



**ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE**

**Department of Marketing Management**

**The Effect of Product packaging on Consumer Buying Behavior: In  
the Case of Repi Wilmar soap and detergent S.C.**

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**June 2019**

**Addis Ababa, Ethiopia**

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the Case of Repi Wilmar soap and detergent S.C.**

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**Advisor: Temesgen Belayneh (PhD)**

**A Thesis Submitted to the School of Graduate Studies of Addis  
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**GRADUATE STUDIES MA PROGRAM**

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## Statement of Certification

This is to certify that Ms. Hayat Shelemew Kedir has carried out her research work on the topic entitled **The Effect of Product packaging on Consumer Buying Behavior: In the Case of Repi Wilmar soap and detergent S.C.** The work is original in nature and is suitable for submission for the award of Master's Degree in Marketing Management.

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Date: \_\_\_\_\_

## **Statement of Declaration**

I hereby declare that The Effect of Product packaging on Consumer Buying Behavior: In the Case of Repi Wilmar soap and detergent S.C. project is wholly the work of Hayat Shelemew. 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. And the study has not been submitted for award of any Degree or Diploma Program in this or any other Institution. It is in partial fulfillment to the requirement of the program Master's Degree in Marketing Management.

\_\_\_\_\_  
Hayat Shelemew

Date: \_\_\_\_\_

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## ***Abstract***

*Packaging plays a vital role in today's business environment and is considered as one of the influencing factor on consumers buying behavior. The purpose of this study was to explain the effect of product packaging on consumer buying behavior of Repi Wilmar soap and detergents. The researcher used quantitative approach in order to achieve the objectives of this study. The researcher also used explanatory research since it tries to examine the relationship of independent variables color, graphics, size, shape, information and technology with the dependent variable consumer buying behavior. Using convenience sampling a structured questionnaire written both in Amahric and English was distributed to 384 customers of Shoa supermarket buyers in Addis Ababa. 366 questionnaires where returned which gave the response rate of 95%. But during the data cleaning process only 355 questionnaires were used for statistical analysis. SPSS 20.0 was used to analyze the data collected. The Data collected were analyzed using Pearson correlation and multiple regression. The finding shows that all the six packaging elements packaging color, graphics, size, shape, products information and technology have positive and moderate relationship with consumer buying behavior with  $p < 0.01$  and Pearson Correlation value of  $r = 0.472$ ,  $r = 0.455$ ,  $r = 0.569$ ,  $r=0.481$ ,  $r = 0.623$  and  $r = 0.584$  respectively. The finding also shows that color, size, information provided and technology used on packaging have a positive and significant effect on consumer buying behavior with beta value of 0.141, 0.145, 0.308, 0.198. Whereas, graphics and shape of packaging had a positive but insignificant relationship with consumer buying behavior of Repi Wilmar soap and detergent products. Based on the result of the study, it was recommended that soap and detergent companies should highly focus on packaging elements which have high impact on consumer buying behavior.*

**Key words:** *Packaging, Consumers buying behavior*

# Chapter 1

## Introduction

### 1.1. Background of the study

In the prehistoric man cared less about packaging. This was due to the fact that commodities were consumed in their raw states either on the spot or sometimes carried to their abodes or caves in their bare hands. It is also probably because society had not developed to the extent that there was no competition as regards the manufacture and sale of products. With evolution, however, packaging in one form or other developed gradually. Packaging started in a different form from what we know today. The earliest form was by the use of animal skins, shells, broad leaves and hard "skin" fruits and vegetables. Liquids were stored in containers made from animal skins, hollowed out logs, gourds, coconuts and shells ("History of Packaging", 2006).

The first ever branded package was introduced in England in 1746 by one Dr. Robert James who packaged his "Fever-Powder" in a box for retailing (Ariev, 2007). Other people followed suit by introducing other forms of packaging by using 12 different materials such as metal and glass. A. F. Pears, an Englishman established the first soap packaging company (Ariev, 2007). Yardley of London also packaged his famous lavender water in glass bottles, whilst Crosse and Blackwell also branded olive oil and mustard in jars (Ariev, 2007). In recent years packaging has developed well beyond its original function as merely of product protection, and now plays a key marketing role in developing shelf-appeal, providing product information, and establishing brand image and awareness.

According to Blackwell, Miniard and Engel (2009) the buying behavior of consumers is a complex and frequently changing issue that is hard to define. Engel, Blackwell and Miniard (1986) define consumer buying behavior as the acts involved when an individual obtains, uses and disposes economic goods and services including the decision-making processes that comes before the buying behavior. The expand view of consumer embrace much more than the study of why and what consumer buy, but also focuses on how marketer influence consumers and how consumers use the products and services (Ampuero and Vila, 2006). 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. However, the interpretation and decision making is different among individuals and also influenced by

internal consumer behavior (perception, attitude, and motivation) and external factors (family roles, peer influence and group influence) (Seyed and Mohammad, 2014).

Nowadays in competitive environment the role of package has changed due to increasing self-service and changing consumers' lifestyle. Firms' interest in package as a tool of sales promotion is growing increasingly. Package becomes an ultimate selling proposition stimulating impulsive buying behavior, increasing market share and reducing promotional costs (Mitul and Bhavesh, 2012). Packaging provides the manufacturer with the final opportunity to persuade prospective buyers prior to brand selection, because shoppers are exposed to packages just as they are in other forms of promotion. Also, consumers can easily overcome the challenge of visually assessing volumes contained within a variety of shapes because most product labels provide the information via packaging (Ampuero and Vila, 2006).

According to author in (Rundh, 2005) package attracts consumer's attention to particular brands, enhances its image, and influences consumer's perceptions about products, thus packaging a certain product based on your consumer needs, the producer can use labeling or image description to arouse the interest of the consumer to purchase that product, when the consumer is moved by the image or label used to package the product he or she desires or makes a purchase for that product that is needed.

Soap and detergent industries represent one of the industries where packaging as a marketing instrument plays a significant role. The final step in the manufacture of soaps and detergents is packaging. Bar soaps are either wrapped or cartooned in single packs or multipacks. Detergents, including household cleaners, are packaged in cartoons, bottles, pouches, bags or cans. The selection of packaging materials and containers involves considerations of product compatibility and stability, cost, package safety, solid waste impact, shelf appeal and ease of use.

Every one of the manufacturers comes with their own brand to the market, and more so to force their own brand into the customers (Bernard R. and Olivier D., 2005). Keeping this fact, soap and detergent sector is preferred to evaluate consumers 'assessment of packaging value.

The consumer buying behavior is dependent on the packaging and on its features. Packaging elements like color, graphics, shape, size, information provided and technology are taken as predictors. The aim of this research is to investigate the effect of packaging on consumers buying behavior.

## **1.2. Background of the company**

REPI SOAP & DETERGENT S.CO formerly known as REPI Soap Factory was established in 1974. The company's main vision was to compete against local and imported powder detergent through its famous brand 'ROL'. Due to the machinery's age and technological issues there was an issue of wastage which nearly bankrupted the company but thanks to a pioneering idea of creating a detergent bar (Cake) in 1979, Repi gave birth to a new line of product and a new brand 'AJAX'. Production of a liquid detergent was then introduced in 1994 under the brand name "LARGO".

