CHAPTER I

INTRODUCTION AND DESIGN OF THE STUDY

1.1. INTRODUCTION

The Consumer Durables industry in State of Eritrea consists of durable goods and appliances for domestic use such as televisions, refrigerators, air conditioners and washing machines. Gadget such as cell phones and kitchen appliances like microwave ovens were also incorporated in this group. The division has been spectacularly important expansion in recent years, facilitated by several drivers such as the emerging retail boom, real estate and housing demand, better disposable profits and an over all augment in the level of wealth of an important section of the population. The Eritrean electronic markets are symbolized by major international players such as Sony, Panasonic, LG, Nokia, Samsung, Blue Star, MIRC Electronics, Philips, Whirlpool and etc.

The objective of this thesis is: to provide a framework to study buyers’ behaviour for durable electronic goods in State of Eritrea. The electronic industry help us to identify important characteristics about electronic products like television, mobile phones, washing machines, camcorders, laptops, etc. First, electronic goods are durable; and the consumers usually buy electronic goods with the intention of keeping them for a long period of time; further, the consumers buy electronic goods looking for the need of fulfillment, good features, good design, etc. Hence, the purchase of electronic goods is highly based on comparison of various factors which cannot ascertain every characteristic of the electronic goods before buying the product as far as our utility function is concerned. The consumers learn a lot about electronic goods before buying them, but still want to learn a lot after using them; in particular, whether they give good match (satisfaction) or bad match (dissatisfaction) to the user. Commercial activity is increasingly being determined by the demands
of the end users, where manufacturers are now placing greater stress on trying to recognize the needs and wants of buyers. The market in the State of Eritrea is becoming a more significant determinant of organizational decision making. This trend is referred to as the marketing concept. Earlier, manufacturers’ policies gave more weight to efficient production methods, where marketers had to sell what was given to them by the production department. For example, Henry Ford, a pioneer of mass production, stated that buyers could have car in whatever color they liked as long as it was black. In keeping with the marketing concept, buyer’s behaviour focuses on understanding the behaviour of the individuals who make up the market. Those who want to choose a marketing career should be interested in people. Marketers deal with people in the same way as the engineers deal with materials. The study of buyers’ behaviour among the people of Eritrea concerns itself with analyzing aspects of human nature as they apply to a marketer’s day-to-day activities. Speculating in 1940, on the nature of a discipline of consumer’s performance, Roland Vaile posed the question, "Is present a science or discipline of consumption?" His answer was that "any such regulation must be a matter of mixture, eclectic in the extreme." Further, the regulation would "include evidence from physiology and genetics, physics and chemistry, psychology and neurology, economics and political science...engineering and dietetics, painting and music, banking and advertising." (p. 50) More freshly, though, scholars lament the eclectic borrowing of concepts and create (Mitteistaedt 1971, Sheth 1979). Among other things, Sheth (1979) blames this type of borrowing for what he views as the present "shortages" in consumer behaviour. One move toward the arena of influence as different to cognitions (Zajonc and Marcus 1982, Gardner 1985, Rook 1985) and to focus on such topics as disposition states (Gardner 1985), ritual behaviour (Rook 1985) While this research has a supplementary social dimension; it has tended to be a primary alert on the individual. Other consumer researchers have sought to achieve triangulation by adding historical behavioral concepts to the normally cognitive-psychological approach.

