



Addis Ababa University School of Commerce

Department of Marketing Management

**Determinants of Youth's Brand Choice for Mobile
Phone Handsets Purchase**

(A Study on University Students in Addis Ababa)

By

Abdulselam Belete

June, 2015

Addis Ababa, Ethiopia

Addis Ababa University School of Commerce

Department of Marketing Management

**Determinants of Youth's Brand Choice for Mobile
Phone Handsets Purchase**

(A Study on University Students in Addis Ababa)

By: Abdulselam Belete

ID.No. /GSE /0708/05

Advisor: Dr. Temesgen Belayneh

**A Thesis Submitted to the School of Graduate Studies of Addis
Ababa University school of commerce in Partial Fulfillment of
the Requirement for the Award of Master of Arts Degree in
Marketing Management**

June, 2015

Addis Ababa University

Addis Ababa, Ethiopia

Addis Ababa University School of Commerce

Department of Marketing Management

Post Graduate Programme

Board of Examiners Approval Sheet

Determinants of Youth's Brand Choice for Mobile Phone

Handsets Purchase

(A Study on University Students in Addis Ababa)

By: Abdulselam Belete

Approved by:

.....
External Examiner's Name

.....
Signature

.....
Date

.....
Internal Examiner's Name

.....
Signature

.....
Date

.....
Department Chair person's Name

.....
Signature

.....
Date

Statement of Certification

This is to certify that Abdulselam Belete Seid has carried out his research work on the topic entitled '**Determinants of Youth's Brand Choice for Mobile Phone Handsets Purchase: A Study on University Students in Addis Ababa**'. The work is original in nature and is suitable for submission for the award of Masters Degree in Marketing Management.

Certified by:

Dr. Temesgen Belayneh
Advisor's Name

.....
Signature

.....
Date

Statement of Declaration

I hereby declare that **Determinants of Youth's Brand Choice for Mobile Phone handsets purchase: A Study on University Students in Addis Ababa** project is wholly the work of mine, Abdulsalam Belete. I have carried out the present study independently with the guidance and support of the research advisor, Dr. Temesgen Belayneh. Also any other contributors or sources have either been referenced in the prescribed manner or are listed in the acknowledgements together with the nature and the scope of their contribution. This study has not been submitted for award of any Degree or Diploma Program in this or any other Institution. It is offered for the partial fulfillment of the degree of Masters of Arts in Marketing Management.

Declared by:

Abdulsalam Belete		
Student's Name	signature	Date

TABLE OF CONTENTS

Title	page
Acknowledgement	viii
List of Tables.....	ix
List of Figures	x
<i>ABSTRACT</i>	xi
CHAPTER ONE	
INTRODUCTION	
1.1. Background of the Study	1
1.2. Statement of the Problem.....	2
1.3. Research Questions.....	4
1.4. Hypothesis of the Study	4
1.5. Objectives of the Research	5
1.5.1. General Objective	5
1.5.2. Specific Objectives	5
1.6. Significance of the Research.....	5
1.7. Scope of the Study	6
1.8. Limitations of the Study	6
1.9. Organization of the Paper	6
CHAPTER TWO	
REVIEW OF RELATED LITERATURE	
2.1. Introduction	7
2.2. Consumer Behavior.....	8
2.3. Types of Consumer Purchasing Behavior	10
2.3.1. Complex buying behavior.....	11

2.3.2. Dissonance-reducing buyer behavior.....	11
2.3.3. Habitual buying behavior.....	12
2.3.4. Variety-seeking buying behavior.....	12
2.4. Major Factors Influencing Buying Behavior	12
2.4.1. Cultural factors	13
2.4.2. Social Factors.....	14
2.4.3. <i>Personal factors</i>	16
2.4.4. Psychological Factors	18
2.5. Marketing Mix	18
2.5.1. Product.....	19
2.5.1.2. Perceived quality.....	20
2.5.2. Price	21
2.5.3. Promotion.....	22
2.6. Brand Image and Country of Origin	23
2.7. Empirical Studies	27
2.8. Conceptual Framework of the Study.....	21
CHAPTER THREE	
RESEARCH METHODOLOGY	
3.1. Introduction	30
3.2. Research Type, Design and Approach	30
3.3. Target Population and Sampling Design.....	31
3.3.1. Defining the Population	31
3.3.2. Sample Selection Method	31
3.3.3. Sample Size.....	32
3.4. Sources of Data	33

3.5. Development of Questionnaire.....	33
3.6. Validity and Reliability	34
3.7. Data Collection Procedure	35
3.8. Data Analysis Method.....	35
3.8.1. Multinomial Logistic Regression.....	35

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction	39
4.2. Descriptive Statistics Analysis	39
4.2.1. Analysis of Socio-economic Profile of Respondents	39
4.2.2. Current and Future Mobile Phone Brand of Respondents.....	40
4.2.3. Factors Affecting Mobile Phone Handsets Brand Choice	41
4.2.4. Youth's Choice for Mobile Phone Handset Features	42
4.3. The Multinomial Logistic Regression Analysis.....	43
4.3.2. Overall Test of Relationship	44
4.3.3. Model Accuracy.....	45
4.3.4. Goodness - of- Fit	46
4.3.5. Pseudo R-Square.....	46
4.3.6. Testing Multicollinearity	47
4.4. Hypothesis Testing	49
4.5. Discussions of the Results.....	51

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction	56
5.2. Summary of Major Findings	56

5.3. Conclusions	57
5.4. Recommendations	58
5.5. Managerial Implications and Recommendation for Future Research.....	59
REFERENCES.....	60
APPENDICES	

Acknowledgement

I have learned a lot and really enjoyed while working on this research project. I would like to thank sincerely all those who helped me with their valuable support during the entire process of this paper. I would especially like to express my deep gratitude to my advisor Dr. Temesgen Belayneh for his constructive thoughts, insightful suggestions, and useful guidance throughout the research project works. Thank you all.

List of Tables

Table 4.1. Demographic Profile of Respondents	40
Table 4.2: Factors Affecting the Choice of Mobile Phone Brand.....	42
Table 4. 3. Model Fitting Criteria	44
Table 4.4: Classification matrix	46
Table 4.5. Goodness-of-Fit.....	46
Table 4.6. Pseudo R-Square	46
Table 4.7 Parameter Estimates Standard Error	48
Table 4.8. Variance Inflation Factor Results.....	48
Table 4.9. Results of Multinomial Logit Analysis: Likelihood Ratio Tests	50

List of Figures

Figure 2.1: Consumer behavior Product-Person-Situation	8
Figure 2.2: Model of Buyer Behavior	10
Figure 2.3: Four types of buying behavior	11
Figure 4.1: Current and Future Brand of Respondents	41
Figure 4.2: Respondents' preference of mobile handset features	43

ABSTRACT

Today, mobile phone handsets market is one of the most turbulent market environments due to increased competition and change. Thus, it is of growing concern to look at consumer buying decision process and cast light on the factors that finally determine consumer choices between different mobile phone handset brands. On this basis, this study had investigated the various factors which impact on the selection of mobile phone handsets among young customers. The various constructs such as quality, recommendations, price, innovative features, mobile phone handset features, country of origin, brand image, stylish appearance, post sales service and celebrity endorsement of the brand, and effective promotion have been conceptualized into an integrated framework to investigate the factors which can affect the selection of mobile phone handsets. It also investigated upon the relative significance of these factors in determining the selection of mobile phone handsets. Convenience sampling procedure was employed to contact 400 respondents. A questionnaire survey was used to collect data through face to face interview. The data was analyzed using the descriptive statistics and Multinomial logistic regression. A computer program which is commonly called statistical package for social science (SPSS) was used to process the collected data. The output of multinomial logistic regression which is called likelihood ratio test identified statistically significant effects amongst drivers of choice behavior. The results showed that phone handset features, price, stylish appearance, and innovative feature of the mobile phone handset significantly influence the brand choice decisions of the educated youth. Therefore, it is recommended that mobile phone handset marketers and manufacturers in Ethiopia should prioritize and re-focus their efforts on these significant factors influencing the youth in choosing mobile phone handsets brand in order to extract benefit from this segment effectively.

KEY WORDS: *brand-choice, mobile phone handset, Multinomial logistic regression*

CHAPTER ONE

INTRODUCTION

This chapter starts by the background of the study and the discussion of the problem. Further research questions, objectives, scope, limitations of the study are defined. It ends by presenting the outline of the thesis.

1.1. Background of the Study

Consumers are individuals and households that buy the firms product for personal consumption (Kotler, 2004). The field of study which concerned about the behavior of consumers is consumer behavior. The American marketing association defines consumer behavior as “the dynamic interaction of cognition, behavior, and environmental events by which human beings conduct the exchange aspects of their lives.” In this definition there are three important aspects. One is, the consumers are constantly changing across time. Second, understanding what they think, feel and do is important to develop successful marketing strategies. Third, the definition of consumer behavior is consistent with the definition of marketing which also emphasized on exchange.

The success of a business depends on the quality of its marketing strategy, and in turn the quality of marketing strategy depends on knowing, serving and influencing consumers (Peter and Olson, 1990). So, before taking any marketing action, understanding consumer behavior is big business for marketers especially in today’s competitive and dynamic business environment. Generally, understanding of consumer’s behavior is critical element in developing marketing strategies which is intended to increase the probability of frequency of consumer behaviors, such as frequenting particular stores or purchasing particular products. This is accomplished through developing and presenting marketing mixes directed at selected targets markets. A basic marketing concept holds that organizations exist to satisfy consumers’ needs. These needs can only be satisfied to the extent that marketers understand the people or organizations that will use the products and services they are trying to sell, and that they do so better than their competitors (Peter and

Olson, 1990). The consumers needs and attitudes at a given time are a function of the consumers past experiences, consumer characteristics, their motivations, environmental influences and past marketing stimuli (price, promotion, product and in store strategies directed to the consumer (Assal, 1987).

Before purchasing a product consumers evaluate based on different criteria and make a choice. Consumer decision making means a consumer make a choice between more than one option of goods or services. Today, Customers are in a tough spot. Individuals have exposed to different window of information and varieties of products; many great deal of choices and options available in the market place impulse their purchase decision.

Hence, understanding and predicting brand choice decisions by consumers have been a topic of interest to both marketers and researchers. Brand choice investigation involves understanding consumer behaviors in their selection of brands among various product categories (Bentz and Merunka, 2000). In the past, brands have been perceived as products with different attributes; however, brands are now viewed as personalities, identities, and have special meanings intrinsic to consumers (Ballantyne et al., 2006). Consumers choose between brands based on their individual preferences, individual and environmental factors, past experiences and the brands marketing mix elements (Peter and Olson, 1990). This shows that consumers' choice of a brand is influenced by several factors like cultural factors, social factors, quality, price, brand name and image, promotional tools, advertisements, celebrity endorsers, the features of a product are to mention a few. However, the importance of their influence varies by product category and the consumers characteristics.

1.2. Statement of the Problem

The knowledge of consumer behavior helps the marketer to understand how consumers think, feel and select from alternatives like products, brands and the like and how the consumers are influenced by their environment, the reference groups, family, and salespersons. As it is found in different consumer behavior theories a consumer's buying behavior is influenced by cultural, social, personal and psychological factors.

Extensive studies have been conducted to understand the influence of the above variables on consumers purchasing decisions especially in the developed world with different product categories and segments of consumers and have found dissimilar results on the degree of their influence . For instance, Khan and Rohi (2013) investigating the youths' they found though all the factors are important on brand choice for the purchase of mobile phones, their findings showed that the brand choice of youths appears to be influenced largely by the quality, brand image and recommendations by family and friends. According to the study conducted by Somoro and Gumhro(2013) on the consumer behavior in mobile phone markets in Pakistan showed that low price with large screen and familiar brand is the preferences of students when purchasing a mobile phone. Dzandu et'al (2014) in their study of determinants of students brand choice they concluded that in spite of the economic handicaps students brand choice was driven most by perceived quality not price The study conducted in south Africa by North et'al.(2014) showed usability and price is an important variable when making purchasing decisions of mobile phones..

In Ethiopia the use of mobile phones by the youth has progressing as well as most of the young is enrolling in the university. It seems because of this mobile phone handsets assembler companies like TECHNO, TANA, G-Tide and HDASE are attracted by the mobile phone market in Ethiopia. Understanding the behaviors of this segments of consumer's is crucial for manufacturers and traders (like importers) in order to shape their marketing activities in line with the behavior. However, the important variables that affect choice when making decisions to purchase mobile phone handsets and their degree of influence in Ethiopia specifically on youth is yet to fully explore except one study conducted by Sata (2013) on Hawasa city consumers buying behavior of mobile phone handsets which examine the behavior of all consumers without segmenting them. However, generalizing this result to other region consumers and segments is not acceptable because according to the different studies the behavior of consumers in the purchase decisions differs based on different factors like socio-economics, lifestyles, demographic factors (i.e. age and gender) etc. As a result, there is a knowledge gap about the influence of the different factors on youth specifically on university students brand choice for mobile phone handsets purchase.

1.3. Research Questions

Hence, based on the above research gap this study aims to answer the following questions:

- i. What are the determinants of youth's brand choice for the purchase of mobile phone handsets?
- ii. Which factors are relatively important in the choice of mobile phone handsets?
- iii. Which mobile phone handset feature is most important for the youth?

1.4. Hypothesis of the Study

After examining the related literatures related to factors influencing choice decisions the following hypotheses were formulated and tested.

H1: The perceived quality of a mobile phone handset brand is related significantly and positively to the choice of that brand.

H2: Price is significantly related to the brand choice of the youths.

H3: Brand choice is related positively to the celebrity endorsement used for the brand.

H4: Stylish appearance is an important factor in brand choice of young consumers.

H5: Brand choice is influenced positively by the promotional tools.

H6: Youth's brand choice is positively influenced by family and friends recommendations

H7: Brand image has a positive impact on brand choice.

H8: Country of origin is a significant factor for brand choice of young consumer.

H9: Innovative features of mobile phone handset significantly and positively influence the choice of young's.

H10: There is a significant positive relationship between features of a handset and its choice.

H11: After-sale services have a significant positive impact on youths' mobile phone handset brand choice.

1.5. Objectives of the Research

1.5.1. General Objective

The general objective of this study is to examine the important factors that determine youth's brand choice for mobile phone handsets purchase.

1.5.2. Specific Objectives

- To examine the determinants of mobile phone handset brand choice in the context of young consumers' market.
- To identify the relative importance of the factors for the choice of mobile phone handsets.
- To find out the most preferred features of the mobile handset.

1.6. Significance of the Research

Any kind of research has something to add to the accumulated body of knowledge of mankind and also used to solve particular problem at hand. Accordingly, this study identified the important factors that influence youth's choice of mobile phone handsets so that the result of this study is believed to have significant contributions for mobile phone handset manufacturers, marketers, (assemblers and importers), academicians and researchers. First and foremost, it can have a significant benefit for the mobile phone handset manufacturers and marketers as a whole in filling the Knowledge gap on young consumers' choice criteria. Accordingly, they may shape their marketing systems and extract the young segment market effectively. Additionally, the study can contribute to the marketing knowledge in general and consumer behavior in particular. Moreover, it can pave the way for academicians who are interested to make further investigation on the issue.

1.7. Scope of the Study

The study is bounded to private and public university undergraduate students in Addis Ababa city. In addition, after reviewing different literatures concerning the consumers buying behavior, the researcher also identified the important decision factors to be considered in the study. The variables included in the study are price, brand image, product quality, promotion, stylish appearance, friends and family, innovative features, celebrity endorsement, country of origin, and post purchase services. Factors related to the buyer's characteristics are excluded.

1.8. Limitations of the Study

This research is limited by the fact that a small sample of participants was selected it may not fully represent the behavior of the entire population (all young university undergraduate students). In addition, as the convenience sampling was used, bias may exist. If the random sampling was possible and applied, it would contribute a higher credibility of the results. Moreover, since the majority of the respondents are well educated and youngsters, generalization to other groups might not be applicable.

1.9. Organization of the paper

The study is organized in to five chapters. Chapter one of this study contains introduction, statement of problem, objective, significance, and scope and limitation of the study. The second chapter dedicatedly discussed the theoretical and empirical reviews of literatures related to consumer behavior, the influence of the various factors on purchase decisions in general and on mobile phone handsets in particular. Chapter three focuses on research design and methodology of the study. Chapter four deal with findings of the study. The last chapter presented summary of the findings, conclusions, and recommendation.

CHAPTER TWO

REVIEW OF RELATED LITERATURES

In this chapter the theories related to consumers behavior, conceptual theories of marketing mix and related research that have done about the youths' behavior of mobile phone handset purchasing decision are extensively discussed and reviewed.

2.1. Introduction

The brand history tells us how the people have used the brand as a mark of identification. In the earlier times the brand mark was used to differentiate the goods of one producer to others. Now- a day's brand is not only used for differentiation but also used to justify the purchase decision.

Brands play a very important role in the consumer decision making processes. It is really important for companies to find out customer's decision making process and identify the conditions, which customers apply while making decision (Cravens and piercy, 2003).