Following the earmarking of Repi Soap Factory by the government for joint venture partnership, LINA PLC undertake a series of studies on the factory with the aim of concluding a joint venture agreement with the government. The joint venture arrangement lasted one year followed by a full takeover of the share company LINA PLC after settling by the Ethiopian government. In July 2014 Wilmar International a Singapore based Agro Business group acquired 50% ownership in the company.

Repi Wilmar products are classified into three different categories. Home care, Laundry care, and personal care. Home care include products like Largo liquid detergent, Ajax Dish wash, Ajax Window cleaner and Ajax Scouring powder. Largo liquid detergent is the first liquid detergent that has been introduced in 1994. It has more than 24 years' market presence. This product can be used for cloth wash, floor wash and for kitchen utensils. Ajax Scouring powder is a multi-purpose cleaner it can be used to clean Kitchen sink, Bathroom tubs, Pots, Tile, marble, ceramic and also Toilet bowls. Laundry care include Diva multipurpose soap, ROL powder detergent and Essex auto wash. Diva is a multipurpose soap which can be used for cloth and body since it is combined with fresh and long lasting perfumes. Essex is a powder detergent designed specifically for machine/auto washes specially for top load machine. This product use less foam, water and also help to wash at lower temperatures combined with high stain removal power. Personal care includes Tiffany beauty soap. It is a feminine beauty soap product inspired by fine fragrance perfume.

Repi Wilmar promotes the ideas of Green Wilmar which is promoting safety, health and environment at workplace. Safety and environment issues are the core values for the business and its given priority above all. This the company is committed to ensure continuous high level of health, safety and welfare of our workers and anyone else may be affected by the operation in an environmental friendly manner.

### **1.3. Statement of the problem**

Product packaging has come to play an important role as a brand communication vehicle. Multiple factors such as color, graphics, size etc. can influence a purchasing decision of a customer. One of the visual elements of packaging that influences consumer buying behavior is printed information. Vakratsas and Ambler (1999) highlight that more highly involved consumers evaluate printed information and rely on message argument quality to form their attitudes and purchase intentions. Deliya and Parmar (2012) give a general conclusion that, consumer with low involvement usually purchase without carefully examining brand and printed information.

When we come to our country Addis Ababa, Ethiopia the information written on the package of most locally produced soap and detergents is printed in English. Even when we come to the researchers' case study, Repi Wilmars soap and detergent product information where it was made, when it was made, what it contains or how to use the product is written in English. On some product line, even the expiry date is written in European calendar. (See appendix 7). According to (CIA World Fact book, 2018) an adult literacy rate which is age 15 and over who can read and write in Ethiopia is 49.1%. In this case, most of the population aren't educated so it will be difficult for customers to understand how to make use of the products. So it is clear that there is high potential in communication gap among users of the product and producers of the product as the language they use doesn't match and it is obvious that English is not mother tongue for Ethiopians.

Furthermore, studies conducted (Andualem, 2017; Mengistu,2017; Teklemariam,2016; Mazengia, 2014) on this subject have been very few in the context of Ethiopia. As far as the researcher's knowledge there is no research done on product packaging in the case of soap and detergent products in Ethiopia. Therefore, this study tries to fill the knowledge gap.

### **1.4. Research questions**

#### **1.4.1 Main Research Questions**

- What is the effect of product packaging on consumers buying behavior of soap and detergent products?

#### **1.4.2 Sub-Research Questions**

- i. How does visual elements (color, graphics, shape, and size) influence consumers buying behavior?

- ii. How does informational elements (information provided and technology) influence consumers buying behavior?

## **1.5. Objective of the study**

### **1.5.1 General objectives**

The main objective of the study is to assess the effect of product packaging on consumers buying behavior on Repi Wilmar soap and detergent products.

### **1.5.2 Specific objectives**

- i. To determine the effect of visual elements (color, graphics, shape, and size) on consumers buying behavior.
- ii. To examine the effect of informational elements (information provided and technology) on consumers buying behavior.

## **1.6. Significance of the study**

This research work is significant in many ways. Academically, the findings in this research will contribute to the existing body of knowledge as a referral material and will help clarify on the role of packaging and how it influences behavior pattern of consumers. Future researchers will find this work beneficial because it is bound to contribute information and enlighten them on the usefulness of packaging. By investigating the role of packaging on buyer behavior this study will help marketers to realize in which way the packaging influences behaviors of buyer while buying a product.

## **1.7. Scope (Delimitation) of the study**

Geographically this study is delimited to major commercial supermarket in Addis Ababa. The supermarket chosen is Shoa supermarket. Conceptually the variables under study are graphics, color, shape, size, information provided and technology. Methodologically, explanatory research and quantitative approach using cross sectional survey design have been employed in this research to assess the relationship between product packaging elements and customer buying behavior. Using convenience sampling a structured questionnaire written both in Amahric and English was distributed to 384 customers of Shoa supermarket buyers in Addis Ababa.

## **1.8. Limitation of the study**

First, regardless of the researcher's effort to contact the persons, the research did not include the organization or managements perspective of the study. Thus, the research was done from the customer's perspective only. Another limitation was lack of adequate research material conducted in this area within the country in the case of soap and detergent products. The study was also conducted only from the selected supermarket in Addis Ababa. Therefore, the findings of this study only describe those population who use the specified supermarket.

## **1.9. Definition of terms**

### **Packaging**

**Packaging:** is any container or closed that a product by it will be offered to the market for sale or by which necessary information about the product is transmitted to the consumer (Shahram, Hossein &Saeid M, 2013).

### **Consumer**

**A consumer:** is a person that acquires goods or services for direct use or ownership rather than for resale or use in production and manufacturing as defined by Silayoi and Speece (2007).

### **Consumer buying behavior**

**Consumer buying behavior:** is defined as the mental, emotional and physical activities that people engage when selecting, purchasing, using disposing of products and services in order to satisfy needs and desires (Schifinan & Kanuk, 2009).

### **Visual Elements**

**Visual elements** are the properties that affect the emotions of consumer the way they transmit the information which include color, graphics, shape and size. (Silayoi and Speece, 2007).

### **Informational elements**

**Informational elements** are those elements that transmit information which influences consumer's cognitive orientation. (Silayoi and Speece, 2007).

## **1.10. Organization of the study**

This paper is organized into five chapters. The first chapter is an introduction which consists background of the study, problem statements, research question, objectives, significance of the study, scope and limitation of the study. The second chapter address review of related literatures which consists theoretical backgrounds, review of previous empirical studies and conceptual frameworks. The third chapter consist the research methodologies which will be applied in the study. Chapter four will on focus on the result and discussion of the study. The fifth chapter will focus on major findings, conclusion and recommendation for future research.

# **Chapter 2**

## **Review of Related Literature**

### **Introduction**

This chapter presents review of literature that forms the basis of this study. The chapter builds on theoretical definitions and empirical reviews of past studies that have been done, which help to construct for the conceptual framework.