The most challenging concept in the Eritrean electronic marketing is understanding the behaviour of the buyers. Buying Behaviour of the buyers in State of Eritrea refers to the behaviour of the ultimate clients, and households who buy goods and services for personal expenditure. It is charming but it is a dissimilar area to research and this is chiefly pertinent to the tourism field, where the consumer’s choice to purchase is of touching implication. Consumers vary tremendously according to age, income, education level and tastes and they buy an incredible variety of goods and services. Today, marketing activities are slowly rising after independence in State of Eritrea. To draw the attention of buyers, the marketers should really understand how buyers will respond to different features of the product; price and promotion application has a great advantage over its competitors. Behaviour of the buyer in State of Eritrea is affected by many uncontrollable factors and their purchases are powerfully prejudiced by cultural, social, personal and psychological factors. These factors cannot be controlled by marketers but must be taken into account before launching a product or advertising the product. Today, focus on marketing activities is highly intensified in all the sectors like consumer products, business products, and international products and also in non-profit organizations. More and more group in these sectors
recognize how marketing applications can contribute in improving the market performance of State of Eritrea. The appearance of marketing concept in admiration of market offerings is an ongoing, changing phenomenon in State of Eritrea. Let’s produce, what the producer thinks; the market wants, the sales department will manage to sell, this was the focus prior to the beginning of the marketing concept in the context of selling the products. But the end of 1950’s paved avenues for products marketing as users’ satisfaction received due weightage. It is very difficult to predict and understand users’ behaviour worldwide. Obviously, it becomes important for every sector to concentrate on users and their behaviour. Communication can aid in the acceleration of the growth of the economy by transmitting information and simplifying motivation. Mobility is a fantastic facility possessed by man that helps him to explore the places and thus provides a way for his survival. This plays an important role in the development of human civilization. Communication has been playing a pivotal role in man’s life in the State of Eritrea from time immemorial. Invention like radio, television, computer, cell phone, etc, made a tremendous change in the world. Development in the field of communication is at a galloping pace. Due to these advanced technologies in communication, the world has shrink to a Global village. It is fair enough to say that mobile communication is an achievement of the late 20th century, which revolutionized the way human beings communicate with each other. It is the purpose of bringing a major change in the world scenario and transforming the world into a global village. Mobility helps one to send and receive information anytime, anywhere and make one to keep up the pace in this competitive world. The recent news from boardrooms of all companies ranging from durables to non-durables, are chanting only one “mantra”: how to focus and woo the consumers to buy goods/services? In recent days, globe has been witnessing a sea change in all aspects, needless to say the increase of standard of living and catching up with new life styles. Thanks to private satellite channels, as they bring the
world to courtyards of many houses in the villages. This created a tremendous modification in the performance of buyer behaviour in State of Eritrea.

The main aim of the study is to identify the factors that influence the Buyers’ behaviour on select electronics durable goods and also concentrate on evaluating the effectiveness of the factors in State of Eritrea towards the buyer’s behaviour. Buyer’s behaviour is an inter-disciplinary study that has resulted from the advances in several areas of the behavioral sciences. The combined perspectives of psychology, sociology, anthropology and economics make positive contributions to our understanding of buyer’s behaviour.

The study of buyer’s behaviour involves how individuals and organization discovers, evaluate, consume, and dispose of products and services. It attempts to provide answers to the questions: Who buys? When do they buy? Where do they buy? Why and how do they buy? Three inter-related activities comprise all the behaviour of buyers: pre-purchase activities, purchase activities, and consumption activities. These categories are true for individual consumers and industrial consumers. The basic theories and methods of analyses are essentially the same. The field of studying buyer’s behaviour in State of Eritrea is relatively new approach when compared with other marketing studies.

1.2. NEED FOR THE STUDY

All of us are consumers of various products for daily use which are purchased according to the needs, preferences, tastes, desire and capacity of the buyers. These products are classified as consumable goods, durable goods, specialty goods or industrial goods. What to buy, how to buy, where and when to buy, in how much quantity to buy depends on various factors such as need, perception, self concept, society, culture, age, family cycle, our attitudes, beliefs, values, motivation, personality, and social class.
Buyer’s behaviour can be defined as the decision-making process and physical activity involved in acquiring, evaluating, using and disposing of goods and services. This definition clearly brings out that it is not just the buying of goods/service that receives the attention of consumer’s behaviour but the process starts much before when the goods are acquired or bought. A process of buying starts in the minds of the consumer, which leads to the finding of alternatives between products in State of Eritrea that can be acquired with their relative advantage and disadvantages.

**Overall Consumer Electronics Market Position**

The growth of consumer electronics industry can be attributed to the increasing effect of state-of-the-art electronic devices in the market. Globally, consumer electronics industry is ushering in the dawn of convergence. It is the confluence and merging of hitherto separated markets of digital-based audio, video and information technology are removing the entry barriers across the market and industry boundaries. This convergence of technologies has resulted in a greater demand for consumer devices, be they portable, in-home (mobile phones, digital camera) or in-car (CD/DVD players), offering multiple functions. The revolution brought about by Digital technology in the globe has enabled the consumer electronics sector to profit from the growing interaction of digital applications such as: camcorders, DVD player/recorder, still camera, computers, LCD TV etc. It has also witnessed the emergence of mobile telecommunications technology, incorporating both digital visual and digital MP3 capabilities. The computer industry has also benefited by being able to make its way into consumer's living rooms. HDTV’s with VGA connections and SD/MMC card slots, personal media players, and Microsoft-based Media Centre PCs have pushed the two industries even closer together than before. The worldwide consumer electronics market consists of the total revenues generated through the sale of audio visual equipment and games console products designed primarily for domestic use. Audio visual equipment includes
CD players, DVD players/recorders, Hi-Fi systems, home theater, in-car entertainment systems, portable digital audio, radios, televisions and video recorders. Games consoles segment includes both domestic use and portable consoles. The global sale of consumer electronics in the year 2006 is $135.4 billion, which indicates 8% increase from 2005. By the year 2008, sales reached to $158.4 billion, up by 65% over 2000. In 2009, the global consumer market grew by reaching the value of $253.7 billion, the report revealed. It also forecasts the global consumer electronics market to increase 14.1 percent to have a value of $289.5 billion in 2014. The Asian Pacific region is the market leader wielding the biggest chunk of the market, closely followed by Europe. The European market share is expected to take a drubbing, due to the growing demand for consumer durables in the Asia Pacific consumer electronic market. Overall, Japanese companies have captured the consumer electronics market. For instance, world famous brands like Sony, Panasonic, JVC and Matsushita are all owned by Japanese manufacturers. Korean companies such as Samsung and LG are all strongly competing with the Japanese bandwagon for the past several years. Recently, market study finds that Samsung is the world's fastest growing electronic company.