Brand choice actually indicates the consumer's selective choice of particular brand i.e. it shows the preference or demand of a specific brand over the competitors' brand. Understanding and predicting brand choice decisions by consumers has been a topic of interest to both marketers and researchers. Brand choice investigation involves understanding consumer behaviors in their selection of brands among various product categories (Bentz and Merunka, 2000). In the past, brands have been perceived as products with different attributes; however, brands are now viewed as personalities, identities, and have special meanings intrinsic to consumers (Ballantyne et al. 2006).

Understanding of consumer behavior is the key to the success in marketing strategy both domestic and global. Consumer behavior tends to be product and situation specific. This is, purchase and consumption behavior may vary from one product to another or even vary for the same product from one situation to another. The consumer behavior study is not always transferable from one marketing situation to another. Thus, this study is framed up to

understand consumer behavior which can be lead to set the marketing strategy for mobile phone product.

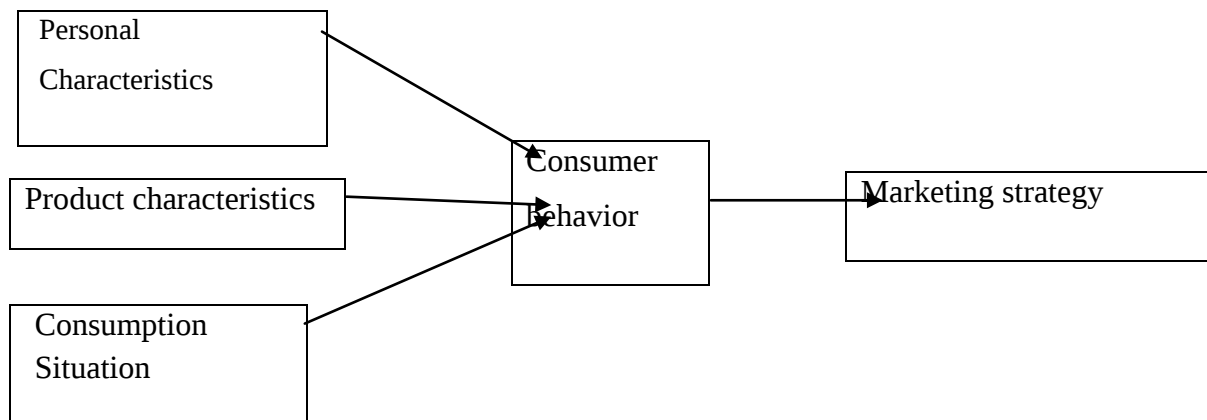


Figure 2.1: Consumer behavior Product-Person-Situation

Source: Hawkins, 1992

2.2. Consumer Behavior

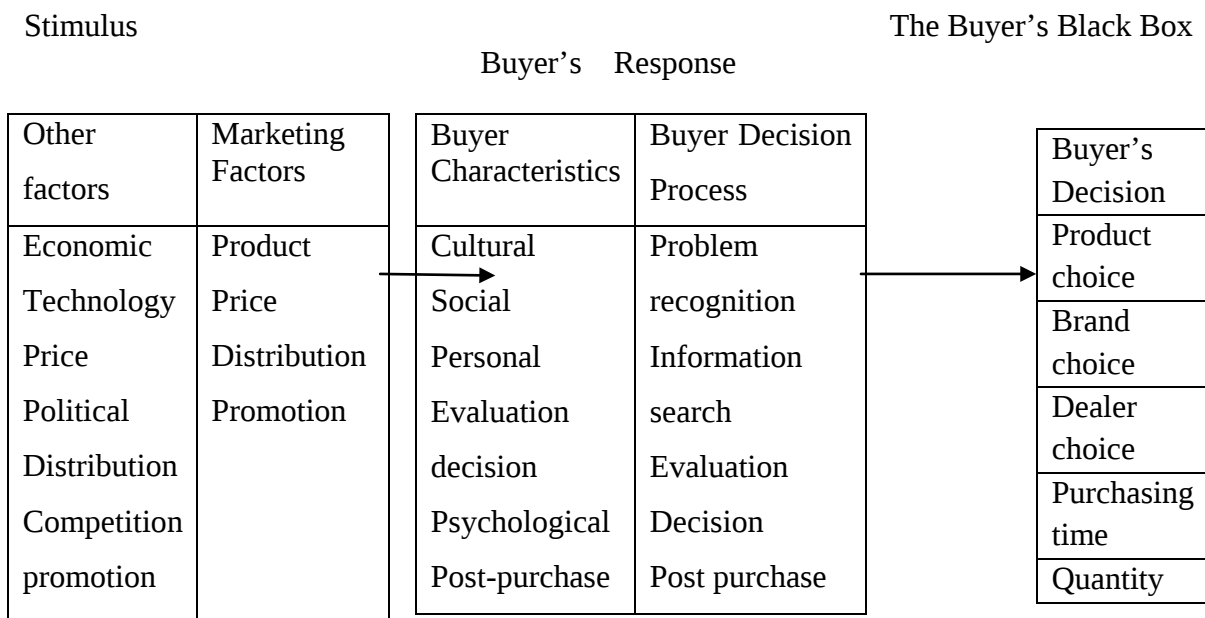
Any person engaged in the consumption process is consumer (Walters & Bergile, 1989:p.8), but these buyers can be identified as the type of market to which they belong. A consumer is anyone who engages himself in physical activities of evaluating, acquiring, using or disposing of goods and services (Khan, 2006). Here, it is possible to say that a consumer is not only the actual buyer of the goods and service, it can be also the user. For example, a product is purchased by the head of the family and used by the whole family, *i.e.*, a refrigerator or a car. A final consumer consists of individuals who buy for personal consumption or to meet the collective needs of the family. The field of consumer behavior is the study of individuals, groups, or organizations, and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy needs, and the impacts these processes have on the consumer society (Skinner, 1994). Historically, the study of consumer behavior focused on buyer behavior or “why people buy”. More recently, researchers and practitioners have focused on consumption analysis, why and how people consume in addition to why and how they buy. Analysis of consumption behavior represents a broader conceptual framework than buyer behavior does because it includes issues that arise after the purchase process occurs (Blackwell et al.,2001). Khan (2006) defines consumers behavior as the decision-making process and physical activity

involved in acquiring, evaluating, using and disposing of goods and services. Similarly, Schiffman and Kanuk (2000) indicated that the study of consumer behavior as focusing on how individuals make decisions to spend their available resources (times, money, effort) on consumption-related items. That included what they buy, why they buy it, where they buy it, how often they buy it, and how often they use it. Consumer behavior refers to the selection, purchase and consumption of goods and services for the satisfaction of their wants. Consumer behavior is dynamic because the thinking, feelings, and actions of individual consumers, targeted consumer groups, and society at large are constantly changing (Howard, 1989).

The study of consumer behavior is made with the eagerness to explain, in a global way, the process that is implied in any purchase decision. Not only does it try to describe this process, but it also attempts to predict it and lastly to control it. This task has three levels to study : (1) the individual perspective of consumer needs, perceptions, attitudes, etc. (2) the interpersonal level, which considers the importance of groups, opinion leader, etc. in decision making, and (3) the socio-cultural level wherein the influence of the social class, the culture, and the lifestyle are reflected on consumer behavior.

Kotler and Armstrong (2001) figured the model of consumer behavior as shown in figure 2. It is the study of how and why people purchase goods and services in terms of consumer purchasing behavior. The term covers the decision making processes from those that precede the purchase of goods or services to the final experience of using the product or service. Models of consumer purchasing behavior draw together the various influences on, and the process of, the purchasing decision. They attempt to understand the proverbial 'black box' of what happens within the consumer between his or her exposure to marketing stimuli and the actual decision to purchase. The marketing stimuli consist of product, price, place and promotion; other stimuli include major forces and events in the buyer's environment: economic, technology, political and competition. Both the other stimulus and the elements of the marketing mix enter the buyer's black box and interact with the buyer's characteristics and decision processes to produce a series of output inform of purchase decision. Included in the questions of whether to buy, which product and brand, which dealer, when, and in what qualities.

The buyer characteristics including cultural, social, personal, and psychological factors influencing how they perceived and react to the stimulus. The buyer's decision process consists of need recognition, information search, and evaluation of alternative, purchase decision, and post purchase behavior. Then, they turned into a set of observable product choice, brand choice, dealer choice, purchase timing, and purchase amount.



Input.....output

Figure 4. 2: Model of Buyer Behavior

Source: Kotler and Armstrong (2001)

The essence of the model is that it suggests that consumers will respond in particular ways to different stimuli after they have processed those stimuli in their minds. In more detail, the model suggests that factors external to the consumer will act as a stimulus for behavior, but that the consumer's personal characteristics and decision-making process will interact with the stimulus before a particular behavioral response is generated.

2.3. Types of Consumer Purchasing Behavior

Consumer decision making varies with the type of purchasing decision. Complex and expensive purchases are likely to involve more buyer deliberation and more participants. There are classified into four types of consumer purchasing behavior. Bovee (1992)

suggested that involvement is highest when the product has personal or symbolic meaning to the individual, when it is related to centrally held values, when risk is involved in its purchase or use, and when it has high hedonic value.

High involvement purchase is important to the consumer such as purchases are closely to the consumer's ego and self-image and involve some financial, social or personal risk. In such case, it is worth the consumer's time and energy to consider product alternatives carefully. Low involvement purchase is not important to the consumer, financial, social and psychological risks are not nearly as great. In such cases, it may not be worth the consumer's time and effort to search for information about brands and to consider a wide range of alternatives. Kotler, (2001) also distinguished four types of purchasing behavior based on the degree of buyer involvement and the differences among brands.

Table 2.1: Four types of buying behavior

Significant differences	High involvement	Low involvement
between brands	Complex buying behavior	Variety-Seeking buying behavior
Few differences	Dissonance-Reducing	
between brands	buying behavior	Habitual buying behavior

Source: Kotler, 2001

2.2.1. Complex buying behavior

Consumers undertake complex buying behavior when they are highly involved in a purchase and perceive significant differences among brands, or when the product is expensive, risky, purchased infrequently and highly self-expressive. Typically, the consumer has much to learn about the product category.

2.2.2. Dissonance-reducing buyer behavior

Dissonance-reducing buying behavior occurs when consumers are highly involved with an expensive, infrequent or risky purchase, but see little difference among brands. For example, consumers buying carpeting may face a high involvement decision because

carpeting is expensive and self-expressive. Yet buyers may consider most carpet brands in a given price range to be the same. In this case, because perceived brand differences are not large, buyers may shop around to learn what is available, but buy relatively quickly. They may respond primarily to a good price or to purchase convenience. After the purchase, consumers might experience post-purchase dissonance (after-sales discomfort) when they notice certain disadvantages of the purchased carpet brand or hear favorable things about brands not purchased. To counter such dissonance, the marketer's after-sale communications should provide evidence and support to help consumers feel good both before and after their brand choices

2.2.3. Habitual buying behavior

Habitual buying behavior occurs under conditions of low consumer involvement and little significant brand difference such as salt. The consumer has little involvement in this product category. They simply go to the store and reach for a brand. Consumers appear to have low involvement with most low cost, frequently purchased products. Consumers do not search extensively for information about the brands, evaluate brand characteristics, and make weighty decisions about which brand to buy. Consumers do not form strong attitudes towards a brand; they select the brand because it is familiar. Consumers may not evaluate the choice even after Purchase.

2.2.4. Variety-seeking buying behavior

Some buying situations are characterized by low consumer involvement but significant brand differences. Consumers are often observed to do a lot of brand switching which occurs for variety rather than dissatisfaction. In-store displays, free samples and other promotion inducement to try something new often influence this behavior.

2.4. Major factors influencing buying behavior

Different scholars divided the factors that influence consumer behavior into internal factors or (individual determinants) and, external environmental factors (Khan, 2006; Peter and Olson, 1989). External factors do not affect the decision process directly, but percolate or filter through the individual determinants, to influence the decision process.

These individual and environmental factors can be divided into four broad categories (Khan, 2006; Kotler and Armstrong, 2005). These are:

- 1) **Cultural**; culture, Subculture social class
- 2) **Social**; reference group, family and roles and status
- 3) **Personal**; age and life cycle, Occupation, economic circumstance, lifestyle, personality and self concept
- 4) **Psychological**; motivation, perception, learning, and beliefs and attitudes

These factors cause consumers to develop product and brand preferences. Although many of these factors cannot be directly controlled by marketers, understanding of these factors is important.

2.3.1. Cultural factors

Cultural factors exert the broadest and deepest influence on consumer behavior. The role played by the buyer's culture, subculture, and social class are presented as follows.

Culture: Culture is the most fundamental determinant of a person's wants and behavior. The growing child acquires a set of values, perceptions, preferences, and behavior through his or her family and other key institutions. According to Schiffman and Kanuk (1997), culture has more powerful to influence consumer behavior, lifestyle, motivation and purchase decision. Winsted (1997) indicated that the way to use of consumer and evaluate to product or service are influenced by culture. Therefore, the different of consumer needs determine that lead to market to focus on influence of culture.

Subculture: Each culture consists of smaller subcultures that provide more specific identification for its members. Subcultures include nationalities, religions, racial groups, and geographical regions.

Social class: Virtually all societies exhibit social stratification. Stratification sometimes takes the form of a castes are reared for certain roles and cannot change their caste membership. Social classes are defined as groups more or less homogenous and ranked

against each other according to a form of social hierarchy. Even if it s very large groups, we usually find similar values, lifestyles, interests and behaviors in individuals belonging to the same social class.

Peter and Olson (1989) stated that in a social class groups and individuals are distinguished in terms of esteem and prestige and identification with each class is influenced most strongly by one's level of education and occupation (income as a measure of work success). However, social class is a composite of many personal and social attributes rather than single characteristics such as income or education. The consumers buying behavior is different according social class because they associate brand of products or services with specific social classes (Engle et'al., 1993). A consumer from the lower class will be more focused on price while a shopper from the upper class will be more attracted to elements such as quality, innovation, features, or even the social benefit that he can obtain from the product (Schiffman and Kanuk, 1991).

2.3.2. Social Factors

In addition to cultural factors, a consumer's behavior is influenced by such social factors as (reference groups, aspiration groups and member groups), family, roles and status. This explains the outside influences of others on our purchase decisions either directly or indirectly. Social factors are among the factors influencing consumer behavior significantly. They fall into three categories: reference groups, family and social roles and status.

2.3.2.1. Reference groups

A person's reference groups consist of all the groups that have a direct (Face-to face) or indirect influence on the person's attitudes or behavior. Groups having a direct influence on a person are called Membership Groups. Reference groups are people, including opinion leaders in the social environment who are salient or relevant to a person and who influence those individuals' cognitions (Peter and Olson, 1989). Similarly Khan (2006) defines reference group is a small group of people consisting of family ,close friends, work groups, neighbors', or any other group of people a consumer associate with and

refer to while making buying decisions, helps a consumer to choose a product by building aspirations .

Reference groups and family are aspects of the micro social environment for consumers. These groups regulate the lives and set standards for norms and conduct. According to Peter and Olson (2010) the interactions of the consumers with reference groups and family is often direct and face to face, wants to be look like its members, will buy the same products. For instance, even if he does not need it yet, a surfing beginner may want to buy advanced brands or products used by experienced surfs in order to get a closer to this group which can have immediate influences on consumers' cognitive, affective, and behavioral responses to marketing strategies. According to Peter and Olson (1989) the degree of influence of the reference groups vary on the type of products and brands, purchase situation and individual. The impact of reference groups varies across products and brands. For example if the product is visible such as dress, shoes, car etc then the influence of reference groups will be high. The purchase decision of products such as mobile phones, which are used publicly, is strongly influenced by the consumer's reference groups (Bearden & Etzel, 1982). Therefore the influence of reference group on individual behavior is often manifested in the types of products and brands purchased by individuals. Referents with high credibility, such as those having presumed expertise, will often serve as source of information-based influence for uncertain and uninformed consumers, utilitarian influence will be reflected in attempts to comply with wishes of a reference group to avoid punishment or receive reward, while value expressive influence will be reflected in the need for psychological affiliation with the reference group (Deutsch and Gerard, 1955).

2.3.2.2. Family

The family is the most influencing factor for an individual. It forms an environment of socialization in which an individual will evolve, shape his personality, and acquire values. Buyer behavior is strongly influenced by the member of a family. According to Engle et'al. (1993) purchases might be made by an individual but the buying decision is influenced by other members of the family for reasons such as financial dependence of the

individual and the allocation of the family income decisions. Therefore, marketers are trying to find the roles and influence of the husband, wife and children. According to Khan (2006), the bonds in a family are more powerful than in other groups and all purchases are influenced by family members. As Khan (2006) points out, in a family reciprocal influence operates, which means every member is influenced and influences other family members. Father, mother and other family members influence each other in a purchasing decision.