### **2.1 Theoretical review**

#### **2.1.1. Packaging**

Packaging plays a vital role in today's business environment and is considered as one of the influencing factors on consumers buying behavior. It has developed into a communication tool and is considered as an important part of marketing. Packaging is considered as the fifth 'p' of marketing after product, price, promotion and place (Ladipo and Rahim, 2013). In the early years, the main purpose of packaging was to protect the product but nowadays it's also being used as a means for sales growing and attracting potential customer. The appearance of the package is believed to have a strong impact on influencing consumers' purchase decision than advertising (Mutsikiwa and Marumbwa, 2013).

Kotler (2000) cited in Nayyar (2012) defined packaging as the activities of designing and producing the container or wrapper for a product. This means that companies must monitor and change product packaging on a regular basis to ensure its continuous and increasing appeal to target audiences (Ladipo and Rahim, 2013; Oladele, 2012). Packaging plays a major role when products are purchased; after all, it is the first thing seen before making purchase choices (Kamaladevi, 2010).

According to Panwar (2004) Packaging is the act of containing, protecting and presenting the contents through the long chain of production, handling and transportation to their destinations in as good a state, as they were, at the time of production. Packaging now is regarded as an essential component of our modern lifestyle and the way business is organized. Packaging is widely used to sell a product and build a company's image in customers' knowledge. It is an important part of the branding process as it plays a role in communicating the image and identity of a company (Sajuyigbe, A.S., Ayanleke, S.O. and Ola O.S. 2013).

Kotler et al. (2008) explained that packaging is the most essential tool in 21<sup>st</sup> century to promote and position a product as a brand, attract the prospect customer's attention and deliver the actual value of product. Well packaging styles are showing company's unique value regarding the product (Underwood, Klein & Burke, 2001; Silayoi & Speece, 2004), also known as unique tool for their product differentiation. I.e. in the market customer chose the product from large area of range and stimulate the buying behavior of the consumer (Wells, Farley & Armstrong, 2007). Packaging of any product allows customers to physically meet the product at purchasing point and act as a visual and verbal factor of communication.

### **2.1.1.1. Role of product packaging**

According to Lee and Lye (2002) there are functional roles that are performed by packaging.

#### **Protection and Preservation**

Lee and Lye (2002) assert that protection and preservation are roles of packaging. These involve protection from environmental, mechanical and chemical poisoning and also form contamination. Deliya and Parmar (2012) highlight that packaging provides physical protection of the objects from shock, vibration, compression and temperature. In the same line, Deliya and Parmar (2012) assert that if the product is safeguarded from becoming dirty or avoiding smudging customer hands through contamination then it is said to be a clean package.

#### **Market Appeal**

Lee and Lye (2002) identified market appeal as another role of packaging. This is to say that packaging helps in improving people's perception about the product. Packaging is used to get the consumer's attention, promote and convey messages about the product's attributes whilst still on the shelf.

#### **Convenience**

Another role of packaging is to add convenience in distribution, handling, display, sale, opening, reclosing, use, and re-use (Deliya and Parmar, 2012). Lee and Lye (2002) describe the convenience offered by packaging namely; openability, reclosability, carrying and dispensing facilities.

## **Helps in Identification**

Lee and Lye (2002) state that packaging helps in identification and provision of information to customers. Thus, a good packaging must contain valuable product information that consumer may need to know, information on how to transport, use, recycle, or dispose of the package or product is often contained as a label on the package.

### **2.1.2. Packaging Materials**

The packaging material depends on what type of product you are going to send to your customer or loved ones. It is very important that the package you are sending should be safe in your packaging material. Surely you would never want your gift of glass or good-looking showpiece arrive to your receiver in bits and pieces. Small items can be packaged in envelopes but for bigger ones you need large size and more safe packaging materials. So that it would not get wrecked.

On the other hand, your packaging material should have attractive design. Attractive printing is very important because it gives good impression to everyone. And as you know many persons are involved in shipping and handling of your pack.

#### **2.1.2.1. Types of Packaging Materials**

##### **Plastic**

This is the most common packaging material and at the same time, one of the most difficult to dispose of. The common factors to all plastics are that they are light, strong, cheap to manufacture. It is for this reason that they are used so much as an alternative to cardboard glass packaging material. Almost 10% of our rubbish consists of different types of plastics. They are problem in landfills as they are bulky they contaminate and degrade slowly. Separated from the rest of the waste, they must be upgraded for the good of everyone.

##### **Metals**

It is appropriate for packaging foods (canned foods). For drinks, such as soft drinks, beers aluminum is mostly used. Tin plate is solid, heavy steel covered with tin to protect it against rust. It is used to package canned foods. It can be separated by magnets and should be recycled in all cases. Aluminum is attractive, light strong at the same time but requires a lot of raw materials energy to make it. For this reason, it

must be recycled. The majority of cans of soft drinks, lids aluminum foiled.

### **Brick carton**

A light strong air light packaging material ideal for transporting storage. Its complex composition makes it difficult to recycle. It's becoming the main packaging material used for basic foodstuffs. Complex packaging material, made up of several layers of plastics, paper aluminum. It is also difficult to recycle. It is mostly used mainly to keep drinks such as milk and juice.

### **Cardboard**

Appropriate for packaging materials wrapping preferable to "white cork". Its use may prove to be unnecessary when used for products which are already packaged sufficiently. In all cases, this packaging material is easy to recycle or reuse. It is used in the form of boxes, sheets corrugated cardboard.

### **Glass**

An ideal material for foods especially liquids. It is inalterable, strong easy to recycle. It is the traditional vessel in the home (jars, glasses and jugs). Its weight shape may involve some difficulties for transport storage.

## **2.1.3. Effects of Packaging on Consumer Purchasing Decision**

Consumers are strongly influenced by the packaging of products that they are considering buying. Marketers are well aware of this fact and go to great lengths to create packaging that will draw in consumers and convince them to buy the product. This dynamic leads to a riot of competing colors, shapes and promises in supermarkets and shopping malls across the land.

### **Size**

The size of a package influences buying decisions. A larger package gives a consumer the impression that they are buying more of whatever product is in it. Although many products are required to have the weight listed on the package, the size of the package itself has more of an impact on the psychology of the consumer. This fact sometimes leads to questionable practices, such as making packaging far larger than it needs to be, thus misleading the consumer and wasting material. Larger packages also take up more shelf space in a store, thus increasing the odds that a consumer will see the product and buy it

rather than a competing brand.

### **Positioning**

The positioning of a package within a retail environment influences its level of sales. Products that are shelved at eye level and in the front of the store sell better than those that are near the floor, up high or hidden in the back. Bright, eye-catching packaging in an eye-level location at the front of the store is the goal of every merchandiser. Average shoppers do not scour the store for products; they grab the first thing they see that fulfills their requirements. This is why positioning of this kind is effective.