Therefore, the study of buyers’ behaviour helps everybody in the globe. It is essential for marketers to understand consumers to survive and succeed in this competitive marketing environment. The following reasons highlight the importance of studying buyer behaviour as a research study:

The purpose of studying consumer behaviour is because of the role it plays in the lives of humans. Most of the free time is spent in the market place, shopping or engaging in other activities. The extra time is usually passed in knowing and thinking about products and services, discussing with friends and watching advertisements related to them. The usage of them significantly reveals our life styles.
Consumer behaviour is said to be an applied discipline as some decisions are significantly affected by their behaviour or expected actions. The two perspectives that seek application of its knowledge are micro and societal perspectives. The micro perspectives involve understanding consumer for the purpose of helping a firm or organization to achieve its objectives. The people involved in this field try to understand consumers in order to be more effective at their tasks. Whereas, the societal or macro perspective applies knowledge of buyers to aggregate the level faced by a mass or society as a whole. Hence, the behavioral study of buyers has significant influence on the quality and level of the standard of living. All these reasons suggest the need for study.

1.3. STATEMENT OF THE PROBLEM

Marketing is about satisfying consumers. Whether companies seek to gain a competitive edge or satisfy consumers’ needs, an understanding of consumer behaviour in State of Eritrea is a pre-requisite of good practice. As Atticus Finch in Harper Lee's ‘To Kill a Mockingbird’ noted, "you never really understand a person until you consider things from his point of view and until you climb into his skin and walk around it", consumer behaviour theory provides glimpses of consumers’ point of view and allows companies to understand consumers as individuals, information searchers and decision-makers. Being in tune with Eritrea, consumers are a must for businesses. However, Jon Weaver, the Marketing Manager at Bournemouth Borough Council thinks that understanding consumer’s wants is a big challenge. A new trend has emerged in the world where more and more product outcomes are venturing as market offerings in all kinds of businesses, agriculture and other useful areas. Due to the spread of innovations, technology and communication as well as new free trade practices that changes product offerings are fast coming out of the web of traditional activities to high level non-traditional activities especially, in the area of durability products. All these signs indicate
that Eritrean buyers are responsive to changes and are well positioned to take advantage of these situations.

The State of Eritrea is effectively functioning under the rule of President in an authoritative style. The needs and wants of the public are keenly observed by the government and fulfilled systematically. Since the common people are under controlled environment with restricted earnings, they lead to simple lifestyle. After globalization, the government introduced free marketing trade for all goods including consumers durable and specialty items. The sudden change in the market scenario finds difficult for the consumers to understand the prevailing markets, particularly, durable goods availability with various brands. The Eritrean consumers are not having adequate awareness of electronic durable goods and its usage in the daily life. At this juncture the sellers of various branded electronic goods finds difficult to convince the mindset of the Eritrean consumers to buy and utilize the electronic durables.

The new millennium is in the midst of explosive change, witness rapidly changing Eritrean market conditions, volatile equity markets, reconstructed value chains and new global competitors. Competition is an emerging business issue in the recent global business because large numbers of manufacturers enter into durable industry. Satisfying consumers’ requirements with desirable goal is very challenging task in today’s business environment. However, confusion reigns about exactly what consumer satisfaction is, how to best implement it, or even what role it should play in enhancing buyers’ behaviour. Against this background, it will be worth undertaking a study to evaluate the behaviour of Eritrean buyers’ regarding select electronic durable goods.