2.3.2.3. Roles and statuses:

A person participates in many groups throughout life-family, clubs, and organizations. The person's position in each group can be defined in terms of role and status. Every individual in the society does have different roles and status depending upon the position and relation that he or she holds in different groups, organizations or clubs. For example, a man employed as a manager of a company could have several roles in several groups. With his family, he plays the role of son, husband or father; in his company, he plays the role of manager. Therefore, he holds an exclusive role in different groups where he is supposed to perform certain activities depending upon the people around him. Each role affects his buying behavior during the decision making process. The role that he carries in various groups reflects the general esteem given to it by the society i.e. status. Status is another factor that he should take care before buying something. As a manager he has more status in the society than the role of a husband or a father. Therefore, he should choose the product that shows his status in society (Kotler *et al*, 2008).

2.3.3. Personal factors

It includes such variables as age and lifecycle stage, occupation, economic circumstances, lifestyle (activities, interests, opinions and demographics), personality and self concept. These may explain why our preferences often change as our 'situation' changes. Decisions and buying behavior are obviously also influenced by the characteristics of each consumer. Each individual processes the information received in different ways and evaluates the products in his own personal way. His own personality ultimately influences his decision.

Some individuals may lay greater emphasis on price, others on quality, still others on status, symbol, convenience of the product, etc. (Khan, 2006).

Age and stage in the life cycle: people buy different goods and services over their lifetime. Marketers often choose life-cycle groups as their target market. Some recent work has identified psychological life-cycle stages.

Occupation: A person's occupation also influences his or her consumption pattern. Marketers try to identify the occupational groups that have above-average interest in their products and services.

Economic Circumstances: Product choice is greatly affected by one's economic circumstances. People's economic circumstances consist of their spendable income (its level stability, and time pattern), savings and assets (including the percentage that is liquid), debts, borrowing power, and attitude towards spending versus saving. The buying tendency of a buyer is always directly related to the economic situation or income of a buyer. Any individual who have higher level of disposable income will buy expensive and premium products than compared to people having middle or lower level income. What an individual buys depict the economic situation of that particular person. For example; a person who has high income could afford and decide to buy the luxury items but a person who has lower income would buy grocery items rather than thinking to buy luxury items. Therefore, economic situation is an important factor that affects the purchasing decision of a buyer. Economic situation is the purchasing power of a consumer which has positive relationship with his/her personal spending.

Lifestyle: People coming from the same subculture, social class, and occupation may lead quite different lifestyles. A person's lifestyle is the person's pattern of living in the world as expressed in the person's activities, interests, and opinions lifestyle portrays the "whole person" interacting with his or her environment.

Personality and self-concept: Each person has a distinct personality that influences his or her purchasing behavior. By personality, we mean a person's distinguishing psychological

characteristics that lead to relatively consistent and enduring responses to his or her environment

2.3.4. Psychological Factors

A person's purchasing choices are influenced by four major psychological factors; motivation, perception, learning, and beliefs and attitudes.

Motivation: A person has many needs at any given time. Some needs are biogenic; they arise from physiological states of tension such as hunger, thirst, discomfort. Other needs are psychogenic; they arise from psychological states of tension such as the need for recognition, esteem, or belonging. Most psychogenic needs are not intense enough to motivate the person to act on them immediately. A need becomes a motive when it is aroused to a sufficient level of intensity.

Perception: A motivated person is ready to act. How the motivated person actually acts is influenced by his or her perception of the situation. Perception is the process by which an individual selects, organizes, and interprets information inputs to create a meaningful picture of the world.

Learning: learning involves changes in an individual's behavior arising from experience. Most human behavior is learned. Learning theorists believe that learning is produced through the interplay of drives, stimuli, cues, responses, and reinforcement.

Beliefs and attitudes: Through doing and learning, people acquire beliefs and attitudes. These in turn influence their purchasing behavior. A belief is a descriptive thought that a person holds about something. Attitude is a person's enduring favorable or unfavorable evaluations, emotional feelings, and action tendencies towards some object or idea.

2.5. Marketing Mix

Peter and Olson (1994) stated that the marketing mix consists of product, price, promotion, and channels of distribution. These are the primary elements marketing managers can control to serve consumers. The aim is to develop a consistent mix where all elements work together to serve the target market or markets the company has selected. Etzel et al.

(2001) defined marketing mix as the combination of a product, how it is distributed and promoted, and its price. Together, these four components of strategy must satisfy the needs of the target market(s), and, at the same time, achieve the organization's marketing objectives.

Kinnear et al. (1995) referred that the activities about which the marketing manager must make decisions fall into four general categories: product, price, place (distribution) and promotion, often referred to as the four Ps. These categories are controllable variables because they represent areas in which the marketing manager is in control of the decision. The activities encompasses in the four Ps are further referred to as the marketing mix.

Etzel et al. (2001) quoted that each marketing-mix element contains countless alternatives. For instance, a producer may make and market one product or many, and the products may be related or unrelated to each other. They may be distributed through wholesalers, to retailers without the benefit of wholesalers, or even directly to final customers, ultimately from the multitude of alternatives, management must select a combination of elements that will satisfy target markets and achieve organizational and marketing goals.

2.4.1. Product

Product is the starting point in creating a marketing mix. A product is anything that can be offered to market for attention, acquisition, use, or consumption and that might satisfy a want or a need. Product includes physical objects, services, persons, places, organizations and ideas (Kotler and Armstrong, 1999). Assal (1993) stated that product represents the product features, the package, the brand name, and post-sales service support. Etzel et al. (2001) challenged that strategies are needed for deciding what products to offer, managing existing products over time, and dropping failed products. Strategic decisions must also be made regarding branding, packing, and other product features such as warranties. A study in Pakistan by Najmi et al. (2014) showed that product's warranty has a significant impact on preferences towards brand.

2.4.1.1. Product attributes

Consumer value attributes since they are used as the basis for evaluating a product. Attributes also offer the benefits that consumers look for purchasing a product. Product attributes provide a basis through which marketers distinguish and set its product (brand) apart from that of the competitors based on a specific attributes or often several attributes or product benefits (Belch & Belch, 1995). Attributes are furthermore used by the marketer as the basis for developing new products and for specific positioning strategies. Product attribute performs a major role in determining the brands that consumers will consider and give serious attention when making a purchase decision (Kotler, 2000, 2002). By understanding accurately how consumer make purchase decisions and what they value in products and services, companies can work out optimum level of attributes that balance customer value expectation as a benchmark for resources allocation, costing and pricing decision (Oyatoye, 2011). Early researchers' views product attributes as the physical properties of a product that were quantitatively and objectively measurable (Wu et al., 1988). However, in more recent years it has expanded to include all evaluative criteria, including objective or physical properties i.e. price, brand name or subjective criteria's such as quality, style, benefit or value (Grapetine, 1995). Aaker (1991) adds that because most product attributes provide consumer benefits, there is usually a one-to-one comparison between brands.

2.4.1.2. Perceived quality

Perceived quality is customers' perception of the overall quality or superiority of a product or service compared to alternatives and with respect to its intended purpose (Keller, 2013). Product quality depends not only on functional product performance but on broader performance considerations as well, like speed, accuracy, and care of product delivery and installation; the promptness, courtesy, and helpfulness of customer service and training; and the quality of repair service. It is an essential characteristic for every brand; perceived quality defines a customer's perception and the product's quality or superiority. The perceived quality provides fundamental reason to purchase. It also influences brand integration and exclusion to consideration set before final selection. A perceived quality provides greater beneficial opportunity of charging a premium price. The premium raises

profit and gives a resource to reinvest in the brand. Perceived quality will enable a strong brand to extend further and will get a greater success possibility than a weak brand.

Perceived quality has a greater influence in a customer's purchasing process and in brand loyalty. This influence is very important when customers are in a condition which makes them unable to make an analysis of the quality. Perceived quality can be used as a helping tool when company intends to utilize a pricing strategy with premium price and further extend a brand in several markets (Aaker, 1991).

2.4.2. Price

Price is the only element of the marketing mixes that produces revenue; the others produce costs. Kotler and Armstrong (1994) stated that price is the sum of the values that consumers exchange for the benefits of having or using the product or service. It is the perceived value of a good or service at the time of the transaction. (Lamb et al., 1994), price is one of the most flexible elements of the marketing mix. Unlike product features and channel commitments, price can be changed quickly. In poorer nations, price has been the major factor affecting buyer choice (Kotler and Armstrong, 1994). Price is the only marketing instrument that does not cost anything, but provides the resources to spend on production and marketing activity.

According to Kotler (2003), no matter how a product is, some people will be unable to pay more than a certain price. Others may be able to afford it but believe that another way of that spending sum of money would give them greater satisfaction. Conversely, simple being cheap is not enough; the product must come up to some level of expected performance. In some situations, (luxury goods), a high price may even make the product more desirable than a lower price. Price is only one of the several costs faced by consumers. Other purchase related costs include the time spent, displacement cost and emotional costs. However, price is the cost that consumer can best determine, and thus plays an important role in their decision.

In retail markets, consumers are value driven, where value is considered a tradeoff among price and value. Price can serve as an indicator of quality for consumers. (Walters and

Bergile, 1989) states that price serves as an indicator of product quality, identifies the good buy and determines the affordability for consumers. Price is the most important criteria consumers' use however there is a variation in the importance as an evaluation criteria across both consumers and products (Engle et al., 1993).

2.4.3. Promotion

Promotion is the component of the marketing mix that communicates information to potential customers. Decision regarding advertising, personal selling, publicity, public relations, and special promotional activities such as trade shows and product displays are part of this quarter of the marketing mix (Kinnear et al., 1995). Promotion refers to the variety of ways marketers communicate with consumers about products to influence their affect, cognitions, and behaviors (Peter and Olson, 1994)

Zikmund and Amico (1996) stated that marketers need to communicate with consumers. Promotion is the means by which marketers "talk to" existing customers and potential buyers. Promotion may convey a message about the organization, a product, or some other element of the marketing mix, such as the new low price being offered during a sale period.

Promotion is the most direct way that marketers communicate with consumers. According to Peter and Olson (1989), the source of a promotion message influences its effectiveness. Source to mean the person involved in communicating a marketing message, either directly or indirectly. The source should be credible, trustworthy, expertise and good image and attractive in order to draw attention of the consumer to the product and associate it (Belch and Belch, 2003). One of the sources is celebrity endorsers. A celebrity endorser is an individual who is known in public in his/her achievement in the areas other than that of the product class endorsed. They enjoy public recognition and a high degree of public awareness. It seems unquestionable that advertising likeability has a considerable persuasive impact on consumer behavior, and in some cases can be the most accurate predictor of advertising effectiveness and sales (Rimoldi, 2008). Using well-known and admired people to promote products is a widespread phenomenon with a long marketing history. Many marketers use celebrity spokespersons to promote their products, and the

celebrity–brand association can be strongly linked in consumers’ minds—for better or for worse. Keller (2013) said that the rationale behind these strategies is that a famous person can draw attention to a brand and shape the perceptions of the brand, by virtue of the inferences that consumers make based on the knowledge they have about the famous person. The hope is that the celebrities’ fans will also become fans of their products or services. By purchasing and using the product endorsed by the celebrity, consumers can obtain some of those meanings and use them in constructing a satisfying self-concept. So advertising by celebrities influences the consumers to purchase a product as confirmed in study conducted by Rashid et al.(2002). But Keller (2013) advises that in order to draw attention to a brand and shape perception, the celebrity must be well enough known to improve awareness, image, and responses for the brand. In particular, a celebrity endorser should have a high level of visibility and a rich set of potentially useful associations, judgments, and feelings. The celebrity endorser he or she would be credible in terms of expertise, trustworthiness, and likability or attractiveness, as well as having specific associations that carry potential product relevance. Furthermore, Rai and Sharma (2013), in their study in India about the celebrity attributes and influence on consumer behavior confirmed that Celebrity Attractiveness, Credibility, Performance, Popularity and Territory significantly influence consumer behavior and credibility of the celebrity has maximum effect on consumer behavior. Zakariya and Jinnah (2014), in their study revealed that credibility of endorsing celebrity matters for the consumer before the endorsed product also the experience of the celebrity with that product usage. Additionally, Belch and Belch (2003) argues that the effectiveness of a celebrity endorser in an ad depends on the receiver’s involvement level. When involvement was low, a celebrity endorser had a significant effect on attitudes. When the receiver’s involvement was high, however, the use of a celebrity had no effect on brand attitudes; the quality of the arguments used in the ad was more important.

2.6. Brand Image and Country of Origin

Quality can sparsely be detected other than through a purchase (or repeated purchase), hence it may be inferred from extrinsic cues, or market signals such as brand name, price, advertising, seller’s reputation or country-of-origin.

The image of the brand is the perception of the brand by consumers. Brand image is defined as consumers' perceptions as reflected by the associations they hold in their minds when they think of your brand. The goal of working strategically with brand image is to ensure that consumers hold strong and favorable associations of the brand in their minds. The brand image typically consists of multiple concepts: perception, because the brand is perceived; cognition, because that brand is cognitively evaluated; and finally attitude, because consumers continuously after perceiving and evaluating what they perceive form attitudes about the brand (Aaker, 2002; Keller, 1993). Most of the time consumers associate a brand name as a sign of quality and a status symbol (Engle et al., 1993). Overall, image can generate value in terms of helping customer to process information, differentiating the brand, generating reasons to buy, give positive feelings, and providing a basis for extensions (Aaker, 1991).

The term country of origin refers to the impact that product manufactured in some specific countries has on consumer purchasing behavior. Over the years, the phenomenon of country of origin (COO) has become known to both marketing academics and practitioners that consumers differentiate products from different origins, as this has effect on them. Among countries underdeveloped, in economically, the choice for domestic products is likely to be weaker (Cordell 1992). In many instances, consumers from the communist countries and central Europe have preference for locally made products (Ettenson 1993).

Several antecedents of country-of-origin image have been identified to explain the differences in country-of-origin evaluations and can be categorized as being either individual-based dimensions or country-based dimensions. Verlegh and Steenkamp (1999) tested two country-based antecedents, namely the country's level of economic development and its participation in multinational production arrangements.

These studies have revealed only the differences in national economic development have an effect on subject's country-of-origin image and product evaluations. As for subject-based antecedents, "consumer ethnocentrism has being distinct by individualism/collectivism, power distance, country stereotyping and the degree of

assimilation of host country stereotypes” which may help to explain differences in country-of-origin evaluations”. (Bamfo, 2012).

Studies have also attempted to determine how consumers process country-of origin information when considering a product. According to Ahmed, Johnson, Yang, Chen, Han and Lim (2004), a consumer’s country-of-origin evaluation is typically processed in one of two ways, as a halo effect or as a summary construct. A halo effect means that the consumer uses her existing feelings towards a country to create an overall image of products from that country. In contrast, the summary construct is developed when the consumer uses her familiarity and evaluation of products from a particular country to generate an overall country-of-origin evaluation. For example, the consumer’s use of country-of-origin information depends on the degree of her familiarity with the product or product category. Consumers who are unfamiliar with the product may use country-of-origin information as a stereotype measure for other product attributes; therefore a positive country-of-origin evaluation will lead to an overall positive evaluation of the product. For consumers familiar with the product category, country-of origin image serves as a heuristic cue for those consumers wishing to process less information in order to make a purchase decision. For example, consumers who consider themselves as knowledgeable in consumer electronics may have an affinity for Japanese electronics in general, based on their positive experiences with specific Japanese electronic components in the past (Strutton and Pelton 1993). Although country-of-origin image is commonly in reference to the location of production, the country associated with the product’s origin may not necessarily be the place of manufacture or assembly of the product. Country of-origin stamps have been legally mandated in foreign trading, raising consumer awareness of the product’s country-of-origin for the past two decades (Strutton and Pelton 1993). As outsourcing and cross-border manufacturing become more prevalent, hybrid and FDI-based product offerings are generating research interest. Some studies have attempted to parse the country-of-origin variable into separate distinct dimensions, such as country-of-manufacture, country-of-assembly, country-of-parts and country-of design, thus producing interesting results from this decomposition of the country of origin concept. For example, country-of-assembly, country-of-parts and country-of design have been demonstrated to have an effect on consumer perceptions of product quality.

In terms of relative strength, country-of parts carries more weight than country-of-assembly or country-of-design in explaining consumer evaluations of the product (Bluemelhuber, Carter and Lambe 2007).

When country-of-origin information is not specified, consumers generally associate the country-of-origin with the country-of-manufacture for that brand or product (Simonin and Ruth 1998). The differences in consumers “process of country-of-origin information may vary according to when they typically adopt new products in relation to the diffusion of innovations”. While innovators and early adopters of new technology tend to be interested in a product’s country-of-manufacture, the majority and laggards (those consumers who adopt a product in the later stages of its product life cycle) are more likely to assess its country-of-brand-origin when evaluating the product.

Similarly, consumer’s perceived country-of-origin is often incorrect and can differ from the actual country of production as a result of imperfect information and misconceptions within the marketplace. Several studies have confirmed that under non experimental conditions, the ability to accurately identify the country-of-origin of North American and Asian brands is universally low for consumers (Simonin and Ruth, 1998). Moreover these authors found evidence that these consumers did not use country of-origin information as often as other types of product information in making purchase decisions. Other informational cues, including product type, store prestige (, product warranty and price have been found to influence country-of-origin evaluation or moderate the effect of country-of-origin image on overall product evaluations.