### **Promises**

The packaging of a product is the ideal medium for promising the consumer all manner of things, from greater beauty to increased health to a more fulfilling social life. Food products are labeled as nutritious, containing eight vitamins, all-natural, or organic, depending on the demographic that the merchandiser is attempting to reach. Many of these promises are perfectly valid and accurate promotional techniques, while others walk a thin line between persuasion and deception. Marketing research departments base the promises that they put on packaging on what consumers want to hear. Promises are effective at increasing sales of a product. Shoppers seeking a particular effect from their purchases want to believe the claims that are made, and this makes them more likely to accept promises and to purchase the merchandise.

#### **2.1.4. Soap and Detergent Packaging Machines**

There are soap and detergent plants which offer fabrication of efficient and powerful machines at the unit. These soap and detergent plants unit is well equipped with sophisticated machinery and latest technologies. They make use of best grade of raw materials in developing products and strictly adhere to the industrial norms and standards. The packaging machines are as follows

##### **Soap Wrapping Machine**

The soap wrapping machine is widely used for wrapping and covering various products such as detergent bar, toilet soap and bundles. These special soap wrapping machines perform flawless at minimum cost with no index mechanism. Also, these machines are provided with in-built vacuum pump and run smoothly on single phase.

## **Cutting and Stamping Machine**

These cutting and stamping machines are highly cost effective and performance oriented.

## **Auto Case Packers**

Are designed for fully automatic carton erection, taping, product filling, closing and discharge. Stacking is done by two methods depending upon the type of the product Viz. The auto case packer machine works on a maximum speed of up to 240 pcs per minute.

## **Cage Mills**

They are specially designed rotating meshing pins stator and rotor called cage mills which are used to disintegrate the lumpy feed material before dispersing into flash dryer.

## **Soap and Detergent Lines**

In soaps and detergent lines, the industry is using products like sigma mixer, extruder and vacuum plodder for the manufacture of soaps and detergents.

## **Detergent Powder Mixing Machine**

Detergent powder mixing machines are used in manufacturing free flowing detergent powders. Based on latest technology the advanced detergent powder mixing machines incorporate main drive systems, and time and labor saving.

### **2.1.5. Constrains of Packaging**

**1. High cost involved in developing packages:** The cost involved in developing packages is very high. Developing effective packaging requires huge sums of money, packing materials such as metals, plastics, glass, cardboard and brick carton are very expensive and so some companies find it difficult to afford these materials. This is the basic flaw of packaging. The cost of purchasing these materials and the cost of developing is therefore passed on to consumers in the form of higher prices which at times retard sales.

**2. Problem of disposing of used containers:** How to dispose of used containers is also a big problem. This serves as a major contributor to the disposal solid waste problem. Some marketing managers have been criticized for promoting environmentally packaging on some products, while simultaneously increasing the use of problematic packages on others. Empty packages now litter our streets and some plastic package will lie in a city dump for decades. Empty aerosol cans may explode and empty bottles often become broken glass.

**3. Shortage of packaging materials:** At times it becomes very difficult in getting materials used for packaging and this is as a result of the inability of some companies recycle and reuse containers. Typical examples of companies that practice the “reuse” concept are the Coca Cola Company Limited and Ghana Brewery Limited.

Marketers should therefore try as much as possible to overcome the above obstacle in order to implement effective packaging decision.

### **2.1.6. Consumer buying behavior**

Consumer is an individual or group of individuals who select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires (Solomon et al, 2008). In other words, Consumers are the eventual destination of any products or services. The study of these individuals, groups, or organizations is what we call Consumer behavior. The processes by which these organizations select, secure, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society. It blends elements from psychology, sociology, social anthropology and economics. It attempts to understand the buyer decision making process, both individually and in groups. It studies characteristics of individual consumers such as demographics and behavioral variables in an attempt to understand people's wants. It also tries to assess influences on the consumer from groups such as family, friends, reference groups, and society in general (Solomon et al, 2008).

Consumer buying behavior is defined as the mental, emotional and physical activities that people engage when selecting, purchasing, using disposing of products and services in order to satisfy needs and desires (Schifinan & Kanuk, 2009). It depends on how people make their decisions over product on personal or household consumption, under the limitations of cost that a customer can pay Schiffman (2000).

Egan (2007) highlights the need to understand the behavior of consumers. According to him the awareness of the consumer behavior positively contributes to the economy, he further notes that goods and services in nations that the consumer buying behavior is known are of high quality. Consumer behavior is however not static, it is constantly changing as the purchasing attributes of the consumer change overtime because of the consumer's physical, psychological, geographical, or demographic needs. Kotler, Wong, Saunders and Armstrong (2005) state that it is important to note that although there have been great efforts used to understand consumers buying behavior; it is still hard to pinpoint the reasons why a consumer would prefer a product over another. The reason behind this is because there are times that consumers purchase a product based on emotional beliefs that they themselves might not be aware of.

Bearden, Ingram and Laforge (1995) classified factors that influence consumer behavior in to three groups that is social, individual and situational. While Jobber (1995), highlights that factors that influence consumer buying behavior can be categorized into economic, social, personal and technical. Where economic concerns cost, social refers to the effect the purchase has on the consumers perceived relationship with others and the influence social norms has on the individual. The personal category is concerned with how the service and product relates to the individual psychologically and the technical category relates product and service performance including the comfort, reliability, convenience and durability. Brassington Frances and Stephen Pettit (2007) group factors that influence consumer behavior in four groups that is individual, group influences and situational and marketing mix that includes, product, price, promotion and place. Adelina & Morgan (2007) emphasize on the influence of the marketing mix pointing out packaging as one of the most valuable tool in today's marketing communications; impact of packaging and its elements can impact the consumer's purchase decision.

Sinclair (2006) explained that the process of consumer buying is not rational. It also does not follow any statistical pre-determined economic patterns. Fitzsimons and Shiv (2001) suggest that consumer choice behavior is a mix of conscious and non-conscious influences, and the role of non-conscious influences may be quite significant. Baker, Levy and Grewal (1992) alleged that it is important for retailers to be in the know of the factors that trigger impulse buying in consumers. Retailers can assist buyers find the right products by using focused merchandising, store layout and design and other visual effects on merchandise such as the display of products, signage and packaging.

Kotler and Keller (2011) indicate that understanding the process of selection of services and products by the consumer will help manufactures gain competitive advantage over their rivals. Firms can use the information strategically to provide the needed products and services at the right time to the right consumers.

### **2.1.6. Elements of product packaging**

Different authors showed different views regarding the elements of packages. According to (Smith & Taylor 2004), there are six variables that must be taken into consideration by producer and designers when creating efficient package: form, size, color, graphics, material, and flavor. Similarly, (Kotler, 2003) distinguishes six different elements such as size, form, material, color, text, and brand those must be evaluated when employing packaging decisions.

(Vila & Ampuero, 2007) distinguished two blocks of package elements: graphic elements (color, typography, shapes used, and images) and structural elements (form, size of the containers, and materials). It should be noticed that these two blocks, do not include verbal elements of package.

(Rettie & Brewer, 2000) stressed out the importance of proper positioning of elements of package, dividing the elements into two groups: verbal (for example, brand slogans) and visual (visual appeal, picture, etc.) elements. In addition, (Silayoi & Speece, 2004; 2007) divide package into two categories of elements: visual elements (graphics, color, shape, and size) and informational elements (information provided and technology).