A number of advances in the analysis of durability have appeared. However, some areas of misperception and inaccuracy with regard to the implications of durability. It was learnt that not many studies have been made on African nation’s buyers’ behaviour related to durable goods. Evidently, it is
in the embryonic stage of development. Research in the area is scant and issues are not yet clearly formulated and adopted coherently. Hence, the researcher has made an attempt to study buyers’ behaviour in response to select electronic durable goods confined to Asmara city (capital of State of Eritrea) for the reasons of academic viability as well as purposeful consideration. A study of this kind is needed to facilitate and understanding of buyers’ behaviour of African nation which has different types of culture, values, interest, and economic background compared to Asian and European countries. The study on Asmarian buyers’ behaviour helps to know, where the good customers are, what they want, how they purchase and react to the product. The study also helps to know, how various marketing activities are to be performed with regard to various multi cultural buying behaviour.

In this context, the following questions were raised:

1. To what extent the demographic and socio-economic factors influence the level of Asmarian buyers’ behaviour of electronic products?

2. How far the Asmarian buyers are aware of various kinds of electronic products available in the market?

3. Which kind of electronic products is mostly needed by the Asmarian buyers and how long they are using such kind of products?

4. What are the reasons of not purchasing of electronic products by the Asmarian people?

5. What are the elements leads to Asmarian consumers’ decisions while purchasing of electronic products?

6. Which brand is mostly preferred by the Asmarian buyers, while purchasing of electronic products?
1.4. OBJECTIVES OF THE STUDY

The following are the objectives of the study:

1. To study the level of product awareness and utilization of selected electronic durable products.

2. To analyze the factors influencing to buy the selected electronic durable goods among the Asmarian buyers.

3. To ascertain the level of satisfaction in utilizing the selected electronic durable goods.

4. To identify the common problems faced by the Asmarian buyers on selected electronic durable goods.

5. To suggest better ways and means for effective marketing strategies for buying electronic durables.

1.5 HYPOTHESIS

Hypothesis-tested research studies (experimental studies) are those where the researcher tests the hypothesis of casual relationship between variables. Such studies require procedures that will not only reduce bias and increase reliability, but will permit drawing inferences about causality. Professor R.A. Fisher Begun such designs when he was working at Rothamsted Experimental Station (Centre for Agricultural Research in England). Professor Fisher found that by dividing agricultural fields or plots into different blocks and then by conducting experiments in each of these blocks, the information collected and inferences drawn happen to be more reliable. This fact inspired him to develop certain experimental designs for testing hypotheses concerning scientific investigation.
In this context, the following hypothesis were raised,

1. There is no significant relationship between the age of the respondents and their level of influence on Asmarians’ buying behaviour of durable electronic products.

2. There is no significant relationship between the gender of the respondents and their level of influence on Asmarians’ buying behaviour of durable electronic products.

3. There is no significant relationship between the living area of the respondents and their level of influence on Asmarians' buying behaviour of durable electronic products.

4. There is no significant relationship between the marital status of the respondents and their level of influence on Asmarians' buying behaviour of durable electronic products.

5. There is no significant relationship between the family nature of the respondents and their level of influence on Asmarians' buying behaviour of durable electronic products.

6. There is no significant relationship between the family size of the respondents and their level of influence on Asmarians' buying behaviour of durable electronic products.

7. There is no significant relationship between the educational qualification of the respondents and their level of influence on Asmarians’ buying behaviour of durable electronic products.

8. There is no significant relationship between the occupational status of the respondents and their level of influence on Asmarians’ buying behaviour of durable electronic products.
9. There is no significant relationship between the monthly income of the respondents and their level of influence on Asmarians' buying behaviour of durable electronic products.

10. There is no significant relationship between the wealth position of the respondents and their level of influence on Asmarians' buying behaviour of durable electronic products.

1.6 RESEARCH METHODOLOGY

Marketing research in Asmara city – State of Eritrea is the systematic design, collection, analysis and reporting of data and findings relevant to a specific marketing situation facing the company.

Research in common parlance refers to a search for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. In fact, research is an art of scientific investigation. The Advanced Learner’s Dictionary of Current English lays down the meaning of research as a careful investigation or inquiry especially through search for new facts in any branch of knowledge. Redman and Mory define research as a “systematized effort to gain new knowledge.” Some people consider research as a movement from the known to the unknown. It is actually a voyage of discovery.