Another cause of a possible decrease in the relevance of country-of-origin image as a determinant of product evaluation may be due to the preponderance of global branding and cross-national business alliances that have emerged within the last two decades (Ettenson, Wagner and Gaeth 1988),

These international strategies make it even more difficult for consumers to determine which country is associated with the product or brand in question. Depending on the information that is available to the consumers, they seek a degree of fit or congruency among the images of these countries, the brands and/or the products to affect their attitudes

toward this strategic alliance as well as each of the individual companies participating in the alliance (Simonin and Ruth 1998). Another reason for the lack of country-of-origin effects upon purchase decision may be due to the number of product cues available to the consumer. Studies have found that alternative cues, such as price and brand play a more crucial role in predicting customer acceptance of products, suggesting that country-of-origin is more salient to those consumers with less product information (Olsen, Biswas and Granzin 1993). Nevertheless country-of-origin effects continue to be heavily investigated as an important construct in consumer behavior, particularly in ascertaining product judgments.

2.7. Empirical Studies on Factors Influencing Mobile Phone handsets Purchase Decisions of Youth

One common themes running through the research has been to identify factors affecting consumer choice of mobile phones. There are so many empirical studies in other countries about the influence of the different factors consumers on purchasing decisions of mobile phones in general and the different segments of consumers in particular. These studies showed different empirical results about the influence of these variables in different contexts.

A study made by Uddin et'al.(2014) in Bangladeshi, Khulna city about the factors affecting customers buying decision of mobile phone Their result indicates that although price, charging and operating facilities ,size and weight, friends and colleagues recommendations ,neighbors recommendation, and advertising have significant influence ; the most important factor is physical attributes of the mobile phone . According to the study of the university students in India (Narwal, 2014), comparatively product attributes have more influence than reference group influence on purchasing of cell phones Another study which examined the influence of the product feature on purchase decisions of mobile phones on university students by Siddique et'al(2013), found that internet facility, multimedia, long lasting battery, camera, brand recognition, performance and color of mobile handset mostly persuade purchasing decision and external memory capacities,

warranty period, price, customer-care service, phone memory capacities have some influence on purchasing decisions.

Prempeh et'al (2013), a study conducted in Ghana on marketing students in Sunyani Polytechnic, identified durability is the most important feature in mobile phone selection. Their study shows that eight factors characterized mobile phone choice. The respondents put the order of the eight importance features in their mobile phone selection: durability, performance, features of the phone, style, and ease of use, upgrade, personalization and cost. As indicated in their study cost is also has a significant influence in mobile phone selection. Mokhlis and Yaakop (2012) identified innovative feature, recommendation and price respectively are the top three most important factors influencing Malaysian university students' choice of mobile phones. Accordingly they concluded that innovative features are the most important that is why mobile phones which have now been widely accepted as part of fashion accessories, especially among the youngsters. In addition to these their conclusion shows that university students are vulnerable to financial shortage as a result they cannot spend much money on mobile phones. According to Karjaluoto *et al.* (2005), price, brand, interface, and properties tends to have the most influential factors affecting the actual choice amongst mobile phone brands. Ling et'al. (2007) surveyed college students to identify their preference of their current mobile phone. The results of their survey indicated that the physical appearance, size and menu organization of the mobile phones are the most determinant factors affecting the choice of mobile phones. In today marketing environment, price and quality of product is central issue, but not only in consumer decision making process and the outcomes of their overall satisfaction but decision making and marketing strategy of the producer. The concept of quality take a particularly special emphasis when there is juxtapose against price that consumer is able to pay. Alfred (2013) in his study in Ghana consumers confirmed the influence of price and quality on purchases decision. Similarly, Juwaheer et'al. (2013) identified in their study that price is the most important factor for young in the selection of mobile phones in Mauritius although the other factors such as branding, pricing, mobile phone features, lifestyle have a significant influence.

2.8. Conceptual Frame work of the Study

Ultimately, by reviewing diverse factors that affect purchasing decision of mobile phone handsets the possible actual factors that may influence youth university students to choice of mobile phone have been established as of Figure 2.3 below. The frame work consists of one dependent variable (brand choice decisions for purchase of mobile phones) and 11 independent variables (price , quality , brand image, country of origin, after sales service, celebrity endorsement, friends and family recommendations, stylish appearance, innovative features, effective promotions) that affect the brand choice for mobile phone purchase decisions.

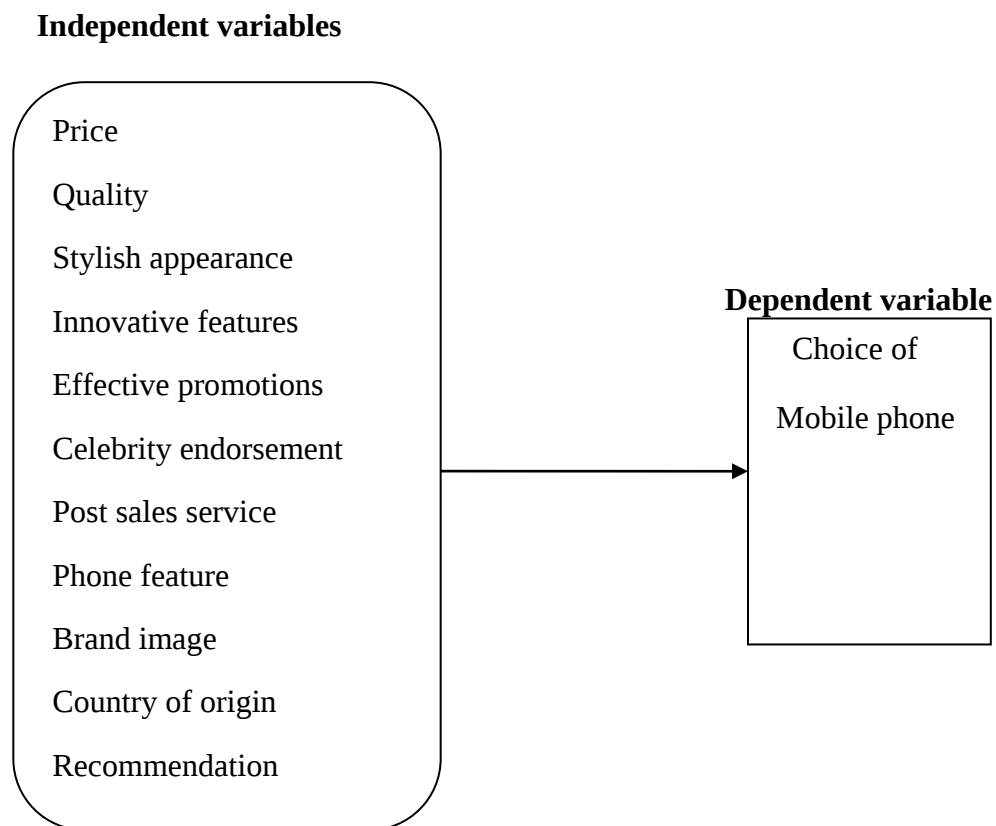


Figure 2.3: conceptual framework of the study
Source: constructed by the researcher, 2015

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter presented approach, research design, describes the research methods, sampling techniques and the instruments employed in the data gathering, collection procedures and analysis methods.

3.2. Research Type, Design and Approach

There are many ways to carry out research. Most types of research can be classified according to how much the researcher knows about the problem before starting the investigation. According to Yin (1994) there are three classifications of research available when dealing with research problem: exploratory, descriptive, or explanatory.

According to Saunders et al. (2003), explanatory studies are studies with the emphasis to study a situation or problem in order to explain the cause and effect relationship between given variables. In order to accomplish that well defined research problem has to be done and hypotheses need to be stated. Explanatory research is mostly used within areas where extensive research has already been done .In line with this reasoning and purpose of the research the current study is explanatory type.

The use of quantitative approach for this study is judged completely appropriate. According to Adams et'al. (2007) quantitative research refers to the type of research that is based on the methodological principles of positivism and neo positivism, and adheres to the standards of a strict research design developed prior to the actual research. This type of research approach employ strategies of inquiry such as experiments and surveys, and collects information using preset standardized instruments that can generate relevant statistical data. The strategy for this research can be classified as positivism because of some main reasons. First, it deals with reality which is governed by natural laws. This research is focused on the factors which influence brand choice for the purchase of mobile phones.

This can literally be described as reality, influenced by laws derived from nature apart from laws established by human authorities. Second, the reality is explored by empirical research and a survey study. This will consist of designing and administering the questionnaire, constructing the sampling strategy and analyzing the results. In this regard, the researcher used responses obtained from the selected respondents through survey questionnaires and analyzed using statistics because its objective is to understand the influence of the different decision factors on youth's mobile phone purchase decisions that are existed in the literature and are tested in different countries and contexts. Third, the research consists of hypotheses that can be regarded as facts and to be tested by a survey study (quantitative data). Finally, the researcher is objective and independent from the subject.

Saunders et al (2012, p. 162) stated that “quantitative research is usually associated with a deductive approach as well as with positivism, where the focus is on using data to test theory. The deductive concept illustrates the research process of this study, where existing theory is presented in the literature review, forming the basis for the research objectives which is tested empirically in the youth context. The main characteristic of a deductive approach is that the researcher develops a theory and one or more hypothesis/ hypotheses. The researcher starts from the hypothesis/hypotheses that is/are developed on the basis of general principles.

3.3. Target Population and Sampling Design

3.3.1. Defining the Population

The target population was the young who currently own a mobile phone and are responsible for in the selection and purchase of their mobile phone handsets. From this target population, the accessible populations for this research were both private and public university regular undergraduate students in Addis Ababa.

3.3.2. Sample Selection Method

There are several ways in which potential participants can be selected for inclusion in a research study, and the manner in which participants are selected is determined by several

factors, including the research question being investigated, the research design being used, and the availability of appropriate numbers and types of study participants (Geoffrey, p. 52, 2005). It is typically not practical to include every member of the population of interest in a research study. Time, money, and resources are three limiting factors that make this unlikely. Therefore, most researchers are forced to study a representative subset of the population of interest (Geoffrey et'al., 2005). In this study, the respondents were targeted on the basis of convenience through non-probability sampling. Questionnaires were handled out to public and private university undergraduate students in Addis Ababa who is voluntary to fill the questionnaire.

3.3.3. Sample Size

It is not possible to include all the participants in a study because of different constraints like time and resource. So determining sample size is a must. It is advisable to use a fairly large sample in order to obtain results which are representative of the population and sample size should meet the statistical requirements of a particular statistical analysis that the researcher wishes to conduct.

There is no single rule that can be used to determine sample size. According to Kumar (2006), descriptive research typically uses larger samples; it is sometimes suggested that one should select 10-20 percent of the accessible population for the sample. Gorard (2003: 62) suggests that if a phenomenon contains a lot of potential variability then this will increase the sample size. According to Sekaran (2009) sample size between 300-500 is already adequate for most of the research. Additionally, according to the views of Dillman (2000) and Hill et al. (2003), who reported that a sample size of 100 and above is sufficient to present good concise research findings and also, provide good representation of the population or organization or any subject investigated.

The sample size for the study is determined by using confidence interval approach. Furthermore, 95% confidence level is applied.

Sample size was calculated by using the following formula (Burns and Bush, 1995);

$$n = \frac{z^2 O^2}{e^2}$$

Where n = the sample size
z = the confidential level at 95% (z=1.96)
O = standard deviation (O = 0.5)

e = acceptable sample error at 5% (e= 0.5)
Therefore,
 $n = \frac{(1.96)^2 (0.5)^2}{(0.05)^2}$
n = **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. However, 400 sets of questionnaires were distributed because 0.04% non- response rate was expected. But there was no non-response. As a result, the 400 questionnaires are collected.

3.4. Sources of Data

There are two major approaches (primary and secondary data) to gather data about a situation, person, or problem. Sometimes information required is already available and need only be extracted. However, there are times when the information must be collected. For this study, primary data were collected from both public and private university regular undergraduate students in Addis Ababa through structured questionnaire.

3.5. Development of Questionnaire

The questionnaire was contained fixed-alternative questions that require the respondent to select from a predetermined set of answers to every question to choose the response most accurate to the respondents' perspective. Before developing a final questionnaire pilot study with participants was made in a random selection method. The purpose of a pre-test questionnaire is to examine whether or not the instructions, the statements, and the questions are clear. So based on the result of the pilot test corrections were be made if there are unclear words & statements in the questionnaire.

The questionnaire employed five point likert scale technique. Respondents were required to rate the importance of the factors in their brand choice to purchase mobile phones

ranging from (Point 1) not at all important to (Point 5) extremely important. The first section of the questionnaire contains demographic variables and personal information of the respondents. The second section of the questionnaire attempted to understand the factors influencing consumers purchasing decision of mobile phones which covers the independent variables. It consists questions on price, quality, social factors, features, style and physical appearance; brand image, innovative features, promotion, celebrity endorsers, country of origin, family and friends, and post- purchase services. The questions related to the preference of mobile brand and the features also included in this section. Items that uses in this section were be taken and edited from supporting journals and literatures.

3.6. Validity and Reliability

There are two major criteria which applied to evaluate the quality of the study. These are validity and reliability.

Validity can be assessed using theoretical or empirical approaches. Theoretical assessment of validity focuses on how well the idea of a theoretical construct is translated into or represented in an operational measure (Anol, 2012). In this regard the validity of the current study was addressed through the review of related literatures and adapting instruments used in previous research.

Reliability refers to the absence of random error, enabling subsequent researchers to arrive at the same insights if they conducted the study along the same steps again (Yin, R. K. (2003).To increase the reliability of the survey, five-scale system (Likert scale) questionnaires had been used. The reliability in such scale is higher compared to a two-scale system. Five is an effective choice since the reliability decreases if the number of response options is greater than five (Hayes, 1992).

Additionally, cronbach's alpha was used to test the internal consistency of a construct. In this study, a cronbach's alpha value was found to be 0.605 (see reliability statics table in the appendix). As Wu & Wang (2005), values that have been used in the literature as acceptable Cronbach's alpha range from 0.6 and above. Hence, when Cronbach Coefficient

Alpha produced the value 0.60 to 1, it shows that the level of the instrument is good and suitable to be used. While Cronbach Alpha too low at the value below 0.60, it shows that the instrument is having low reliability and the instrument should be improved. Therefore, scale reliability value for this study is substantial considering the fact that the highest reliability that can be obtained is 1 and this is an indication that the items in the questionnaire are accepted for further analysis.

3.7. Data Collection Procedure

Structured questionnaire was distributed to those public and private university students in Addis Ababa. The researcher asked permission from the students and requested to fill the questionnaire by explaining the purpose of the survey. The questionnaires were filled in front of researcher himself.

3.8. Data Analysis Method

Descriptive statistics like frequencies and mean and multinomial logistic regression were used to analyze the collected data. The analysis was done by statistical package for social sciences (SPSS) version 21.

3.8.1. Multinomial Logistic Regression

Consumer decision making process for a product is usually guided by already formed preferences for a particular alternative (Moorthy et al., 1997). A consumer's choice for a product, which is a bundle of attributes, is based on maximizing satisfaction subject to his budget constraints. This choice depends on whether the consumer is satisfied or dissatisfied with the product purchased. The multinomial logit model is useful for analyzing the effects of independent variables on a finite number of choices and has been used extensively in recent consumer decision studies (Schupp, Gillespie, and Reed; Caffey and Kazmierczak; Luzar et al.; Moutou and Brester; Zepeda).

This study used the multinomial logit model to analyze the factors affecting youth brand choice in mobile phone purchase decision. A logistic regression was found to be the most suitable regression model due to the nature of the outcome variable and the lenient

assumptions the model makes unlike other regression models. In logistic regression, outcome variable is either binary or dichotomous. Over the past years, when the case is that dependent variable is discrete, having two or more possible values, logistic regression model has become the typical method of analysis (Hosmer and Lemeshow, 2000:1). With regard to assumptions, multinomial logistic regression model does not make any assumptions concerning normality, linearity, and homogeneity of variance for the independent variables unlike multiple regression and discriminant analysis (Meyers, Gamst and Guarino, 2006). Hence, it is a more preferable method of analysis, as there are no such requirements impose.

A logistic regression model is a class of regression where the outcome variable can be binary or dichotomous and the independent variables are continuous variables, categorical variables or both. In cases where there exists a dependent categorical variable that has two values such as 'chosen' and 'not chosen' rather than continuous, this is referred to as a binary probit model.

However, where a dependent categorical variable has more than two cases, multinomial logistic regression as a general extension of the binomial choice is the most appropriate approach to use (Akinci et'al, 2007). The multinomial logit model can be considered as 'simultaneous estimation of binary logistic regressions for all possible comparisons among the outcome categories' (Allaway, Gooner, Bekowitz and Davis 2006, p. 1331). As a tool of analysis, a logit regression model allows the researcher to predict a discrete outcome such as group membership from a set of variables for each case, to determine the percent of variance in the dependent variable explained by the independent variables; and to rank the relative importance of independents as in a rank ordered logit model (Tabnchnick and Fidell 2007).