Relying on literature analyzed, this study supports the later argument. Accordingly, a research model (figure2.1) containing two main blocks of package elements: visual and informational elements has been developed to know the effect of product packaging on consumers buying behavior on soap and detergent products. Graphics, color, shape, and size are considered as visual elements, while information provided and technology are considered as informational elements.

#### **2.1.6.1. Visual elements**

##### **Color**

Packaging color is one of the visual elements that induce consumers to make buying decision (Vila & Ampuero, 2007; Underwood, 2003). Colors help the consumer to treat, retain and memorize the information more effectively than black and white. Color is often used as an indicator of a product's

category and facilitates its identification by consumers. Color of packaging is important because it used by companies to differentiate its product from other competitors.

According to Cavassilas (2007) the use of a color background rather than a figurative background, presents interests of visual and cognitive ergonomics, in addition of being spotted more easily from afar, a background of color causes a greater emotional impact since color is reputed to be a signifier that provokes an emotional reaction.

The right choice of colors is an important factor in creating the impression needed to influence brand and product selection (Gofman et al., 2010). Packaging can be made memorable if marketers could create a striking impact by playing wisely with colors; as human brains quickly respond to signal of eyes than ears. (Cheskin, 1957) says that the selection of the colors and color combinations is a necessary process for creating a good design package.

The ability of colors to attract attention is important in marketing, especially for advertising communication (Divard, 2001). Colors can also distract attention, that is, draw attention to non-central elements of commercial communication. The eye perceives red more quickly than blue (Deriner, 2000), this aspect explains why red is frequently used in signage, but also in advertising, for media that need to be recognized from a distance or in promotions (Sohier, 2004).

The effects of color on the formation of attitude towards the product strongly mobilized the interest of the researchers (Pantin, 2004; Pantin, 2009). Companies use different colors for emphasizing a different mood, like, black is used for power, blue for trust, red for energy, green for balance or organic and fresh. Color is an essential component of packaging because consumers expect certain type of colors for particular products (Keller, 2009). Different colors symbolize different meanings to consumers. For example, as red for a strong taste, green for bitter taste, this underlines the immense potential of colors to infer sensory perceptions. Thus, the study by Ezan and Piris (2009) points out that the diversity of colors creates a perception of variety in the assortment of supermarkets. In general, this research emphasizes that color is a very important dimension of product packaging on consumers buying behavior.

## **Graphics**

An important role of packaging graphics is that they gain attention of consumer (Pinya 2004). In view of Silayoi and Speece (2004) graphics includes layout, color combinations, typography and product

photography all of which form the packaging designs. (Smith and Taylor 2004) Use of graphics is helpful in value addition in the physical appearance of the brand and also improves the exterior by enhancing the quality of aesthetics. Moreover, in many situations' graphics could create a positive mood and could match with or satisfy the lifetime hidden aspirations of a consumer (Smith 2004). It is an important indication for marketers that graphics can be made more attractive through the proper placement of elements which are associated with graphics. Graphics are considered important whether consumer have the brand loyalty or not. When consumer is preferring any brand then graphics helps them in eliminating the confusion and when they are not loyal to any of the brand then graphics act as an important tool which can at least grasp their attention. Consumers can also be persuaded to try the actual product through the usage of graphics on packaging when the combinations of different materials used in graphics and holograms such as lamination with aluminum foil or some different kind of printing can inspire a consumer to touch the product packaging and hence making the consumer to try the actual product (Rundh 2009). (Pinya, 2004) as pictorials on packaging can increases the level of interest and level of curiosity of customers.

## **Size**

Packaging size is important for new product as well as for the most familiar products. The core nature of consumer is to get attracted by the size, because the general psychology relates the size with the quantity. Research conducted in the year 2008 proves that redesigning of packaging increases the rate of consumption, especially when the product is available in larger size (Kotler, 2008) furthermore increase in size of packaging also indicates better quality (Smith, 2004) and influence the desire to consumer (Keller, 2009). Packaging size depends on products features and the target market Smith 2004. Larger pack sizes convey better quality (Smith 2004) and increases impulse consumption (Keller 2009).

According to (Rundh 2013) customer requirement of packaging shows that change in the size of household in effect changes the product size. An investigation done on the size attribute of packaging by (Kumar, 2012) shows that different packaging size is way to extend a product into new markets. Larger package size can fulfil the customer needs of mass utilization. Another study on packaging size shows that smaller packaging size are considered by consumer of smaller family and that the large size of packaging communicated the waste of product for them (Silayoi 2004). This was also found true in another study that consumer's willingness to buy a product increases if products are presented in smaller packages and if products have shorter expiry date then consumers do not prefer large package sizes

(Ahmadi 2013). Market demand also suggests that due to smaller household's products are to be bought in smaller packages (Rundh 2005).

## **Shape**

The packaging shape can be an important factor in the differentiation of products among the competition. Influence of the packaging shape on the consumer's perception is the least examined of factors mentioned, although it is considered as an important tool for product differentiation and promotion.

According to Schoormans and Robben (1997), the more the shape gets complex and different than standard, the stronger attention is evoked. Raghurir (2006) found some rectangular shaped packages with slightest changes in dimensions. He derived the results that dimensions can create a drastic effect on the consumer's purchasing intentions. Geometrically more complex shapes appear larger than geometrically simpler ones of equal height and size, which can be used for obtaining advantage (Garbe et al, 2009). Also, rectangular shapes are perceived as bigger than round shapes (Kridler et al, 2001).

### **2.1.6.2. Informational elements**

#### **Information provided**

Printed information contains all the information related to the product quality, price, description which help to identify the brand. This helps customers to make the right decisions on the basis of information printed on the packaging and to purchase the product. Printed information can be easily handed out and accepted away. It is one of the most visible parts of product and important element of marketing mix (Shah et al., 2013).

Accordingly, Silayoi and Speece (2004) state that information written on the package helps consumers in planning which product to consider for their purchasing. Hausman (2000) also states that consumers who regularly search for product information develop a bank of information for each product and this makes them to be well informed and restrict further search in their next purchase. It is significant at all levels of participation.

## **Package technology**

Deliya and Parmar (2012) view that innovative packaging increases the value of the goods if it meets a consumer needs. In most cases customers accept a product if its package is well innovated, thus product innovation plays a crucial role in consumer decision making of FMCG products. Packaging innovation in this dynamic environment must be consumer oriented, meet the green marketing agenda, meet the nutritional requirements of the society, must be efficiently manufactured, and should have a long shelf life and meet food safety requirements of the people. Bringing innovation in the packaging design also increase the value of the product like easy open, recyclable, easy store, breakability, child proof, eco-friendly, etc. in the consumer mind (Shah et al., 2013).

## **2.2. Empirical review**

### **2.2.1. Product packaging elements and consumer buying behavior**

A qualitative study by Alervall and Saied (2013) that was conducted in Sweden to investigate the communication of packaging elements stated that majority of the participants argued that every visual element is important depending on the situations. However, the participants prioritized color in their selection of alternatives, followed by graphics whilst size and shape were chosen by the least number of participants. This study however did not focus on specific product hence the conclusion was generalized across different product categories.