Research is an academic activity and such a term should be used in a technical sense. According to Clifford Woody research comprises defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organizing and evaluating data; making deductions and reaching conclusions to determine whether they fit the formulating hypothesis. D. Slesinger and M. Stephenson in the Encyclopedia of Social Sciences define research as “the manipulation of things, concepts or symbols for the purpose of generalizing to extend, correct or verify knowledge, whether that knowledge aids in
construction of theory or in the practice of art.” Research is thus an original contribution to the existing stock of knowledge making for its advancement. It is the pursuit of truth with the help of study, observation, comparison and experiment. In short, the search for knowledge through objective and systematic method of finding solution to a problem is research. The systematic approach concerning generalization and the formulation of a theory is also research. As such the term ‘research’ refers to the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting facts or data, analyzing the facts and reaching certain conclusion either in the form of solutions towards the concerned problem or in certain generalization for some theoretical formulation.

1.6.1 RESEARCH DESIGN

A research design of Asmara city is the detailed blueprint used to guide a research study toward its objectives. The process of designing a research study involves many interrelated decisions. The most significant decision is the choice of research approach, because it determines how the information will be obtained. To design something also means to ensure that the pieces fit together. The achievement of this fit among objective, research approach, and research tactics is inherently an iterative process in which earlier decisions are constantly reconsidered in light of subsequent decisions.

The methodology of research indicates the general pattern of organizing the procedure for gathering valid and reliable data for the purpose of investigation. The methodology of this study includes the description of Asmara city research design, sample size, sampling technique, development and description of tool, data collection procedure and method of analysis.

The validity of research depends on the systematic method of collecting the data and analyzing them in a sequential order. In the present study,
extensive uses of both primary and secondary data were collected systematically.

Field survey method was employed to collect primary data from 1000 respondents living in and around Asmara City, State of Eritrea. For this purpose a well-structured questionnaire was used for collecting the data.

1.6.2 AREA OF THE STUDY

The researcher has taken Asmara city, the capital of State of Eritrea, one of the main city in the African union. The study considered all those households of Asmara City, which use or not use of various consumer durable items as population. The researcher has adopted Cluster Sampling Procedure for defining the entire population area, for which the study area was divided into five zones viz., North, East, West, South and Central zones of Asmara based on geographical division.

1.6.3 SAMPLING METHOD

First-hand information for the present Asmara city research has been collected from the respondents. For this purpose the universe comprised of the entire city of Asmara i.e. all the areas. Since, it was not feasible to study the entire Asmara; the researcher drew a sample. To make the sample representative, researcher used Stratified random sampling technique. Therefore, researcher divided the entire Asmara into five zones as divided by the government of Eritrea on geographical basis. Four areas from each zone were chosen at random and further four streets were randomly chosen from each area, which were divided into two categories i.e. commercial streets and non-commercial streets. From each selected area, the required number 25 percent of households was selected based on Judgement Sampling (or) Purposive Sampling by using some common criteria like reference groups, subject knowledge, occupational status and their attitude to co-operate for this
study. This totaled into one thousand respondents in all, which was collected for the time period of one year. Hence, it is finally derived that the sample size chosen for this study was 1000 sample respondents.

### 1.6.4 SOURCES OF DATA COLLECTION

The study uses both primary and secondary data

**Primary data**

The major source of the data used to carry out the analysis is primary data. In order to fulfill the objectives set out; a sample study was undertaken regarding the Asmara City- State of Eritrea by the use of well-framed questionnaire and got them duly filled in. Field survey method was employed to collect the primary data from 1000 respondents through well-framed questionnaire. The respondents with varying background in Asmara city based on their demographic aspects like age, educational qualification, experience, income, marital status, family size, etc were selected for the study.

A unique feature was that all the 1000 respondents filled in the questionnaire with much zeal. This is due to the high level of involvement and interest among the respondents and the researcher’s friendly approach with them. While scrutinizing the questionnaire to take forward to the analysis part, unfortunately 10 of the questionnaires are got rejected due to reasons like incomplete filling of questionnaire, biased response, and so on. Finally, the researcher taken into account for the analysis is 990 respondents.

**Secondary data**

Though the core of the present work is dependent on the primary data, the study, like any other research work, uses some secondary data for better understanding of the Asmarian buyers’ behaviour of the study area. The secondary data namely literature relating to the study were gathered from
national and international journals, newspapers, magazines, articles, research reports and various other records. The latest information was gathered from well-equipped libraries in Asmara (State of Eritrea), Bangalore, Coimbatore, and Chennai and also from websites on the internet. They were utilized to get necessary and latest information required for the study. A number of standard textbooks were studied in the domain of Asmara city buyers’ behaviour.