The multinomial logit model is used to model relationships between a polytomous (more than two) response variable and a set of regressor variables where the dependent variable in question consists of a set number (more than two) of categories which can be ordered in a meaningful way.

The basic framework for analysis is provided by the random utility model where consumers are assumed to choose among a range of discrete number of alternatives to maximize their utility. Random utility theory states that a consumer's utility can be decomposed into a systematic and random component of utility. That is, total utility is the sum of observable and unobservable components, U_{ij} (choice j for individual i) = $V_{ij} + e_{ij}$. The utility level U_{ij} , which is individual i 's utility from choosing alternative j , is determined by the systematic component of utility of V_{ij} and random components, e_{ij} , which is assumed to be independently and identically distributed with type I extreme value (Gumbel) distribution (Greene, 2003). The random component represents the unknown components the consumers' utility function. Consumer i chooses alternative j if $U_{ij} > U_{ik}$ for all $k \neq j$. The probability of individual i choosing alternative j is equal to the probability that the utility of alternative j is greater than the utilities of all other alternatives in the choice set (Greene 2003).

Logistic regression (multinomial logit in particular) has been used extensively for categorical dependent variables in the marketing literature for modeling consumer choice (McFadden 1974). Logistic regression applications for marketing have emerged in the areas of consumer based studies encompassing the decision making process and business based studies dealing with a broad range of marketing topics (Akini et al. 2007). In a typical application, as a multivariate analysis, MLR is a very useful analysis technique for the modeling and discrimination problems in marketing, since it has alternative distribution assumptions; it generates more appropriate and correct findings in terms of model fit and the correctness of analysis (Fornell and Bookstein 1982). The multinomial logit model is the most commonly applied model to explain and forecast discrete choices due to its ease of estimation and foundation in utility theory

There are two outputs related to the statistical significance of individual prediction variables in multinomial logistic regression: the likelihood ratio test and parameter estimates. The likelihood ratio tests indicate the contribution of the variable to the overall relationship between the dependent variable and the individual independent variables. The parameter estimates focus on the role of each independent variable in differentiating between the groups specified by the dependent variable. The likelihood ratio tests are a

hypothesis test that the variable contributes to the reduction in error measure to the -2 log likelihood statistics.

Measures Analogous to R²

The R² indicates the strength of the relationship between the dependent variable and the independent variable, analogous to the R² measures in multiple regressions. The Cox and Snell measure operates R², with higher values indicating greater model fit. However, this measure is limited in that it cannot reach the maximum value of 1, so Nagelkerke (1991) proposed a modification that had a range from 0 to 1. In this study Nagelkerke's measure indicating the strength of the relationship was used.

Odds Ratio (Direction of relationship and contribution to a dependent variable) An interpretation of the logit coefficient which is usually more intuitive (especially for dummy independent variables) is the "odds ratio" $\exp(\beta)$ which is the effect of the independent variable on the odds ratio. In other words, the odds ratio is the probability of the event divided by the probability of the nonevent. For example, if $\exp(3) = \exp(\beta)$, then a one unit change in X₃ would make the event twice as likely (.67/.33) to occur. Odds ratios equal to 1 mean that there is a 50/50 chance that the event will occur with a small change in the independent variable

Negative coefficients lead to odds ratios of less than one: if, then a one unit change in X₂ leads to the event being less likely (.40/.60) to occur. Odds ratios less than 1 (negative coefficients) tend to be harder to interpret than odds ratios greater than one (positive coefficients). Note that odds ratios for continuous independent variables tend to be close to one, but this does not suggest that the coefficients are insignificant.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

This chapter presents, analyzes and interprets data obtained from 400 university students in Addis Ababa. The statistical analyses of data in both the descriptive and inferential aspects were carried out using SPSS version 21. Summary statistics tables and bar graphs were employed. Multinomial logistic regression was conducted to find the significant factors influencing mobile phone handset purchasing decisions.

4.2. Descriptive Statistics Analysis

4.2.1. Analysis of Socio-economic Profile of Respondents

The general demographic profile of the respondents reveals that both males and females were included in the study. Their age range is between 18 to 25 years old

As indicated in the Table 4.1 next page, the price range of the current handset brand of the respondents showed that the highest percentage (41.8%) of mobile phone handset of respondents was between the ranges 2000 -3000 birr and 139(34.8%) respondents had mobile phone handset brands within the range of 1501-2000 birr. While 12.5% of participants in the study owned mobile phone handsets within the range of 3001-5000 birr. 28(7%) 1001-1500 birr, Those having the mobile phone handset above 3.8% above 5000 birr accounts 3.8% and the remaining 0.3% have phone handsets between the price range of 501-1000 birr.

Table 4. 1. Demographic and Socio Economic Profile of Respondents

		Frequency	%	Cumulative Percent
Gender of respondents	male	258	64.5	64.5
	female	142	35.5	35.5
	Total	400	100.0	100
Monthly income of family of the respondent	1000-5000 birr	26	6.5	6.5
	5001-10000 birr	163	40.8	47.3
	10001-15000 birr	169	42.3	89.5
	15001-20000 birr	38	9.5	99.0
	above 20000 birr	4	1.0	100.0
	Total	400	100.0	100
Current mobile phone price range of respondents	501-1000 birr	1	.3	.3
	1001-1500 birr	28	7.0	7.3
	1501-2000 birr	139	34.8	42.0
	2001-3000 birr	167	41.8	83.8
	3001-5000 birr	50	12.5	96.3
	above 5000 birr	15	3.8	100.0
	Total	400	100.0	100

Source: Survey result, 2015

4.2.2. Current and Future Mobile Phone Brand of Respondents

Respondents were asked about the brand of mobile phone handset, which they owned at that time, their responses indicated that SAMSUNG is used by the majority of consumers with a 43.8% usage rate. HUAWEI with 20.8 % is at the second number in terms of its usage among youths. NOKIA, TECHNO and SMADLE took the next order respectively with a usage rate of 16 %, 9.8% and 6%. Other mobile phone handsets received a usage of 3.4 % as shown below in the figure. When we see the future mobile phone handset brand of the respondents most of them want to change to HUAWEI brand (refer figure 4.1 next page).

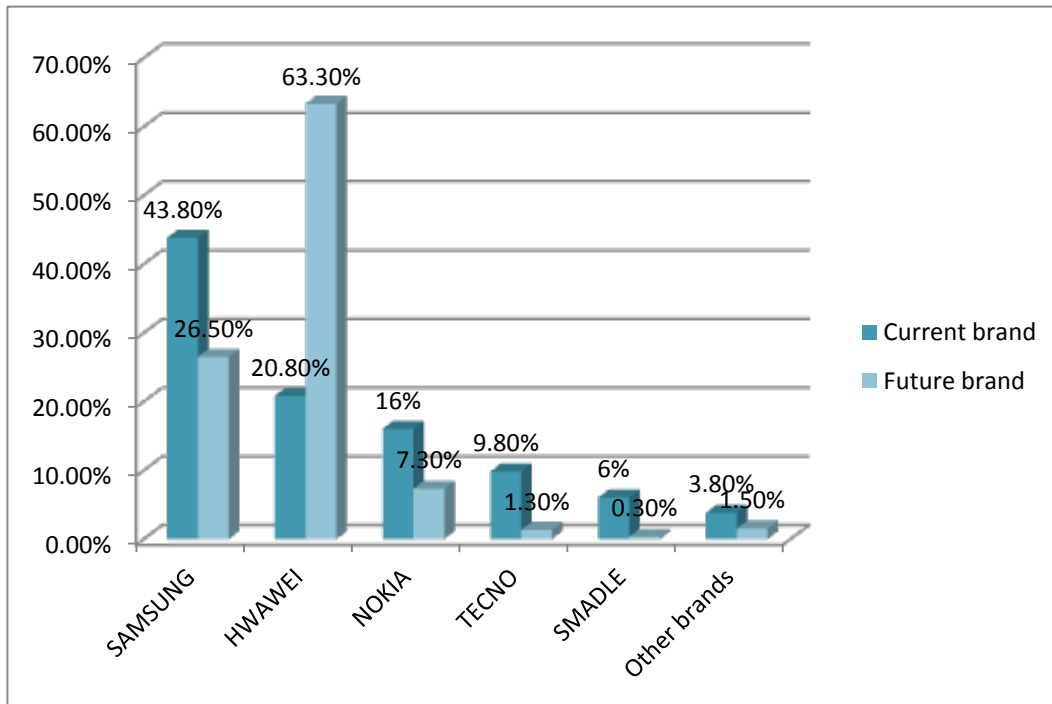


Figure 4.1: Current and Future Mobile Phone Handset Brand of Respondents
Source: Survey result, 2015

4.2.3. Factors Affecting Mobile Phone Handsets Brand Choice

Data was analyzed using Mean Scores and Standard Deviations (Std. Dev.). Mean Scores were used to determine the extent to which the respondents considered each of the factors important in their choice of a mobile phone handset brand based on a five point Likert-type scale ranging from “extremely important” (5) to “not at all important” (1).

Standard deviations were used to assess the relative importance of the pertinent factors. As shown below in the Table 4.2 the relative importance of these factors does not significantly differ among the respondents in the choice of mobile phone brands as reflected in the standard deviation of less than one (Std. Dev<1.0).

Table 4. 2: Factors Affecting the Choice of Mobile Phone Handset Brand

Determinants	Minimum	Maximum	Mean	Std. Deviation
mobile phone feature	2	5	4.78	.578
price of the mobile phone	2	5	4.59	.585
quality of the brand	1	5	4.53	.752
innovative feature of the brand	2	5	4.37	.735
recommendations of family and friends	1	5	3.38	.956
effective promotion of the brand	1	5	2.70	.910
stylish appearance of the mobile phone	1	5	2.31	.960
image of the brand	1	5	2.25	.783
country of origin of the brand	1	5	1.78	.781
post sales service	1	5	1.57	.801
celebrity endorsement of the brand	1	3	1.22	.475

Source: Survey result, 2015

As it is indicated in the Table 4.2, four are main factors influencing the purchase behavior of respondents. These most four important factors are phone feature, price, quality and innovative features with mean value of 4.78, 4.59, 4.53 and 4.37 respectively. The least factor influencing brand choice with a mean value of 1.22 is celebrity endorsement of the brand.

4.2.4. Youth's Choice for Mobile Phone Handset Features

About the features youths consider in the purchase of mobile phone handset all are important (see Figure 4.2 next page).

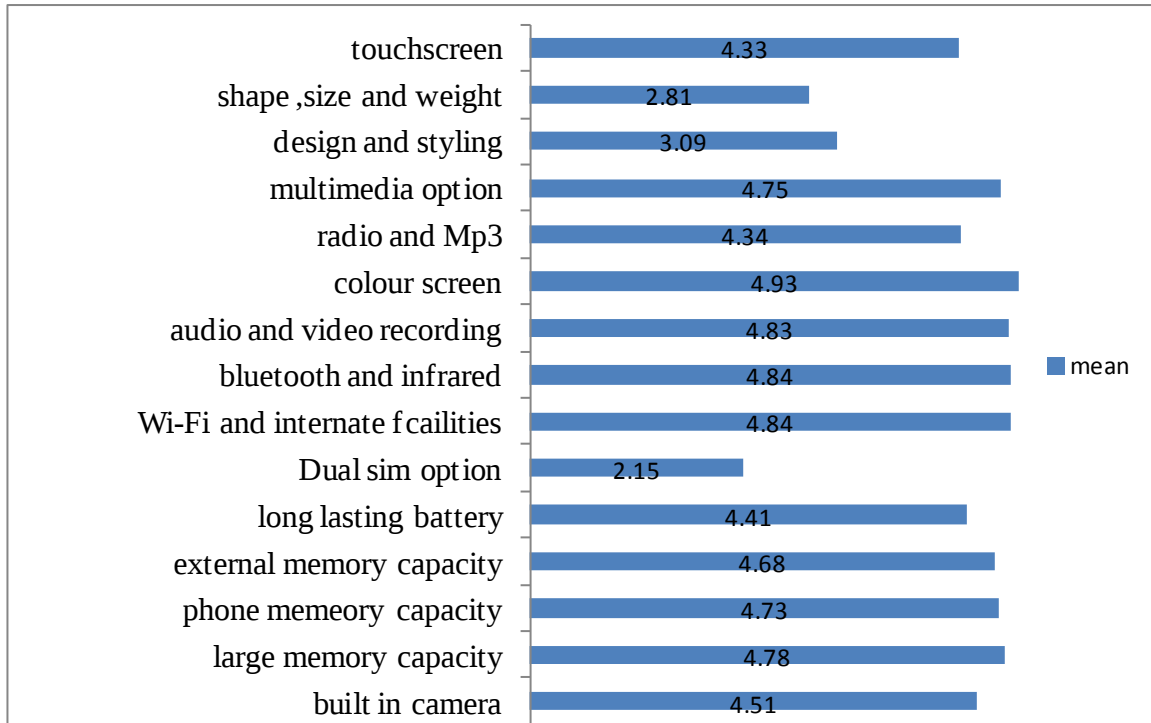


Figure 4.2: Respondents' preference of mobile phone handset features

Source: Survey result, 2015

As shown above, almost all of the features are extremely important to choose a mobile phone handset. The less important features for mobile phone handsets are style; dual SIM using option and size of handsets with mean score of 2.51, 2.83 and 3.3 respectively. The results revealed that students consider all the factors are important when they purchase mobile phone handset.

4.3. The Multinomial Logistic Regression Analysis

To study customer brand choice behavior drivers to test the relationship between multiple independent variables and categorical dependent. Multinomial logistic regression was used. As confirmed by Fader et al. (1992), many researcher in marketing area have turned to the Multinomial Logistic Regression (MLR) technique in studying different behavioral and psychological phenomena, especially those involving multiple alternative such as brand choice behavior (Erdem et al., 2004). MLR is used in this research to analyses relationship between a non-metric independent variable and many dichotomous categories dependent variables.

4.3.1. Case-to-Variable Ratio

In order to fulfill the sample size requirement of the model, Hosmer and Lemeshow (2000:347) defines a ratio called case-to-variable ratio. According to the authors, this ratio, which is the minimum number of cases per independent variable, is set to 10. In this research, total number of independent variables, including both metric and non-metric, is 11; while total number of valid cases is 399. These figures give a ratio of approximately 36.27 (399/11), which is greater than the minimum case-to-variable ratio of 10.

4.3.2. Overall Test of Relationship

The logistic regression compares the final model that contains all the independent variables with a model that does not contain any independent variables in order to test the overall relationship among the independent variables and the groups defined by the dependent variable (brands chosen by respondents). The difference in the likelihood values of the two models follows a chi-square distribution and the significance test for the final model chi-square is used to probe the presence of a relationship between the dependent variable and the combination of the independent variables. Consequently, with a 95% confidence interval, a significance level less than or equal to 0.05 indicates a presence of a relationship (Schwab, 2006). Table 4.3 below is an SPSS output, named 'Model Fitting Information', presenting the value of final model chi-square.

Table 4. 3: Model Fitting Criteria

Model		Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	1183.756			
Final	768.660	415.095	55	.000

Source: Survey result, 2015

In Full model analysis, the probability of the model chi square should be less than or equal to the level of significance of 0.05 to reject the null hypothesis that there was no difference between the model without independent variables and the model with independent variables. As evidenced in the above Table 4.3, the Final Log Likelihood value (-2Log Likelihood) decreases and the significant value of chi-square is 0.000 i.e. less than 0.05.

So, the null hypothesis that there is no significant difference between the model without independent variables and the model with independent variables is rejected. The existence of a relationship between the independent variables and the dependent variable is maintained, hence accepting the alternative (H_a) hypothesis.

4.3.3. Model Accuracy

In order to assess the predictability of the multinomial logistic regression model, classification accuracy, which determines whether derived model correctly classifies each group of the dependent variable, was used. 25% improvement rate over the accuracy achievable by chance alone was used as a benchmark. Although the independent variables had no relationship to the groups defined by the dependent variable, group memberships are expected to be predictable by chance, which is referred to as by chance accuracy (Schwab, 2006).

The proportional by chance accuracy rate was used to calculate the by chance accuracy used. This rate was computed by squaring the proportion of cases for each group and then summing these squared proportions. As 25% was set as the improvement rate, the classification accuracy rate should be at least 25% higher than the proportional by chance accuracy rate (Schwab, 2006).

Two measures initially are applied to evaluate the accuracy of the model, *the proportional by chance accuracy rate* and *the maximum by chance accuracy rates* is computed, if deemed appropriate. A classification accuracy of above 50% for a model is suggested to be acceptable (Kahn, 2006:109).

1. The proportional chance criteria for assessing model fit is calculated by summing the squared proportion that each group represents of the sample, in this case $(0.519 \times 0.519) + (0.216 \times 0.216) + (0.1 \times 0.1) + (0.108 \times 0.108) + (0.035 \times 0.035) + (0.023 \times 0.023) = 0.361$. Based on the requirement that model accuracy is 25% better than the chance criteria, the standard to use for comparing the model's accuracy is $1.25 \times 0.361 = 0.456$. The model accuracy rate of 63.4 % exceeds this standard. It can be concluded that the criteria for classification accuracy is satisfied.