Deliya and Parmar (2012) carried out a descriptive study in Patan District of Gujarat (India) about the roles of packaging in stimulating the behavior of the consumers, their aim was to discover the relationship between independent variable and dependent variables. Samples of 150 were chosen to represent respondents. The research revealed that packaging is the greatest factor and that consumer decision making is dependent on it. Furthermore, it was discovered that packaging, the color, background image, and packaging material, innovation, design of wrapper, printed information and font style were taken as predictors in consumer behavior. The study concluded that package could be treated as one of most valuable tool in today's marketing communications.

Oladele, P.O., Olowookere, B. Okolugbo, C.N., Adegbola, A.A, (2015) in their study examined the effect of packaging on the patronage of toothpaste among consumers in Ado-Ekiti metropolis, Nigeria. A total of 320 questionnaires were administered to respondents who were customers to eight most popular supermarkets through purposive sampling technique. The result revealed that among packaging

information available on toothpaste products, expiry date, NAFDAC number and nutritional composition had the strongest relationship with patronage. The packaging attributes with highest influence were quantity, quality, and color. The study recommended that manufacturers should place on their products only relevant information that will influence purchase decision.

Ashaduzzaman and Mahbub (2016) in their paper aims to know the role of packaging on buying detergent powder in Bangladesh. Considering the impact of various elements of packaging on purchasing detergent powder, a conceptual framework was developed by extensive literature review and tested by using structural equation modeling taking 200 usable questionnaires. The result shows six components of packaging: Packing Color, Background Image, Font Style, Wrapper Design, Printed Information, and Packing Innovation that have impacts on purchase decision of detergent powder in Dhaka City.

Lifu (2012) in his research on the effects of packaging on buying choice, showed that majority of respondents used in the study believed that the choice of buying a product is determined by the product packaging. He argued that the perceptions of respondents towards the value added to packaging vary as majority of the consumers believe that good and attractive packaging adds values and quality to the product. Lifu (2012) also found that consumers who are illiterates buy products by their packages, which perhaps they are used to and are easily identified when sighted from distance.

In a survey by Silayoi & Speece (2004) the impact of packaging on consumers buying decisions was studied based on two variables, including: complexity level of purchase and the time pressure when purchasing food products. In this study, the packaging factors were classified into two categories of visual factors (i.e. size, shape and the color of packaging), and informational factors of packaging (i.e. information on the packaging and type of packaging such as technologies used in the packaging). They introduced packaging as one of the most important factors in selling products with high involvement potential and admitted that the technologies used in packaging of skin care medications has been effective to the customers and has encouraged them to buy the product (Silayoi P.&Speece, M., 2004).

### **2.2.2. Product package color**

Alervall and Saied (2013) conducted a study in Nigeria on 450 participants to investigate Graphic design application to packaging technology. Majority of respondents, a total of seventy five percent confessed that the major visual factor that affected their purchase behavior was color. According to the results

color had an influence on human psychology and instincts. Ares, Deliza, Besio and Gimenez (2010) as well as Nawaz and Asad (2012) supported the importance of color from their studies that found that irrespective of consumers' involvement with the product package, color is the most important variable.

### **2.2.3. Product Package graphics**

Wells, Farley and Armstrong (2007), in their study 'Packaging Design for Own-Label food brands' explored the relationship between packaging and quality perception. The study was conducted in the United Kingdom. The study used observation as a research technique. The results showed that more than 43% of consumers use packet photography as proof of product quality. Thus, graphics that attract consumers at the point of sale help the consumers make the purchase decision quickly. This study demonstrated the importance that is placed on package graphics as a tool for differentiation from competitor products. The findings clearly indicated that there is a strong association regarding the influence of package graphics on the purchase decision. The impact of packaging graphics represents an important issue for food suppliers to consider. However, the limitation of this study is that the context used is the United Kingdom and while consumer buying behavior differs due to different factors, this study will be able to fill that gap.

In a study by Otterbing (2013), on pictorial and textual packaging elements, the results showed that if the textual images are placed on the left-hand side they are more likely to be noticed and pictorial images if placed on the right side are more, likely to be noticed. This study was carried out in Sweden using observation as the research methodology of the study. The findings showed that not only is attractiveness of graphics important, but the placement of textual and pictorial element is also important so that consumers can notice them. By using graphics manufacturers help consumers to find their choice products quickly by eliminating clutters and if they are not loyal to one brand the graphics attract the consumers and give them the opportunity to consider purchasing a given product (Silayoi, 2004).

### **2.2.4. Product Package Size**

Ahmadi (2013) investigated the effect visual components of packaging on consumer behavior in Iran. It showed that the willingness of the consumer to buy a product rises if the product is packaged in small containers or packages and if the product expiry date is short consumers prefers smaller packages compared to those products in large packages (Ahmadi, 2013). This study was conducted on 49 respondents through a quantitative survey. The findings also showed that market demand suggests that

small household purchase products are packaged in small packages (Rundh, 2005).

The size of the package is dependent on the target market and the features of the product (Smith, 2004). Frequency of use and consumption of a product rises is dependent on the packaging size (Kotler, 2008). According to Smith (2004) large pack sizes give the impression of better quality and influence consumers in engaging in impulse buying (as cited by Keller, 2009). Big and taller products attract more attention when placed with competing brands, when the consumer has a choice between different brands, they will probably choose to buy packages that are taller than the other (Hoyer & MacInnis, 2010). This finding is supported by an investigation conducted by Agatiya (2012) on the size attribute of packaging that showed that using different packaging size can extend a product into new markets.

#### **2.2.4. Product Package Shape**

In qualitative research conducted by Silayoi and Speece (2004) on food package preferences of consumer in Bangkok, Thailand, showed that products with a shape that was straight had a positive utility in comparison too curved shaped products and the same was observed for classic designed packages in contrast to colorful designs. The conclusion was that consumers were highly attracted to a package that is familiar and reliable rather than an exciting package. The study also illustrated that most of the consumers believe that the packaging shape was associated with the ease of carrying and using the product. However according to a study by Ares, Besio, Gimenez and Deliza (2010) that was conducted in Uruguay, the shape of a package, whether round or square had no influence on the buying behavior of the consumer.

#### **2.2.5. Product Package Information**

Spink, Singh and Singh (2011) investigated if consumers could assimilate and understand the information written on the container of the product. The study was conducted in the United States through a quantitative survey of 233 respondents. The finding was that packaging information did affect the consumer purchasing behavior and sometimes wrong interpretation of information on the package can affect the sales made. For instance, a warning sign according to the study could influence the buying behavior of the consumer leading to non-purchase of the product. The study however only focused on products with warning labels.