1.6.5 DISCUSSION AND INFORMAL INTERVIEW

In order to know the buyers’ behaviour of Asmara city people and their buying pattern towards the durable electronic goods, several rounds of discussion were held with college teachers, government & private employees, students, and general public. For this purpose, a good relationship had been established with various persons in different work and market places.

1.6.6 TOOLS AND DATA COLLECTION

By virtue of a mass of data obtained from the research survey of Asmara city, as well as data from secondary sources collected are presented in the present report, descriptive and analytical research were considered to be the most appropriate for the study. The research problem and questionnaire were all framed accordingly. The suggestions offered in the final chapter of the present research report emerged for the inferences drawn from the sample respondent’s information about the Asmarian buyers’ behaviour. The questionnaire for this research consists of different variables covering different statements with five point rating scale and ranking technique.

1.6.7 CONSTRUCTION OF QUESTIONNAIRE

The key aspects of the present research to be studied were identified for the preliminary interview (Pilot Study) with few selected respondents. The questionnaire so drafted was circulated among some research experts and research scholars for a critical view with regard to the format, sequence,
wording and the like. The questionnaire was drafted in the light of their comments. The questionnaire consisted of 30 questions, of which 20 referred to the Asmarians’ behaviour in possessing durable goods (viz, digital camera, DVD player, iPods, mobile phone, personal computer, refrigerator, television, washing machine, air conditioner, camcorder, iPhone, iPod video players, microwave, Home theatre, personal laptop and plasma TV). The last ten questions referred to the respondents’ (and their household) demographic characteristics. The intent was to encompass those product categories, the consumption of which can establish differences in the Asmarians’ behaviour of different people of Eritrea. Not only were the usage and possession of a product analyzed, but also the type of the consumed product, the importance of certain criteria when choosing and purchasing the product, usage frequency, satisfaction level, and also the brand preference.

1.6.8 PRE-TEST OF QUESTIONNAIRE

The questionnaire meant for the respondents were pre-tested with fifty respondents. After pre-testing, necessary modifications were made in the questionnaire to fit in the track of the present study. The primary modification were made in the questionnaire is finalizing and grouping of number of electronic products taken for the purpose of study. Since, it was not feasible to study the entire electronic products; the researcher drew a sample of selected electronic products. The result of pilot study helps the researcher in finalizing and dividing the products into two main categories i.e. 1. Essential electronics - the products which possessed the status of more than 50 percentages of users fall under essential category in this, researcher found eight products viz. digital camera, DVD player, iPods, mobile phone, personal computer, refrigerator, television, and washing machine and 2. Luxury electronics - the products which possessed the status of less than 50 percentages of users fall under luxury category in this researcher found eight products viz. air conditioner, camcorder, iPhone, iPod video players, microwave, Home theatre, personal
laptop and plasma TV. This totaled into around sixteen electronic durables were chosen for this study.

1.6.9 FRAME WORK OF ANALYSIS

The core of the study being A study on Buyers’ Behaviour of Selected Electronic Durables With Special Reference to Asmara City – State of Eritrea, the study centres around the dependant variables viz., level of purchasing behaviour and satisfaction.

1.6.10 APPROACH TO ASSESS THE EXTENT OF UTILIZATION

The differences in the extent of Asmara people behaviour related to electronic goods purchase by different types of respondents based on their age, educational qualification, experience, income level, family size, marital status, nature of family was studied by means of percentage analysis, averages, ranges and standard deviation, chi-square test as and when they were found necessary. Further, multivariate analysis viz. Factor analysis, Cluster analysis, and Multiple Regression Analysis were employed in this study. In addition to these tools, Henry Garrett ranking technique was employed to ascertain the attributes influencing in choosing of the brands and also to find the common problems faced by the Asmarian buyers in using of electronic products. The different tools of analysis and the variables are as follows:

Chi-square Test

The Chi-Square test for independence, also called Pearson's Chi-square test or the Chi-square test of association is used to discover if there is a relationship between two categorical variables. It is an important non-parametric test and as such no rigid assumptions are necessary in respect of the type of population. It require only the degrees of freedom (implicitly of course the size of the sample) for using this test. As a non-parametric test, chi-square can be used as a test of goodness of fit and as a test of independence.
In this study, the degrees of influence of the following independent variables pertaining to Asmarian buyers’ behaviour and influencing level of electronic durables are

\[ X_1 = \text{Respondents Age} \]
\[ X_2 = \text{Respondents Gender} \]
\[ X_3 = \text{Respondents Residence area} \]
\[ X_4 = \text{Respondents Marital Status} \]
\[ X_5 = \text{Respondents Nature of Family} \]
\[ X_6 = \text{Respondents Size of the Family} \]
\[ X_7 = \text{Respondents Educational level} \]
\[ X_8 = \text{Respondents Occupational Status} \]
\[ X_9 = \text{Respondents Monthly Income} \]
\[ X_{10} = \text{Respondents Wealth position} \]
\[ X_{11} = \text{Respondents Reason for Purchase of Electronics} \]