Table 4.4: Classification Matrices

Observed	Predicted						Percent Correct
	SAMSUNG	HWawei	NOKIA	TECNO	SMADLE	other brands	
SAMSUNG		15	5	1	0	1	87.4%
HWawei	24	42	10	4	2	1	50.6%
NOKIA	19	23	19	1	1	1	29.7%
TECNO	6	3	2	26	2	0	66.7%
SMADLE	1	2	0	11	9	1	37.5%
other brands	5	1	4	0	0	5	33.3%
Overall Percentage	51.9%	21.6%	10.0%	10.8%	3.5%	2.3%	63.4%

Source: Survey result, 2015

2. The maximum chance criterion is the proportion of cases in the largest group, 43.6% (Samsung) (Refer Case Processing Summary Table in the appendices). Based on the requirement that model accuracy be 25% better than the chance criteria, the standard to use for comparing the model's accuracy is $1.25 \times .436 = 54.5\%$. The model accuracy rate of 63.4 % exceeds this standard

4.3.4. Goodness - of- Fit

The significance values of Chi-Square of Table 4.5 below, for both Pearson and Deviance are >0.05 , indicating the acceptance of the Hypothesis that the model adequately fits the data. For the Model, goodness-of-fit shows that the significance of the two tests (Pearson and deviance) are greater than 0.05. This means that the model fits adequately.

Table 4.5: Goodness-of-Fit

	Chi-Square	DF	Sig.
Pearson	1891.239	1825	.137
Deviance	755.608	1825	1.000

Source: Survey result, 2015

4.3.5. Pseudo R-Square

Regarding the explanatory power of Model 1 (pseudo R-square), multinomial logistic regression computes measures to estimate the strength of the relationship (pseudo R

square measures, such as Nagelkerke's R^2). In this case, using Cox & Snell R Square and the Nagelkerke R square value, they provide an indication of the amount of variation in the dependent variable. These are described as pseudo R- square.

Table 4.6 below reveals that the values of pseudo R-Square are 0.647 and 0.68 respectively; suggesting that between 64.7% percent and 68% percent of the variability is explained by this set of variables used in the model.

Table 4.6: Pseudo R-Square

Cox and Snell	Nagelkerke	McFadden
.647	.680	.346

Source: Survey result, 2015

4.3.6. Testing Multicollinearity

Multinomial logistic regression is calculated by the maximum likelihood method, which attempts to review the repetitions to find an answer. However, this repeated process can sometimes result in numerical errors, producing implausible results. There can be three reasons behind these improbable results. Firstly it can be caused by multicollinearity, in which two or more independent variables are highly inter-correlated, making it hard to detect the strength of the impact of each separate predictor. Secondly, some independent variables may have no cases or zero cells, which occurs when all the subjects have the same value for a dummy-coded independent variable. Finally, numerical errors can be the result of complete separation, where any two groups of the dependent variable can be perfectly separated by scores on one of the independent variables. Analyses that indicate numerical problems should not be interpreted (Schwab, 2006). Multicollinearity in the multinomial logistic regression can be detected by looking at the standard errors for the B coefficients, presented in SPSS output of parameter estimates. A standard error larger than 2.0 indicates numerical problems (Schwab, 2006). None of the independent variables in this research had a standard error larger than 2.0; therefore, it is apparent that multicollinearity does not exist (see Table 4.7 next page).

Table 4.7: Parameter Estimates Standard Error

	SAMSUNG*	HWawei *	Nokia *	TECNO *	SMADLE *
	Standard error	Standard error	Standard error	Standard error	Standard error
Intercept	7.046	6.255	6.751	8.728	7.667
Quality	.619	.575	.584	.635	.674
Effective promotions	.377	.368	.376	.463	.501
Celebrity endorsement	.756	.756	.765	.922	.973
Stylish appearance	.484	.481	.482	.568	.592
Price	.534	.547	.534	1.348	1.076
recommendations	.388	.382	.387	.458	.491
Brand Image	.493	.484	.491	.609	.632
Country of origin	.449	.438	.447	.570	.619
Innovative feature	.942	.929	.948	.980	.990
Phone feature	.733	.519	.727	.391	.000
Post sales service	.441	.438	.445	.491	.566

* The reference category is: other brands

In addition to checking the standard errors, Variance inflating vector (VIF) was also used to test the degree of multicollinearity among the continuous variables. When a predictor variable has a strong linear association with other predictor variables, the associated VIF is large and is evidence of multicollinearity (Shieh, 2010). The rule of thumb for a large VIF value is ten (Keith, 2006; Shieh, 2010). Small values for tolerance and large VIF values show the presence of multicollinearity (Keith, 2006). To avoid serious problems of multicollinearity it is quite essential to omit the variable with VIF value 10 and more from the multinomial logit analysis (Field, 2005). The values of VIF and tolerance for the estimated variables were found less than 10 and greater than 0.492 respectively. Based on the VIF result, the data have no serious problem of multicollinearity. As a result, all 11 variable explanatory variables were retained in to multinomial logistic analysis (see Table 4.8 next page).

Table 4.8: Variance Inflation Factor Results

Model		Collinearity Statistics	
		Tolerance	VIF
1	quality of the brand	.704	1.420
	effective promotion of the brand	.907	1.103
	celebrity endorsement of the brand	.930	1.076
	stylish appearance of the mobile phone	.928	1.078
	price of the mobile phone	.871	1.149
	recommendations of family and friends	.940	1.064
	image of the brand	.848	1.179
	country of origin of the brand	.848	1.179
	innovative feature of the brand	.494	2.023
	mobile phone feature	.492	2.031
	post sales service	.913	1.095

Source: Survey result, 2015

4.4. Hypothesis Testing

After having satisfied the requirements concerning the number of valid cases, the overall relationship of the dependent and independent variables, the classification accuracy, and the numerical errors, this subsection analyzes the individual relationships. These relationships could be tested in two ways: Likelihood ratio test and Wald test. The Likelihood ratio test assesses the overall relationship between an independent variable and the dependent variable; while the Wald test measures whether or not the independent variable is statistically significant in differentiating between the two groups in each of the embedded binary logistic comparisons.

Thus, the rest of this section continues with the presentation of the likelihood ratio test results and discussions. In this study, the likelihood ratio test is used to test the formulated

hypothesis just to identify the statistical significant variable for the brand choice decision of young customers. The likelihood ratio test (refer to Table 4.9 below) evaluates the overall relationship between an independent variables and the dependent variable (brand choice).

Table 4.9: Results of Multinomial Logit Analysis: Likelihood Ratio Tests

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
		Chi-Square	DF	Sig.
	-2 Log Likelihood of Reduced Model			
Intercept	797.245	28.584	5	.000
Quality	876.512	107.851	5	.000
Effective promotions	774.229	5.569	5	.350
Celebrity endorsement	773.792	5.132	5	.400
Stylish appearance	805.725	37.064	5	.000
Price	785.166	16.505	5	.006
recommendations	771.871	3.211	5	.668
Brand image	777.564	8.903	5	.113
Country origin	771.348	2.688	5	.748
Innovative feature	791.425	22.764	5	.000
Phone feature	790.984	22.323	5	.000
Post sales service	773.814	5.154	5	.397

Source: Survey result, 2015

Table 4.9 shows the Chi-Square and level of significance values for the Likelihood Ratio test, which are required in testing the statistical significance of a relationship between an independent variable and a dependent variable. These values examine the relationship of a particular predictor, given that the rest of the predictors are in the model. Accordingly, the

relationship is considered to be statistically significant, if the level of significance is less than 0.05, since the confidence interval is set to 95% (Schwab, 2006).

As it is indicated in the above Table 4.9 , quality ($.000 < .05$) , price ($.006 < .05$),stylish appearance ($0.000 \leq .05$) innovative features ($.000 < .05$) and Phone features ($.000 < .05$) are statistically significant where as country of origin ($.748 > 0.05$),promotion($.350 > 0.05$), celebrity endorsement($.400 > 0.05$), brand image($.113 > 0.05$), recommendation ($.668 > 0.05$, and post sales service ($.397 > 0.05$) are statistically insignificant. Hence, the relationship between youth brand choice decision and the five influential factors i.e. quality, price, stylish appearance, innovative features, and phone features are accepted.

However, the hypothesis related to the influence of recommendations of friends and families, brand image, country of origin, celebrity endorsement, promotion and post sales service on mobile phone handset brand choice decisions are rejected.

4.5. Discussions of the Results

In this section detail discussions are done based on the likelihood ratio test results presented in the previous Table 4.9. The empirical findings are combined with the theory in order to provide a wider perspective.

Looking at the likelihood ratio test results of Table 4.9 above, the level of significance for the variable perceived quality is 0.000, which is less than 0.05. As a result the relationship between perceived quality and brand choice decision for mobile phones purchase is statistically significant. This result shows that durability or quality of mobile phone brand variable positively and significantly influences mobile phone purchase decision. Thus, quality of a product is an important attribute that youngsters consider when purchasing a mobile phone. Youth in Addis Ababa therefore prefer to buy and use a phone brand that is durable and last for a long time. This result is consistent with Liu (2002) who found that consumers would purchase a perceived quality phone brand which they had used before or had been recommended by friends, families and expects in the mobile phone industry. Khan and Rohi (2013) also found that quality as a key variable that influence the brand choice of youths for mobile handset purchase in Peshawar, Pakistan.

The second hypothesis claims that effective promotion influences the choice of a mobile phone brand, through which the youth intends to purchase. The likelihood ratio test shows a value of 0.350 for the level of significance for this independent variable, which is greater than 0.05 (See Table 4.9 – Likelihood ratio test). Therefore, the relationship between effective promotion of a brand and choice of a brand is not statistically supported. Accordingly, the hypothesis is rejected. Hence, this implies that youth university students do not consider the promotional activities of the marketers when purchasing mobile phone handset. Similarly, Korn, S. (2005) found that discount, free gift, payment condition and advertising were mentioned as neutral for the purchasing decision towards mobile phone handset.

Since recent times there is an increasing trend towards the use of celebrities in advertising a product or brand. According to Bush and Martin (2000) Celebrities influence young generation's behavioral intentions to buy a certain product or brand. However, the influence of celebrity endorsement on the choice of a particular mobile phone brand, through which the consumer intends to purchase in this study is not supported the theory. As it is indicated in Table 4.9 above, a level of significance of for this variable shows 0.400 which is greater than 0.05. So, the relationship between celebrity endorsement of the brand and brand choice decision is not statistically proven. Hence, this hypothesis is not supported. As a result, it is possible to say that there is no significant relationship between the celebrity endorsement and the buying behavior of youth which states that youth buy the mobile phone brand not because of it is endorsed by a celebrity.

Concerning stylish appearance of the mobile phone, it has been hypothesized that this independent variable will influence the choice of a particular phone brand, through which youngsters intends to purchase. Looking at Table 4.9, a value of 0.000 revealed for the level of significance that is below 0.05 pointing out that stylish appearance of the mobile phone has a significant influence on the choice decision of youth. Therefore, this hypothesis is significantly substantiated. Hence, this implies that when choosing a mobile phone brand young consumers prefer stylish looking phone.

Price is used as a vital factor in the purchase decision (Nilson, 1998; Kotler and Armstrong, 1989). Accordingly, in this study it was hypothesized that mobile phone handset brand choice decision is influenced by price. The likelihood ratio test shows a value of 0.006 for the level of significance for this independent Variable, which is less than 0.05 (see Table 4.9). In view of this, it is evident that there is a significant relationship between price and mobile phone brand choice decision. Thus, the youths are influenced by prices when they purchase mobile phones. Consistently, Kajaluoto, et al., (2005) found that many consumers are highly price sensitive (elastic demand), hence an increase in the price of mobile phone may shift consumers to other competitive brands of mobile phone handsets. Moreover, Tallberg et'al. (2003) and North et'al, (2014) found that Price is a critical and key factor in the mobile phone purchase decisions especially among youngsters.

According to the marketing literatures recommendations have an impact on the consumers purchasing decisions of different products. In this study , with regard to the influence of family and friends recommendations the mobile phone brand choice of the youths the level of significance is 0.668 which is greater than 0.05. As a result, the relationship between recommendations and brand choice is not statistically proven. Therefore, family and friends recommendations are not the significant factor for Youths in the purchase decisions of mobile phones. Similarly, this finding is also justified with similar studies conducted on the factors affecting the choice of mobile phones (Subramanyam and Venkateswarlu, 2012; Pakola et al., 2010).

As mentioned previously in this paper, it was hypothesized that in the making of mobile phone brand choice decisions youngsters consider the brand image of the mobile phone. The likelihood ratio test shows a value of 0.113 for the level of significance for this independent variable, which is more than 0.05, pointing at no significant relationship between youngster's mobile phone brand choice decisions and the image of the brand. From this we can infer that the young university student does not consider the brand image while purchasing the mobile phone.

With regard to country of origin, it has been hypothesized that this independent variable influences the choice of mobile phone brand, through which the young intends to purchase. Examining Table 4.9 above, the level of significance computed in the Likelihood ratio test is found to be 0.748 for this independent variable. The relationship between country of origin of the brand and youth's Choice of that brand is said to be not statistically significant, since computed level of significance values is more than 0.05. This shows that country of origin of a mobile phone is not a critical factor that influences mobile phone handset brand choice of youths. So, youth university students in Addis Ababa buy the mobile phone brand where ever it comes, produces or assembles.

With recent wave in mobile phone technology, users of mobile phone are yearning to own mobile phone handset with advanced technology features such as Bluetooth, camera, FM radio. Technology feature has the greatest impact on mobile phone handset purchase. Factors that determine the selection of mobile phone handset by young people include touch screens, built-in cameras, mp3 capabilities, style of ringtones, colours of mobile phone model available and chat or mobile internet applications (Kumjonmenukul, 2011). Considering innovative features, it was claimed that the choice of a particular mobile phone brand depends on its innovative features. As it is shown in Table 4.9 above, this independent variable has a significance level value of 0.000, which is less than 0.05. A statistically significant relationship between brand choice decision and innovative feature of the brand exist. Hence, this hypothesis is accepted. This suggests that advanced technology feature of phone handset is more likely to influence youth mobile phone handset purchase decision. This result is consistent with Singla and Bansal (2010), Karjaluoto et al. (2005) and O'Keefe (2004) who found technology features of phone handsets to be the main factor that influence mobile phone purchase. Moreover, high resolution colour screens or displays were found to be increasingly essential to camera phones and younger consumers are particularly active camera phone photographers (Curwen, 2010). Accessing mails from the mobile phone has also empowered young consumers; youngsters aged 15–24 years mostly use their mobile phones to listen to music and this preference for mobile music will continue in the future (Yougov, 2006).

Regarding the influence of the features of the phone on the choice of the mobile phone brand, through which the consumer intends to purchase the likelihood ratio test, shows a significance level value of 0.000. This value is less than 0.05, pointing out to a statistically significant relationship between phone features and youth's choice. Accordingly, this hypothesis is substantiated. So, youth university students consider the phone features when purchasing mobile phone handsets. This result is consistent with the study in Kenya by John, M (2012) who found that students mobile phone handset preference was significantly influenced by the attributes of the product or brand. They considered various product attributes as key in determining the nature of mobile phone handset they would like to purchase before considering price.

Final hypothesis suggests that after sales service influences the choice of a particular mobile phone brand in which a youth intends to purchase. The likelihood ratio test shows a value of 0.397 for the level of significance for this independent variable, which is more than 0.05, indicating no statistically significant relationship between brand choice decision and post sales service provided by the mobile phone handset manufacturers. Thus, this result implies that the young consumers are not influenced by post sales service like warranty and guarantee when purchasing mobile phone handsets.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

In this chapter the main findings, conclusion, recommendation and academic and practical implications of the study based on the survey results are presented. First, the major findings from the descriptive and multinomial logistic regression are summarized precisely. Then, conclusions are followed. Subsequently, with regards to marketing challenges revealed by the empirical results, recommendations are posited to marketers of mobile phone handsets. Furthermore, managerial implications as well as recommendations are provided for future researchers interested in the area.

5.2. Summary of Major Findings

The present study captures determinants of youth's mobile phone handsets brand choice decisions focusing on private and public university undergraduate students in Addis Ababa by adopting the major influencing factors from different literatures and studies. The study used descriptive and multinomial logistic regression. The major findings of the study are summarized as follows.

Most of the respondents (43.8%) uses SAMSUNG brand of mobile phone handset and 63.3% of them want to change in the future to HUAWEI brand. According to the descriptive statistics analysis the most important factors influencing mobile phone handset brand choice are product feature (Mean=4.78), price (Mean= 4.59), quality (Mean = 4.53), and innovative features (Mean= 4.37) and the least factor is celebrity endorsement (Mean=1.22). Concerning to the relative importance of the handset features except dual sim, weight and size all are the most important in the choice of mobile phone handset by the youth. Moreover, hypotheses were formulated and tested using multinomial logistic regression. The likelihood ratio test results shows that quality, stylish appearance, innovative features, price, phone features and have a significance value of 0.000, 0.000, 0.000, 0.006, and 0.000 respectively which is below 0.05. This implies a statistically significant relationship between these five factors and youth mobile phone handset brand

choice. The remaining six factors i.e. promotions, country of origin, celebrity endorsement, brand image, recommendations and post sales service have a significance value greater than 0.05 which means the existence of a relationship between these factors and youth brand choice decisions for mobile phone handset purchase is not statistically supported.