## 2.3 Conceptual framework and Hypothesis of the study

### 2.3.1 Conceptual Framework

#### Independent Variables

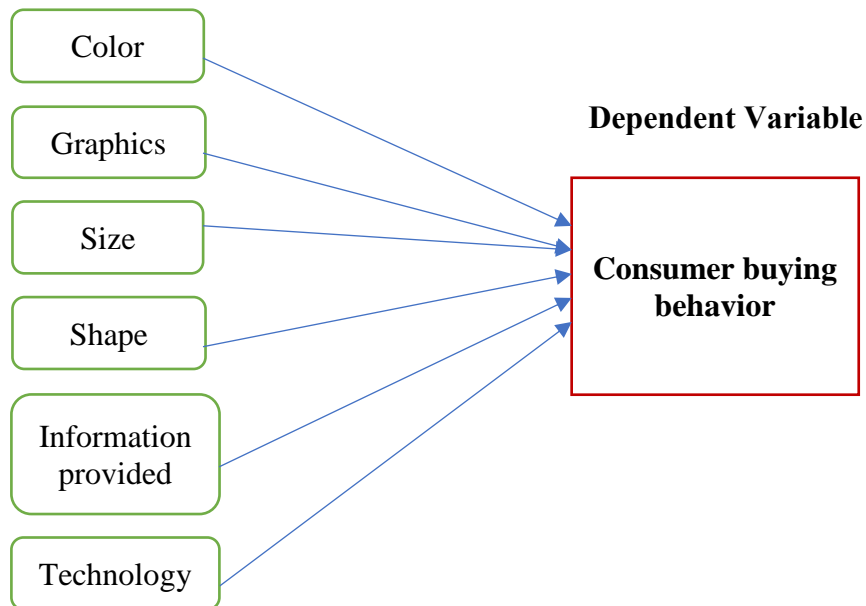


Figure 2.1- Adopted from Silayoi & Speece, 2004; 2007

### 2.3.2 Hypothesis of the study

The following hypotheses were formulated to be tested using appropriate statistical tools.

H1: The packaging color has a positive and significant effect on consumer buying behavior of Repi Wilmar soap and detergent products.

H2: The packaging graphics has a positive and significant influence on consumer buying behavior of Repi Wilmar soap and detergent products.

H3: The packaging size has a positive and significant effect on consumer buying behavior of Repi Wilmar soap and detergent products.

H4: The packaging shape has a positive and significant effect on consumer buying behavior of Repi Wilmar soap and detergent products.

H5: The packaging information has a positive and significant influence on consumer buying behavior of Repi Wilmar soap and detergent products.

H6: The packaging technology has a positive and significant influence on consumer buying behavior of Repi Wilmar soap and detergent products.

# **Chapter 3**

## **Research methodology**

### **Introduction**

This chapter tries to address the topic under research; the effect of product packaging on consumers buying behavior: the case of Repli Wilmar Soap and detergent S/C. This chapter consists of the Research Design, Research approach, Data Types and Data Sources, Population of the Study, Sampling frame, Sample Size, Sampling Technique, Data Collection Instrument, Data Collection Procedure, Data Analysis, reliability and validity test and Ethical Considerations of the research.

### **3.1. Research Approach**

Research approach can be classified in to three approaches. These are qualitative research, quantitative research and mixed research approach. In this study, the researcher used quantitative approach in order to achieve the objectives of this study. This approach deals with the use of statistical tools and numbers to address the previously mentioned research questions. This approach was applied by collecting data using questionnaires from supermarket customers to identify the effect of product packaging on consumer buying behavior.

Since this research is based on the existing theory, this paper adopted deductive research approach. As (Saunders, et al., 2009), deductive research approach involving the testing of a theoretical proposition by the employment of a research strategy specifically designed for the purpose of its testing.

### **3.2. Research Design**

There are different scientific research designs namely exploratory, explanatory and descriptive research. In this study, the researcher used explanatory research since it tries to examine the relationship of independent variables color, graphics, size, shape, information and technology with the dependent variable consumer buying behavior.

Based on the number of contacts with the study population, designs can be classified into cross-sectional studies and longitudinal studies. But in this study the researcher used cross sectional in a sense that data was collected at one point in time.

### **3.3. Source of data collection**

The researcher used both primary and secondary data for the accomplishment of the study. Primary sources were from Repi-Wilmar Soap and Detergent product users whereas, secondary source was collected from various articles and journals in order to gain understanding of the factors that affect product packaging on consumers buying behavior.

### **3.4. Population of the study**

The population for the research consists of consumers who use the products of Repi soap and detergent in the selected supermarket in Addis Ababa. The consumers consisted individuals of all genders and across all age groups above eighteen years. This population consists of shoppers at Shoa supermarket. This retail holding is in Addis Ababa, Ethiopia and have 9 branches distributed in Addis Ababa located at Piassa, Bole Road around wello sefer, Megenagna Zefmesh Mall, Gurd Sholla, Sarbet opposite Canadian Embassy, San bldg, around Gabriel Church, Old Airport and Lebu.

### **3.5. Sampling Frame**

A sampling frame is defined as the list of elements from which the sample is drawn and is also referred to as the working population according to Collins and Onwuegbuzie and (2007). The sampling frame for this research includes 8 supermarkets. According to (Mohammed, 2016) eight major supermarket chains, with a total of 21 stores, are open across Addis Ababa. The major retail stores are Shoa, Fantu, Safeway, Friendship, Bambis, All-Mart, Novis, and Loyal supermarket which supply a wide array of products. The stated supermarkets are those that are leading retailers in Addis Ababa. (Look at appendix 2).

### **3.6. Sample size**

In this research, the target population of the study can be considered as infinite population since the customers coming to the supermarket cannot be determined. As result, the following sampling formula for infinite population was used to come up with the sample size using the formula of (Israel, 2012).

$$n_0 = \frac{Z^2 pq}{e^2}, \text{ where}$$

$n_0$ -Sample size

Z – z value at specified confidence interval

p - Estimated proportion of an attribute present in the population

e – Desired level of precision

Which is valid where  $n_0$  is the sample size,  $Z^2$  is the abscissa of the normal curve that cuts off an area  $\alpha$  at the tails ( $1 - \alpha$ ) equals the desired confidence level, e.g., 95%),  $e$  is the desired level of precision,  $p$  is the estimated proportion of an attribute that is present in the population, and  $q$  is  $1-p$ . The value for  $Z$  is found in statistical tables which contain the area under the normal curve (Israel, 2012).

To illustrate this, assume there is a large population but that we do not know the variability in the proportion that will adopt the practice; therefore, assume  $p=0.5$  (maximum variability). Furthermore, suppose we desire a 95% confidence level and  $\pm 5\%$  precision (Israel, 2012).

$$n_0 = \frac{Z^2 pq}{e^2} = \frac{(1.96)^2 (0.5) (0.5)}{(0.05)^2} = 384.16 \approx 384$$

### **3.7. Sampling techniques**

In choosing supermarkets, the researcher employed non-probability sampling and purposive sampling was chosen. In this case, the researcher used her discretion in selecting sample from the sampling frame and the researcher chose Shoa supermarket because the supermarket has 9 branches distributed in Addis Ababa and its believed to be representative.

In choosing consumers at the supermarket, the researcher employed non-probability sampling and convenience sampling was used.

