceutical Industry*. Economics Committee Newsletter, 8(1):Pp.6-9
- Robert P. Leone etal(2006) Linking Brand Equity to Customer Equity. *Journal of Service Research*, 9(2): Pp. 125-138

Tong X. Hawley J (2009), Measuring Customer Based Brand Equity: Empirical evidence from Sportswear market in China. Journal of Product and Brand Management 18(4), 262-271

Annexure

Questionnaire

Dear respondents:

You have been randomly selected to be part of a study with a topic Pharmaceutical Customers' Purchasing Behavior on Brand Equity Dimensions: A Study in Government Hospitals Of Addis Ababa and we would, therefore, like you to fill this questionnaire .This study is conducted by St Mary,sUniversity for partial fulfillment of graduate studies in Master of Business Administration (MBA) degree. This questionnaire is designed to collect data on assessing the relationship between dimensions of brand equity (brand perceived quality, brand awareness, brand association and brand loyalty) and the Customer's preference towards the pharmaceutical market specifically in government hospitals of Addis Ababa. I kindly ask you to give me few minutes of your time to answer the questions below. Your willingness and cooperation in giving genuine information is well appreciated and the information you provide me will be used for only academic purpose and will be kept in strict confidentiality. You are free to refuse to answer any question that is asked. If you have any questions about this study you may contact the principal investigator:

- ↓ Name : MarthaAlemayehu
- Email: martha2572@yahoo.com

I. Demographic Information

Variables	Response
Age	
24-29	
29-34	
34-40	
Above 40	
Sex	
Μ	
F	
Educational Qualification	
GP	
Specialist	
o SURGEON	
• INTERNIST	
• GYNECOLOGIST	
• DENTIST	
Years of Experience	
1-3	
3-5	
5-10	
ABOVE 10	
	Age 24-29 29-34 34-40 Above 40 Sex M F Educational Qualification GP Specialist o SURGEON o INTERNIST o GYNECOLOGIST o DENTIST 1-3 3-5 5-10

I. Basic information of number of drugs Prescribed/used

- 1. How many diclofenac prescriptions do you write per day on average (for physicians only)
 - 4 1-3
 - 4 3-5
 - 4 5-10
 - 4 Above 10
- 2. How often do you prescribe Diclofenac brands
 - \rm Always
 - 4 Sometimes
 - \rm 🕹 Rarely
 - 4 Never
- 3. Which Diclofenac brand do you usually prescribe (If your answer for question 2 is different

from "never")

- ♣ DICLOAS
- CLOFEN
- \rm ALMIRAL
- ♣ DICLODENK
- \rm 🔶 VOLTAREN
- 🔶 DIVIDO
- \rm 🕹 CATAFLAM
- ♣ Other Please Specify
- II. Brand Equity Dimensions (The statements drawn (X) are referring to the brand you have selected in part II question No. 3 above.

Brand Awareness					
	Strongly	Disagree	Indifferent	Agree (4)	Strongly
	Disagree	(2)	(3)		Agree (5)
	(1)				
I know the symbol					
or logo of brand that					
i usually prescribe					
Some features of					
brand that i usually					
prescribe come to					
my mind quickly					
I can recognize					
brand that i usually					
prescribe quickly					
among other					
competing brands					
I am familiar with					
these brand that i					
usually prescribe					
Brand Association					
Brand that i usually					
prescribe have a					
very unique brand					
image, compared to					
competing brands					
I associate and					
admire people who					
prescribe Brand that					
i usually prescribe					
I like and trust the					
company, which					

make Brand that i				
usually prescribe				
I like the brand				
image of Brand that				
i usually prescribe				
Brand Perceived Qua	ality	I	I	
I trust the quality of				
brand that i usually				
prescribe				
Products of Brand				
that i usually				
prescribe offer				
excellent relief				
I think Brand that i				
usually prescribe				
have a reputation of				
high quality				
Brand Loyalty				
I consider myself to				
be loyal to brand				
that i usually				
prescribe				
Whenever I need,				
brand that i usually				
prescribe would be				
my first choice		 		

I will keep on			
buying brand that i			
usually prescribe as			
long as its offering			
satisfies me I am			
still willing to buy			
this brand even if its			
price is a little			
higher than that of			
its competitor			
I consider myself to			
be loyal to brand			
that i usually			
prescribe			