5.3. Conclusions

The main objective of this study was to investigate the determinants of youth's brand choice decisions for mobile phone handsets purchase. It empirically examines university students in Addis Ababa. The most important factors influencing mobile phone handset brand choice decisions of youth consumers especially university students are clarified in the research. The study used a descriptive statistics and multinomial logistic regression.

The descriptive statistics showed that most of the respondents have SAMSUNG brand and most of them want to change in the future to HUAWEI mobile phone handset brand. Furthermore, the descriptive statistics results identified that price of a mobile phone, quality, innovative feature stylish appearance, and feature attributes of a mobile phone, such as capacity, design, functions, is the most important issues to young university students. However, recommendations, effective promotion, family and friends, brand image, country-of-origin, post sales service, and celebrity endorsement, are the factors that has the next order of importance respectively on youth university students mobile phone handsets brand choice decisions.

To identify the significant factors influencing brand choice decisions for mobile phone handset purchases, multinomial logistic regression were conducted. According to the multinomial logistic regression result, five factors have significantly influencing the young university students brand choice decisions for mobile phones handsets purchase. These are quality, stylish appearance, phone feature, price and innovative feature. Contrary, as this study revealed that effective promotion, celebrity endorsement, post sales service, recommendations, country of origin and brand image does not have a significant impact on choice of a mobile phone handset brand among the youngest. This means that they are not significantly influenced by the promotion of the brand, the recommendation of friends and

families, the origin of the product and image in which the brand has in the market when purchasing mobile phones.

In conclusion, this study pointed out that young consumers in Addis Ababa seem to strongly value the features and functions of mobile phone handsets having stylish appearance and technological features at reasonable and affordable prices. The more durable or quality a brand of mobile handset, the more stylish appearance, modern technological features at reduced price the more likely young will purchase that brand.

5.4. Recommendations

Understanding your consumer and responding effectively to their needs is inevitable in this day and age of increased competitiveness. Marketers need to identify the end users of product and services. They should frame their marketing plans and actions based on the end consumer's behavior. Concentrating on the factors that are highly appreciated by customers and minimizing the efforts on insignificant ones are the steps marketing managers should consider and implement.

This study has identified the most important of the factors influencing young consumers mobile phone handset brand choice decisions which if utilized by the providers effectively could positively influence consumer response to their marketing strategies. According to the result of this study the following recommendations are provided to the marketers and manufacturers of mobile phone handsets in Ethiopia.

- Manufacturers and marketers of mobile phone handsets should produce and market more durable and high quality mobile phone handsets
- Mobile phone handset manufactures should add more technological features in their mobile handsets
- It is recommended that companies concentrate more on developing quality and affordable mobile phone handsets and spend more time on enhancing their products to offer it at lower prices which can be done by employing cost reduction measures.
- Mobile phone handset manufacturers should try to make their handsets more stylish

- Manufacturers and marketers of mobile phone handsets should focus their advertisement campaign on communicating that their products have standardized quality having innovative features with low price.
- Mobile phone handset companies should carry out periodic survey to help in identifying new features and decide which ones to add to its product. In this way, the company can assess each feature's value to customers versus its cost to the company. Moreover by determining which combination of these features match the current trends and consumer needs would be cost effective to the mobile phone handset companies

5.5. Managerial Implications and Recommendation for Future Research

This study is beneficial to cell phone marketers in the part of getting to know their target consumers. Managers can get substantial benefits by using the results concerning influencing factors in a proper way. In particular, mobile phone handset manufacturers may wish to focus more on the improvement of features of the mobile phone handset, reduction of prices, and making the handset stylish, rather than focusing more on other insignificant factors.

However, according to the theory of consumer behavior, consumer's attitudes keep changing. As a result, these findings may not be applicable in all cases. Surveys should thus be undertaken periodically in order to gauge changing consumer mobile phone purchasing behavior. These surveys should be carried out annually and this will, in turn, help academics and handset manufacturers alike to acquire useful information and to target users more effectively. Additionally, the findings of this study are based entirely upon the research conducted in the Addis Ababa city and hence may not be applicable to other areas on accounts of contextual factors. So that, this survey should be carried out on a wider scale (nation-wide) so as to include all young consumers from other areas. In future work the researcher encourages the replication of this study in other regional areas in which cross-regional similarities and differences could be studied. Moreover, the size of the sample in this study is relatively small. The results will thus vary with those from a larger universe. A larger sample size would yield more accurate results.

REFERENCES

- Aaker, D. A. (1991). Managing brand equity: Capitalizing on the value of a brand name, The Free Press, New York
- Adeogun, et'al. (2008). Application of Logit Model in Adoption Decision. *Journal of Agriculture & Environmental Science*, vol. 4(4), pp. 468–472.
- Aggarwal, P. (2004). The effects of brand relationship norms on consumer attitudes and behavior. *Journal of Consumer Research*, vol. 31 (1), pp 87-101
- Ahmed,N., Farooq, O.,and Iqbal J.(2014). Credibility of Celebrity Endorsement and Buying Intentions in Pakistan. *Journal of International Letters of Social and Humanistic Sciences*, v.9, pp.1-13
- Ahmed, Z. U., Johnson, J.P, Yang, X., Chen, K. F., Han, S. T. & Lim, C. B. (2004). Does country of origin matter for low-involvement products? *International Marketing Review Journal*, vol.21 (1), pp. 102-120.
- Akinci, S. Kaynak E. Atilgan, E. and Aksoy S. (2007). Where does the Logistic Regression Analysis stands in Marketing Literature? A Comparison of the Market Positioning of Prominent Marketing Journals. *European Journal of Marketing* , Vol. 41 (5/6) pp. 537-567
- Allaway, A. W. Gooner, R. M. Berkowitz, D. and Davis, L. (2006). Deriving and Exploring Behaviour Segments within a Retail Loyalty Card Program. *European Journal of Marketing*, Vol 40 (11/12) pp. 1317-1339
- Anol Bhattacharje (2012). Social Science research: Principles, methods and practices: University of south Florida, USA
- Assal,H.(1987) .consumer behavior and marketing action.3rd edition. Kent publishing co. Boston, New York.
- Bamfo, B. A. (2012). Consumer attitude towards products made in Ghana. *Global Journal of Business Research*, vol.6(1),pp. 39-46

- Ballantyne, R., Warren, A., and Nobbs, K. (2006). The evolution of brand choice. *Journal of Business Research*, vol. 8(3), pp. 35-48.
- Bearden, William O, Richard G., Netemeyer and Jesse, E. T. (1989). Measurement of Consumer Susceptibility to Interpersonal Influence. *Journal of Consumer Research*, Vol. 15, pp. 473-481.
- Belch, G.E. and Belch, M.A. (1995). Introduction to advertising and promotion: An integrated marketing communication perspective. Third Edition, Irwin, Boston.
- Bentz, Y. and Merunka, D. (2000). Neural networks and the multinomial logit for brand choice Modeling: a hybrid approach. *Journal of Forecasting*, Vol. 19(3), pp.177-200.
- Brand Management. Vol. 13, No. 4/5, pp. 339-352.doi:10.1057/palgrave.bm.2540276 availableat:<http://www.researchgate.net/publication/233654343Theevolutionofbrandchoice>
- Blackwell, RD, Miniard, PW & Engel, J.F. (2006). Consumer behavior. 10th edition, Thomson South-Western, Boston Bluemelhuber.
- Burns,A., & Bush,R. (2009). Determining the Sample Plan in marketing Research: Online Research Applications. (4th edition).
- Burns, A.C. and R. Bush. (1995). Marketing Research, New Jersey: Prentice Hall Inc.
- Calık, N., & FigenErsoy, N. (2008). Online shopping behavior and characteristics of consumers in eskisehir. Turkey: who, what, how much and how often. *The Business Review*, Vol. 10(2), pp.24-53.
- Carter, L. L. & Lambe, C. L. (2007). Extending the view of brand alliance effects: An integrative examination of the role of country of origin. *Journal of International Marketing Review*, vol 24(4), pp. 427-443.
- Chan, M. (2013). Mobile phones and the good life: Examining the relationships among mobile use, social capital and subjective well-being.New Media & Society, 1461444813516836. <http://nms.sagepub.com/content/17/1/96>

- Cordell, V.V. (1992). Effects of Consumer Preferences for Foreign Sourced Products. *Journal of International Business Studies*, vol.23 (2), pp. 251-69.
- Cravens, D. W., & Nigel F. P. (2003). Strategic Marketing, Prentice Hall of India, New Delhi
- Das, D. (2012). An empirical study of factors influencing buying behaviour of youth consumers towards mobile handsets: A case study in coastal districts of Odisha. *Asian Journal of Research in Business Economics and Management* ,vol. 2(4),pp. 68-89.
- Deustch, M., and Harold, B. Gerard (1955). A study of normative and informational social influences upon individual judgment. *Journal of abnormal & Social Psychology*, Vol. 51(3), pp. 624-636.
- Dillman, D. (2000). Mail and Internet Surveys: the tailored design method. 2nd edition, New York.
- Dziwornu, R. K. (2013). Factors Affecting Mobile Phone Purchase in the Greater Accra Region of Ghana: A Binary Logit Model Approach. *International Journal of Marketing Studies*, vol. 5 (6), pp. 151-163.
- Dzigbordi, M. et al (2014) . Key determinants of students' mobile phone choice. *Journal of Retailing*, vol.3(4),pp.45-63.
- Erdem, T. & Swait, J. (2004). Brand credibility, brand consideration, and choice. *Journal of Consumer Research*, vol.31(2),pp. 191–198.
- Erdem, T., Swait, J., & Valenzuela, A. (2006). Brands as signals: Across-country validation study. *Journal of Marketing*, vol.70, pp. 34–49.
- Ettenson R., Wagner J. & Gaeth. G .(1988). Evaluating the effect of Country of Origin and the "Made in USA" Campaign: A Conjoint Approach. *Journal of Retailing*, vol. 64(1),pp .87-100.
- Ettenson, R. (1993). Brand name and country of origin effects in the emerging market economies of Russia, Poland and Hungary. *Journal of International Marketing Review* , vol.10(5),pp. 14-36.

- Field, A. (2009). *Discovering Statistics Using SPSS*. London: Sage.
- Frambach, R. T., & Schillewaert, N. (2002). Organizational innovation adoption: A multi-level framework of determinants and opportunities for future research. *Journal of Business Research*, vol.5(5), pp.163-176.
- Fornell, C. and Bookstein, F.L. (1982). Two Structural Equation Models: LISREL and PLS Applied to Consumer Exit-Voice Theory. *Journal of Marketing Research*, Vol. XIX, pp. 440-452
- Geoffrey M., David DeM., and David F. (2005). *Essentials of Research Design and Methodology*, John Wiley & Sons, Inc., Hoboken, New Jersey.
- Grapentine, T. (1995). Dimensions of an attribute. *Journal of Marketing Research*, Vol. 7(3), pp. 18-27.
- Gujarati, D. N. (1988). *Basic Econometrics* (2nd ed). McGraw-Hill Book Company, New York.
- GSMA intelligence : the mobile economy 2014 www.gsmainelligence.com
- Hakoama, M., & Hakoyama, S. (2011). The impact of cell phone use on social networking and development among college students. *The American Association of Behavioral and Social Sciences Journal*, vol.15(11),pp. 1-20.
- Han, S. H., Kim, K. J., Yun, M. H., Hong, S. W., & Kim, J. (2004). Identifying mobile phone design features critical to user satisfaction: Human Factors and Ergonomics in Manufacturing & Service Industries. *Journal of marketing research*, vol. 14(1), pp. 15-29.
- Hill, N., Brierley J., and MacDougall, R. (2003). *How to measure customer satisfaction*, Gower Publishing Ltd., England
- Hill, L., & Kau, P. (1981). Analysis of Purchasing Decision with Multivariate Probit. *American Journal of Agricultural Economics*, 53(5), 882–883.
- Hosmer, David W., S. Lemeshow (2000), "Applied Logistic Regression", John Wiley & Sons, Inc.

- Howard A.J.(1989). Consumer behavior in marketing strategy. Prentice Hall, Englewood cliffs New jersey .Columbia.
- Hayes B. E, (1992), Measuring Customer Satisfaction: Development and Use of Questionnaires, ASQC, and Milwaukee, Wisconsin, USA.
- James F.E, Roger D.B, Minard , W. P.(1993). Consumer behavior. 7th edition. The Dryden press, New York.
- John, M.(2012). Influence of Product Attributes on Mobile Phone preference among university students: A Case of Undergraduate students. *International Journal of Academic Research in Economics and Management Sciences*, vol.1(6),pp.10-16.
- Juwaheer, T. D., Vencatachellum, I., Pudaruth, S., Ramasawmy, D., & Ponnusami, Y. (2014). Factors influencing the selection of mobile phones among young customers in Mauritius. *International Journal of Innovation and Knowledge Management in Middle East & North Africa*, vol.3(1), pp. 65-92.
- Juwaheer,D.T, Pudaruth,S., Vencatachellum,I, Ramasawmy, D. Ponnusami,Y.(2013). Factors influencing the selection of mobile phones among young customers in Mauritius .*International Journal of Advanced Research* ,Vol 1(4), pp. 326-339.
- Kabadayi, T.E., Aygun, I. and Cigdem, C. (2007). The Effects of Marketing Mix Strategies on Brand Equity: Mobile Phone Sector. *Journal of Global Strategic Management*, vol. 2, pp. 61-66.
- Karjaluoto et al. (2005). Factors affecting consumer choice of mobilephones: Two studies from Finland. *Journal of Euro marketing*, vol 14(3), pp. 59-82.
- Keith, T. (2006). *Multiple regression and beyond*. PEARSON Allyn & Bacon.
- Mason, C., & Perreault Jr., W. (1991). Collinearity, power, and interpretation of multiple regression analysis. *Journal of Marketing Research*,vol.28(3), pp. 268-280.
- Keller, K. L., (2008) . Strategic Brand Management, Second Edition, Prentice Hall of India, New Delhi.

- khan,s & rohi,s.(2013). Affecting youth brand choice for mobile phones purchase : a study of private universities students of Peshawar. *World Applied Sciences Journal*, vol.24 (7), pp. 844-849.
- Kotler, P., and Armstrong, G. (2007).Principles of Marketing. (12th Ed.), Boston: Pearson Education.
- Kotler, P.(1999). Gary Armstrong Principles of Marketing translates Ali Parsaeian, Tehran, Press Adabestan
- Kotler, P ., Armstrong, G., Wong, V., and Saunders, J.. (2008). Principles of Marketing. Fifth European Edition, Pear-son Education Limited.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Journal of Educational and psychological measurement*, vol. 30(3), pp. 607-610
- Kumar, V. (2000) .International marketing research. NJ, Prentice Hall Englewood Cliffs.
- Ling, C., Hwang, W., & Salvendy, G. (2006). Diversified users' satisfaction with advanced mobile phone features.*Universal Access in the Information Society*, vol.5(2),pp. 239-249.
- Liu, C. M. (2002). The effects of promotional activities on brand decision in the cellular telephone industry. *The Journal of Product & Brand Management*, vol.11 (1),pp.42- 51.
- Olsen, J. E., Biswas, A. & Granzin, K. L. (1993). Influencing consumer selection of domestic versus imported products: Implications for marketing based on a model of helping behavior. *Journal of the Academy of Marketing Science*, vol. 21(4), pp. 307-321.
- Malasi, J. M. (2012). The Influence of Price on Mobile Phone Penetration amongst the youth: A Case of Undergraduate Students. *Canadian Journal of Business and Economics*, vol.1 (1), pp. 43-47.
- Meyers, Lawrence S., G. Gamst, A. J. Guarino (2006). Applied multivariate research: design and interpretation. Retrieved on 2009-05-02 from <http://books.google.com.tr/books?id=7e4npyN3BasC>

- Mokhlis, S., & Yaakop, A. Y. (2012). Consumer Choice Criteria in Mobile Phone Selection: An Investigation of Malaysian University Students. *International Review of Social Sciences & Humanities*, vol.2(2), pp.203-212 .
- Moorthy, S., Ratchford, B. (1997). Consumer information search revisited Theory and Empirical analysis. *Journal of Consumer Research*, vol. 23(4), pp. 263 277.
- Najmi A., Haq M.A., Majeed S., Khan N.R.,(2014,). Effects of product's warranty on customers' preferences: empirical findings on reverse logistics models. *LogForum journal*, vol. 10 (3), pp. 305-317.
- Narwal , M.(2014). Decision Factors Affecting Consumers Purchasing Behavior For Publicly Used Products. *International Journal of Engineering and Management Research*, Vol. 4(3), PP. 303-309 .
- Nagelkerke, N. J. D. (1991). A note on general definition of the coefficient of determination. *Biometrika*. Jouran of Statistics, vol. 78,pp. 691–692.
- North, D., Johnston, K., & Ophoff, J. (2014). The use of mobile phones by South African university students. *Issues in Informing Science and Information Technology journal*, vol 11, pp. 115-138.
- Nowicki, S., and Duke, M.P. (1983). *The Nowicki-Strickland life span locus of control scales*: Construct validation
- O’Keefe, M. (2004). 2004 worldwide camera phone and photo messaging forecast. Info Trends Research Group, Inc. Research Report
- Osman,M.A., Talib,A.Z., Sanusi,Z.A., Shiang-Yen,T., & Alwi,A.S. (2012). A Study of the Trend of Smartphone and its Usage Behavior in Malaysia. *International Journal on New Computer Architectures and Their Applications*,vol.2(1), pp. 275-286.
- Oneupweb. (2005). Mobile search and its implications for search engine marketing. http://www.mmaglobal.com/files/uploads/OneupwebMobile_Search_Research.pdf
- Pakola, J., Pietila, M., Svento, R., & Karjaluoeto, H. (2005). An Investigation of consumer behaviour in mobile phone markets in Finland. InProceedings of 32nd EMAC Conference, Track: New Technologies and E-marketing.