In order to identify the factors influencing the respondents and their level of satisfaction by selected respondents, Chi-square (\( \chi^2 \)) test was used, and the formula of Chi-square test is furnished below:

\[
(\text{Chi-square}) \chi^2 = \sum \frac{(O_{ij} - E_{ij})^2}{E_{ij}}
\]

With degrees of freedom (D.F) = (c – 1) (r – 1)

Where,

\[ O_{ij} = \text{Observed frequency of the cell in } i\text{th row and } j\text{th column.} \]
\[ E_{ij} = \text{Expected frequency of the cell in } i\text{th row and } j\text{th column.} \]
\[ C = \text{Number of Columns.} \]
\[ R = \text{Number of Rows.} \]
Multiple Regression Analysis

Multiple regression is a statistical technique that allows the researcher to predict someone’s score on one variable on the basis of their scores on several other variables. When there are two or more independent variables, the analysis that describes such relationship among the variables is called the multiple regression. This analysis is also adopted when one dependent variable is performing the function of two or more independent variables. In multiple regression, a linear composite of explanatory variables is formed in such a way that it has maximum correlation with an active criterion variable. The main objective for using this technique is to predict the variability of the dependent variable based on its co-variants with all the other independent variables. For example, in this study it might help in predicting how much an individual enjoys their products. Variables such as age, gender, and marital status, nature of the family, educational qualification, occupational status, income, and socio-economic status might all contribute towards Asmari buyers’ behaviour and satisfaction. If the researcher collected data on all of these variables, perhaps by surveying a few hundred members of the public, the researcher would be able to see how many and which of these variables gave rise to the most accurate prediction of Asmari buyers’ behaviour and satisfaction. It is useful in predicting the level of the dependent phenomenon, if the levels of independent variables were given, the linear multiple regression problem is to estimate the coefficients \( \beta_1, \beta_2, \beta_3, \ldots, \beta_j \), and \( \beta_0 \) such that expression,

\[
Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_j X_k
\]

Provided a good estimate of an individual \( Y \) score based on the \( X \) scores.

Where,

\[
\begin{align*}
Y & = \text{Level of influence on buying behaviour} \\
X_1 & = \text{Respondents Age}
\end{align*}
\]
$X_2 = \text{Respondents Gender}$

$X_3 = \text{Respondents Residence area}$

$X_4 = \text{Respondents Marital Status}$

$X_5 = \text{Respondents Nature of Family}$

$X_6 = \text{Respondents Size of the Family}$

$X_7 = \text{Respondents Educational level}$

$X_8 = \text{Respondents Occupational Status}$

$X_9 = \text{Respondents Monthly Income}$

$X_{10} = \text{Respondents Wealth position}$

$X_{11} = \text{Respondents Reason for Purchase of Electronics}$

And $\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_j X_k$ are the parameters to be estimated.

**Factor Analysis**

Factor analysis is a statistical approach that can be used to analyze interrelationships among a large number of variables and to explain these variables in terms of their common underlying dimensions (factors). The statistical approach involving finding a way of condensing the information contained in a number of original variables into a smaller set of dimensions (factors) with a minimum loss of information (Hair et al., 1992). It is also a method used to transform a set of variables into a small number of linear composites, which have maximum correlation with original values. Factor analysis is used to study a complex product or service in order to identify the major characteristics or factors considered important by the respondents. The purpose of factor analysis is to decide the responds to the several numbers of statements, which are significantly correlated. If the responses to the several statements are significantly correlated, it is believed that the statement measures some factors common to all of them.
Factor analysis can only be applied to continuous variables (or) intervals scaled variables. A factor analysis is like regression analysis as it tries to “best fit” factors to a scatter diagram of data in such a way that factors explain the variance associated with responses to each statement. In this study factor analysis was implemented by the researcher in analyzing the factors influencing the purchase habits of the Asmarian buyers.