- Peter,P.J. &Olson J.C.(1990). Consumer behavior and marketing strategy.2nd edition. Richard Irwin Inc. , Boston, America.
- Populations and sampling. (n.d.). Retrieved december 25, 2014, from <http://www.umsl.edu/~lindquists/sample.html> Willy online library
- Prempeh,O.V, Boateng,A.C,& Y.S Asuamah(2013). what are the important attributes in the purchase of mobile phones?. *International Journal of Research in Finance & Marketing*, Vol.3(5) , pp.1-31
- Rashid A.Z., , Nallamuthu, J and Sidin S.(2002).Perceptions of Advertising and Celebrity Endorsement in Malaysia. *Asia Pacific Management Review*, vol. 7(4), pp.535-554.
- Rai,R.S.and Sharma K.A.(2013).Celebrity Attributes and Influence on Consumer Behaviour : A Study of Shekhawati Region of Rajasthan. *Pacific Business Review International*, Vol. 5 (11), pp57-64.
- Rimoldi, O. (2008). The impact of ‘likeability’ on advertising effectiveness: To what extent does liking an advert have a persuasive influence on consumer behavior? Pp. 1-120. Bsc degree dissertation.
- Saeed,R.,et’al.(2013). Analysis of consumer behavior in mobile phone market in Sindh. *European scientific journal* ,vol.9,(31), pp.23-37.
- Saif, N., Razzaq, N., Amad, M., & Gul, S. (2012). Factors Affecting Consumers’ Choice of Mobile Phone Selection in Pakistan. *European Journal of Business and Management*, vol.4(12),pp. 16-26.
- Sata , M. (2013). Factors Affecting Consumer Buying Behavior of Mobile Phone Devices. *Mediterranean Journal of Social Sciences*, V.4(12), PP. 103-112.
- Saunders, M., Lewis, P. & Thornhill, A. (2003). Research methods for business students,3rd edition. Harlow: Pearson Education ltd.
- Schiffman, L., O’cass, A., Paladino, A., D’alessandro, S., & Bednall, D. (2011). Consumer Behavior (5th edition). NSW, Pearson.
- Schiffman K. (2005).Consumer Behaviour,,Eight Edition.Prentice Hall of India,New Delhi.

- Schwab, J. (2006). Lecture notes for Data Analysis II, The University of Texas, Retrieved on 2009-03-15 from <http://www.utexas.edu/courses/schwab>
- Schupp, A., J. Gillespie, and D. Reed.(998). Consumer Choice Among Alternative Red Meats. *Journal of Food Distribution Research*. Vol 29, pp. 35-43.
- Sekaran, U. (2000). Research Methods for Business. New York: John Wiley & Sons , Inc.
- Shieh, G. (2010). On the misconception of multicollinearity in detection of moderating effects: Multicollinearity is not always detrimental. *Multivariate Behavioral Research*, vol. 45,pp. 483-507.
- Simonin, B. L. & Ruth, J. A. (1998). Is a company known by the company it keeps? Assessing the spillover effects of brand alliances on consumer brand attitudes. *Journal of Marketing Research* , vol.35(1), pp. 30-42.
- Singh, J., & Goyal, B. (2009). Mobile handset buying behavior of different age and gender groups. *International Journal of Business and Management*,vol.4(5), pp.179-204.
- Solomon, M. R.(2006). Consumer Behavior. Seventh Edition, Prentice Hall of India, New Delhi.
- Strutton, D. & Pelton, L.E. (1993). Southeast Asian consumer perceptions of American and Japanese imports: The influence of country-of-origin effects. *Journal of International Consumer Marketing* , vol.6(1),pp. 67-86.
- Stump,R.D., Gong, W., and Li, Z.(2008). Exploring the Digital Divide in Mobile-phone Adoption Levels across Countries. *Journal of Macro marketing*, Vol. 28(4), pp. 397-412.
- Subramanyam and Venkateswarlu (2012). Factors Influencing Buyer Behaviour of Mobile Phone Buyers in Kadapa District. *Indian Journal of Research*,vol. 1(11), pp.3-5.
- Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Journal of Information Systems Research*,vol.6(2), pp. 144-176.
- Tabnacknick, B.G. Fidell, L.S. (2007) *Using Multivariate Statistics* Allyn and Bacon, Boston MA.

- Uddin ,R.M, Lopa,Z.N, and Oheduzzaman, M.(2013). Factors affecting customers' buying of mobile phone. *International Journal of Managing Value and Supply Chains (IJMVSC)* Vol.5(2), pp.21-28.
- Verlegh , P.W.J. & Steenkamp J-B. E. M. (1999). A review and meta-analysis of country of origin research. *Journal of Economics and. Psychology*, vol. 20(5), pp. 521-546.
- Walsh, S. P., White, K. M., & Young, R. M. (2007). Young and connected: Psychological influences of mobile phone use amongst Australian youth. *Journal of Consumer Behaviour*, Vol.4(1), pp. 125- 137.
- Walters,G.C.,&Bergile B.J.(1989).Consumer behavior : a decision making approach. South western publishers, California, USA.
- Wu, J., & Wang, S. (2005). What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Information & Management*, 42(5), 719-729. doi: 10.1016/j.im.2004.07.001
- Yang, J., He, X., & Lee, H. (2007). Social reference group influence on mobile phone purchasing behaviour: a cross-nation comparative study. *International Journal of Mobile Communications*, vol.5(3), pp. 319-338.
- Yin, R. K. (2003). *Case Study Research: Design and Methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Yun, M. H., Han, S. H., Hong, S. W., & Kim, J. (2003). Incorporating user satisfaction into the look-and-feel of mobile phone design. *Journal of Ergonomics*, vol.46(13), pp. 1423-1440.
- Zikmund, W. G., Ward, S., Lowe, B., Winzar, H., & Babin, B. J. (2011). *Marketing Research* (2nd ed.). Melbourne: Cengage Learning Australia.
- Zulkefly, S.N., & Baharudin, R. (2009). Mobile Phone use Amongst Students in a University in Malaysia: Its Correlates and Relationship to Psychological Health. *European Journal of Statistic Research*, vol. 37(2), pp.206-218.

APPENDICES

Appendix I: Questionnaire

ADDIS ABABA UNIVERSITY

SCHOOL OF COMMERCE

Questionnaire

Dear respondents:

I am a graduate student at Addis Ababa University School of Commerce. Currently I am conducting a research for the completion of my master's degree in marketing management. This research is to identify the determinants of youth brand choice for mobile phone handset purchase. Your willingness and cooperation in giving reliable information is well appreciated and the information you provide will be used for academic purpose only and will be kept in strict confidentiality.

Cordially;

The student researcher

Section one: Personal information

1. Gender

Male	Female

2. Age

under 25 years old	25 – 30 years old

3. Income of your family (**monthly**)

Under 1000 birr	
1000- 5000 birr	
5001 – 10,000 birr	
10,000 birr - 15000 birr	
15000 - 20000 br	
above 20000 br	

4. Your current mobile phone handset price range

≤ 500 Br	501-1000 birr	1001-1500 Br	1501 – 2000 Br
2001- 2500 Br	2501-3000 birr	3001- 5000 birr	Above 5000 birr

5. Which brand of mobile phone handset brand do you own currently? Please tick on the box below

- | | | |
|----------------------------------|--|--|
| ☐ Nokia | ☐ Sony Ericsson | ☐ LG |
| ☐ SAMSUNG | ☐ G-TIDE | ☐ HTC |
| ☐ TECNO | ☐ SMADLE | ☐ HWAWEI |
| ☐ TANA | ☐ Blackberry | ☐ Others please specify |

6. Which mobile phone handset do you wish to change to?

- | | | |
|---------------------------------|----------------------------------|-------------------------------------|
| ☐ LG | ☐ SMADLE | ☐ Blackberry |
| ☐ HWAWEI | ☐ SMASUNG | ☐ Others |
| ☐ TECNO | ☐ HTC | specify..... |
| | ☐ G-Tide | |

Section two

Please indicate the influence of the following factors up on your decision when you choose the mobile phone handset brands to buy. 1-not at all important, 2- not bad, 3- important, 4 – very important, 5- extremely important.

No	Important factors	Extent of importance for brand choice of mobile phones purchase				
		Not at all important	Not bad	Important	Very important	Extremely important
1	Quality					
2	Effective Promotions					
3	Celebrity endorsement					
4	Stylish appearance					
5	Price					
6	Friends and family recommendations					
7	Brand image					
8	Country of origin					
9	Innovative features					
10	Post sales service (warranty and maintenances service)					

1. Features of mobile phone handset

Please indicate the relative importance of the features of a mobile phone handset below when you choose the brands to purchase (1 not at all important to 5 extremely important)

No	features	Extent of importance				
		Not at all important	not bad	important	Very important	Extremely important
1	Built-in camera					
2	Larger memory capacity					
3	Phone memory capacity					
4	External memory option					
5	Long lasting battery					
6	Dual SIM					
7	Wi-Fi and internate facilities					
8	Bluetooth and Infrared					
9	Audio and video recording					
10	Color screen					
11	Radio and MP3					
12	Multimedia options					
13	Design and styling\					
14	Shape, size, weight					
15	Touch screen					

Appendix II: Descriptive Statistics and Multinomial Logistic Regression Results

Reliability Statistics

Cronbach's Alpha	N of Items
.605	11

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
mobile phone feature	400	2	5	4.78	.578
price of the mobile phone	400	2	5	4.59	.585
innovative feature of the brand	400	1	5	4.53	.752
quality of the brand	400	2	5	4.37	.735
recommmendations of family and friends	399	1	5	3.38	.956
effective promotion of the brand	400	1	5	2.70	.910
stylish appearance of the mobile phone	400	1	5	2.31	.960
image of the brand	400	1	5	2.25	.783
country of origin of the brand	400	1	5	1.78	.781
post sales service	400	1	5	1.57	.801
celebrity endorsement of the brand	400	1	3	1.22	.475
Valid N (listwise)	399				

Case Processing Summary

		N	Marginal Percentage
current mobile phone brand owned by respondent	samsung	174	43.6%
	hwawei	83	20.8%
	nokia	64	16.0%
	techno	39	9.8%
	smadle	24	6.0%
	other brands	15	3.8%
Valid		399	100.0%
Missing		1	
Total		400	
Subpopulation		377 ^a	

a. The dependent variable has only one value observed in 368 (97.6%) subpopulations.

Model Fitting Information

Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	1183.756			
Final	768.660	415.095	55	.000

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	1891.239	1825	.137
Deviance	755.608	1825	1.000

Pseudo R-Square

Cox and Snell	.647
Nagelkerke	.680
McFadden	.346

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	quality of the brand	.704	1.420
	effective promotion of the brand	.907	1.103
	celebrity endorsement of the brand	.930	1.076
	stylish appearance of the mobile phone	.928	1.078
	price of the mobile phone	.871	1.149
	reccomendations of family and friends	.940	1.064
	image of the brand	.848	1.179
	country of origin of the brand	.848	1.179
	innovative feature of the brand	.494	2.023
	mobile phone feature	.492	2.031
	post sales service	.913	1.095

a. Dependent Variable: current mobile phone brand owned by respondent

Likelihood Ratio Tests

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	797.245	28.584	5	.000
quality	876.512	107.851	5	.000
effectivepromtions	774.229	5.569	5	.350
celbrityendorment	773.792	5.132	5	.400
stlishappearance	805.725	37.064	5	.000
price	785.166	16.505	5	.006
recommenadtions	771.871	3.211	5	.668
Bimage	777.564	8.903	5	.113
Couorigion	771.348	2.688	5	.748
innovatifeature	791.425	22.764	5	.000
phonefeature	790.984	22.323	5	.000
postsaleservice	773.814	5.154	5	.397

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0

Classification							
Observed	Predicted						
	samsung	hwawei	nokia	techno	smadle	other brands	Percent Correct
samsung	152	15	5	1	0	1	87.4%
hwawei	24	42	10	4	2	1	50.6%
nokia	19	23	19	1	1	1	29.7%
techno	6	3	2	26	2	0	66.7%
smadle	1	2	0	11	9	1	37.5%
other brands	5	1	4	0	0	5	33.3%
Overall Percentage	51.9%	21.6%	10.0%	10.8%	3.5%	2.3%	63.4%

Parameter Estimates

		B	Wald	df	Sig.	Exp(B)
Samsung*	Intercept	40.690	33.348	1	.000	
	quality	3.954	40.794	1	.000	52.119
	Effective promotions	-.202	.288	1	.592	.817
	Celebrity endorsement	-.920	1.480	1	.224	.399
	Stylish appearance	1.527	9.963	1	.002	4.605
	price	.995	3.466	1	.063	2.704
	recommendations	.300	.599	1	.439	1.350
	Brand Image	.926	3.520	1	.061	2.523
	Country of origin	.203	.204	1	.652	1.225
	Innovative feature	-1.439	2.334	1	.127	.237
	Phone feature	-11.650	252.335	1	.000	8.722E-006
	Post sales service	.254	.332	1	.564	1.289
HWAWEI*	Intercept	57.938	85.809	1	.000	
	quality	1.822	10.025	1	.002	6.183
	Effective promotions	-.423	1.322	1	.250	.655
	Celebrity endorsement	-.862	1.300	1	.254	.422
	Stylish appearance	.593	1.524	1	.217	1.810
	price	1.342	6.027	1	.014	3.828
	recommendations	.411	1.159	1	.282	1.509
	Brand Image	.413	.726	1	.394	1.511
	Country of origin	.331	.572	1	.449	1.393
	Innovative feature	-1.206	1.686	1	.194	.299
	Phone feature	-13.190	645.253	1	.000	1.868E-006
	Post sales service	.167	.145	1	.703	1.181
NOKIA*	Intercept	56.859	70.941	1	.000	

	quality	1.671	8.185	1	.004	5.318
	Effective promotions	-.555	2.174	1	.140	.574
	Celebrity endorsement	-.635	.691	1	.406	.530
	Stylish appearance	1.124	5.430	1	.020	3.076
	price	.638	1.428	1	.232	1.893
	recommendations	.113	.086	1	.769	1.120
	Brand Image	.468	.906	1	.341	1.596
	Country of origin	.064	.020	1	.886	1.066
	Innovative feature	-.753	.631	1	.427	.471
	Phone feature	-12.621	301.409	1	.000	3.301E-006
	Post sales service	.255	.330	1	.566	1.291
TECNO*	Intercept	58.098	44.309	1	.000	
	quality	1.093	2.965	1	.085	2.983
	Effective promotions	-.573	1.534	1	.215	.564
	Celebrity endorsement	-1.823	3.915	1	.048	.161
	Stylish appearance	1.430	6.328	1	.012	4.178
	price	3.649	7.334	1	.007	38.442
	recommendations	.383	.700	1	.403	1.467
	Brand Image	.147	.058	1	.810	1.158
	Country of origin	.323	.322	1	.570	1.382
	Innovative feature	-2.482	6.407	1	.011	.084
	Phone feature	-14.227	1322.818	1	.000	6.623E-007
	Post sales service	.765	2.432	1	.119	2.149
SMADLE*	Intercept	69.061	81.138	1	.000	
	quality	.634	.884	1	.347	1.885
	Effective promotions	-.598	1.427	1	.232	.550
	Celebrity endorsement	-1.327	1.861	1	.173	.265
	Stylish appearance	1.772	8.956	1	.003	5.880
	price		2.314	1	.128	5.138
	recommendations	.408	.693	1	.405	1.505
	Brand Image	.052	.007	1	.935	1.053
	Country of origin	-.115	.035	1	.852	.891
	Innovative feature	-2.540	6.590	1	.010	.079
	Phone feature	-14.067	.	1	.	7.778E-007
	Post sales service	.191	.114	1	.736	1.210

*the reference category is: other brands