**Henry Garrett Ranking Technique**

This technique was used to evaluate the attributes influencing the Asmarian buyers towards brand preference of electronic products and problems faced by the consumers in using electronic products. In this method, the respondents were asked to rank the given attributes and problems according to the magnitude of the attribute and common problem. The orders of merit given by the respondents were converted into ranks by using the following formula

\[
\text{Percentage Position} = \frac{100 \ (R_{ij} - 0.5)}{N_j}
\]

- \(R_{ij}\) = Rank given for \(i\)th item and \(j\)th individual
- \(N_j\) = Number of items ranked by \(j\)th individual

The percentage position of each rank thus obtained was converted into scores by referring to the table given by Henry Garrett. Then for each factor the scores of individual respondents were added together and were divided by the total number of respondents for whom the scores were added. These mean scores for all the factors were arranged in the order of their ranks and consequently inferences were drawn on the basis of scores of these factors.

**Cluster Analysis**

Cluster analysis is a major technique for classifying a ‘mountain’ of information into manageable meaningful piles. It is a data reduction tool that
creates subgroups that are more manageable than individual datum. Like factor analysis, it examines the full complement of inter-relationships between variables. Cluster analysis classifies a set of observations into two or more mutually exclusive unknown groups based on combinations of interval variables. The purpose of cluster analysis is to discover a system of organizing observations, usually people, into groups where members of the groups share properties in common. It is cognitively easier for people to predict Asmara people behaviour or properties of people or objects based on group membership, all of whom share similar properties. It is generally cognitively difficult to deal with individuals and predict Asmara people behaviour or properties based on observations of other behaviors or properties.

Cluster analysis classifies unknown groups while discriminant function analysis classifies known groups. The procedure for doing a discriminant function analysis is well established. There are few options, other than type of output, that need to be specified when doing a discriminant function analysis. Cluster analysis, on the other hand, allows many choices about the nature of the algorithm for combining groups. Each choice may result in a different grouping structure.

1.7 SCOPE OF THE STUDY

Asmara city marketing scholars and practitioners for many years have studied the consumer for a better understanding of “buying behaviour”. The consumer has often been viewed as a “black box” designating the relative complexity and ambiguity of the decision-making process. This study has a tremendous scope, as the Asmara markets having potential to sell, many household electronic companies are gearing up to penetrate into the markets. Developed nations markets are already saturated with large variety of products and on the other side the potential in the countries of African continent is increasing at a very rapid pace. The study will help the overseas marketers to
take advantage of the favorable image that they maintain in both the segments. The study is also of great use for domestic marketers in terms of thinking strategies to combat the effect of ‘electronic goods’. The primary portion of research in this area has been concerned with the awareness and general opinion of electronic products among the people of Asmara. It will also identify the electronics owned and period of using those electronics and also reason for now buying the products. This will also identify the factors influencing the purchase of electronics and its satisfaction level and also brand preference of those items. This study also focused on common problems faced in using the products and if any, replacement idea of the products and what could be the reason for it.

Finally, the study of Asmanian buyers’ behaviour also provides an insight into how consumers arrive at the purchase decision and the variable which influences their decision. Once the influencing variables have been identified, the marketer can manipulate them so as to induce in his Asmara buyers a positive purchase decision and behaviour.

1.8 PERIOD OF THE STUDY

The study was confined to a period of four years. Reviewing the relevant literature and consequent framework took one year. Preparation of the questionnaire and conducting the pilot study consumed three months. The data collection from the primary sources consumed a period of one year. Preparing the master table and data analysis took another six months period. The interpretation and the presentation of the data in the form of the report covered six months. The last nine months were used for rough drafting and in making out the final form of thesis.
1.9 LIMITATIONS OF THE STUDY

The study is limited only to Asmara city and hence, the findings and suggestions drawn in this study may or may not applicable to other cities and zobas of State of Eritrea. Further, survey method was adopted for collecting the data for this study, which has its own limitations. Out of total population only 1000 respondents were selected to elicit first-hand information. In view of time and monetary constraints, it was not possible to contact more than the selected number of respondents. The respondents do not maintain any records for the areas like duration of product using, decision making process handled while purchase, experience of satisfaction level, etc and so they had to recall their memory and furnish the information for the query put forth by the researcher. Hence, the data collected were subject to recall bias. Further, the study is limited to selected electronic durable goods and hence, the findings and suggestions drawn in this study may or may not applicable to other durable electronic products.

1.10 CHAPTER SCHEME

This study has been divided into five chapters:

1. The first chapter deals with the introduction and design of the study.

2. The second chapter presents the review of literature.

3. The third chapter highlights the overview of consumer behaviour and area of study.

4. The fourth chapter discusses the data analysis and interpretation.

5. The fifth chapter recapitulates the key findings, suggestions and conclusion.