### **3.8. Data collecting instrument**

The study depends on the primary data collected through self-administered structured questionnaires survey. Primary data is a data that have been observed, experienced or recorded close to the event are the nearest one can get to the truth (Nicholas, 2006). Self-administered structured items allowed the researcher to tabulate and analyze data with easiness and allow the respondents sufficient time on items that will require consultation before response (Kothari, 2004).

Questionnaire with the 5-point Likert's scale format and closed-ended items format were prepared to gather data from the respondents. The questionnaires prepared in line with the objectives of the study organized in three sections. The first section designed to obtain the demographic information of the respondents. The second section was structured to measure the dependent variables by questions that show respondent's degree of agreement or disagreement of independent variables such as color,

graphics, size, shape, information provide and technology. The third section was about respondent's level of agreement or disagreement on consumer buying behavior.

### **3.9. Data analysis**

The data gathered from the questionnaire was entered and all the analysis was performed with Statistical Package for the Social Sciences (SPSS version 20). Descriptive analysis was used to organize and summarize the demographic data of the respondent which include age, gender, educational level and marital status. On the other hand, correlation analysis was used to see if there is any relationship between the independent and the dependent variable. In addition, regression analysis was used to know by how much the independent variable i.e. product packaging influences the dependent variable which is consumer buying behavior.

### **3.10. Reliability and Validity**

#### **3.10.1. Validity**

Validity is the extent to which differences found with a measuring instrument reflect true differences among those being tested, (Kothari, 2004). In other words, Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure. In order to ensure the quality, the research design the researcher checked content and construct validity of the research.

#### **3.10.2. Reliability**

According to (Saunders, et al., 2009), reliability is the extent to which your data collection techniques or analysis procedures will yield consistent findings. In order to ensure the reliability of the study, 20 questionnaires were distributed randomly and Cronbach's alpha coefficient was computed. The Cronbach's alpha coefficient is a statistical tool that evaluates the confidence through the inner consistency of a questionnaire. According to Hair, et al., (2010), if  $\alpha$  is greater than 0.7, it means that it has high reliability and if  $\alpha$  is smaller than 0.3, then it implies that there is low reliability.

### **3.11. Ethical considerations**

In conducting this research, respondents were informed in advance that the data collection process was carried out whenever they were willing to cooperate. In addition to this, any information collected via the instruments would never be used for any other purpose other than its academic intent i.e. the data would be kept confidential.

# Chapter 4

## Data Presentation, Analysis, and Interpretation

### 4.1 Introduction

This chapter presents the data analysis and results of discussion. The data analysis was undertaken with the help of statistical package for social science (IBM SPSS version 20.0). To test the hypotheses and achieve objectives of the study, a multiple linear regression analysis was employed. Pearson's Correlation Coefficients were also calculated to observe the relationships between the various variables influencing buying behavior and to see the internal consistency of the measures.

### 4.2 Response rate

A total of 384 questionnaires were distributed and the response rate was indicated in the table below.

**Table 4.1 Response rate**

<b>Sample</b>	<b>Number</b>	<b>Percent</b>
<b>Sample size</b>	384	100%
<b>Collected questionnaire</b>	366	95%
<b>Incomplete questionnaire</b>	11	3%
<b>Remain uncollected</b>	18	5%
<b>Total usable questionnaire</b>	355	92%

From the above table, out of 384 distributed questionnaires 366 (95%) were collected while 11 (3%) of the questionnaire were incomplete questionnaire and 18 (5%) of the questionnaires remained uncollected. Therefore, analysis was made based on the responses obtained from 355 questionnaires i.e. (92 %).

### 4.2 Demographic Profile of Respondents

This subsection captures and summarizes demographic characteristics of respondents of this study. The

demographic factors used in this research were age, gender, educational level and marital status of respondents. This aspect of the analysis deals with the personal data of the respondents of the questionnaires given to them. The tables below show the details of general information of the respondents.

**Table 4.2 Summary of Demographics Characteristics**

<b>Number</b>	<b>Demographics Characteristics</b>	<b>Frequency</b>	<b>Percentage</b>
<b>1</b>	<b>Age of respondents</b>		
	18-25	137	38.6
	26-30	75	21.1
	31-35	49	13.8
	36-40	44	12.4
	>41	50	14.1
<b>2</b>	<b>Gender of respondents</b>		
	Male	140	39.4
	Female	215	60.6
<b>3</b>	<b>Educational level</b>		
	No education	4	1.1
	Primary education	10	2.8
	Secondary education	69	19.4
	College Diploma	50	14.1
	First degree	147	41.4
	Postgraduate degree	75	21.1
<b>4</b>	<b>Marital status</b>		
	Married	112	31.5
	Single	187	52.7
	Divorced	31	8.7
	Widowed	25	7

Source: Survey data (2019)

### **Age of respondents**

Table 4.2 shows that a large group of respondents were of the age 18-25 years which in percent were 38.6%. The second large group of respondents were within the age bracket 26-30 years which were 21.1%. The third large group which was above 41 years consists of 14.1% of the respondents. The fourth age group are 31-35 years which consist 13.8% of the respondents. And the last age group which age bracket 36-40 years represented only 12.4% of the total respondents of this research.

### **Gender of Respondents**

Table 4.2 shows gender profile of the respondents. Majority of the respondents are females which accounts 60.6 % of the sample whereas male respondents account for 39.4 % of the sample

### **Educational level of respondents**

Table 4.2 shows Educational level of respondents, out of which 41.4% or 147 of the respondents have First degree, 21.1% or 75 of the respondents have Postgraduate degree, 19.4 % or 69 of the respondents have Secondary education, 19.4% or 50 of the respondents have college diploma, 2.8% or 10 of them have primary education and the rest 1.1% or 4 of them have no education.

### **Marital status of respondents**

Table 4.2 shows the marital status of the respondents. Married accounted for 112 (31.5%), Single accounted for 187(52.7%), divorce accounted for 31 (8.7%) and respondents who are widowed accounted for 25 (7%) are stated in the table above.

## **4.3 Reliability Analysis of Variables**

In order to ensure the reliability of the study, 20 questionnaires were distributed randomly and Cronbach's alpha coefficient was computed. The Cronbach Alpha was used to test reliability of the scales used from the pre-test sample.

According to (Saunders, et al., 2009), reliability is the extent to which your data collection techniques or analysis procedures will yield consistent findings. The normal range of Cronbach's alpha coefficient value ranges between 0-1 and the higher values reflects a higher degree of internal consistency. Different authors accept different values of this test in order to achieve internal reliability, but the most commonly accepted value is 0.70 as it should be equal to or higher than to reach internal reliability (Hair *et al.*, 2003).

Table 4.3 and 4.4 shows the values of Cronbach's Alpha for both pilot test and actual data calculated for the overall variables and for the independent and dependent variables. For the independent and dependent variables, values of Cronbach's Alpha ranged from 0.711 and 0.863. This range is considered high as the result ensures the reliability of each field of the questionnaire. Overall Cronbach's Alpha equals 0.937 which indicates very good reliability. Therefore, based on the test, the results for the items are reliable and acceptable.

**Table 4.3 Reliability check of the overall variables**

Variables	Cronbach's Alpha		Number of items
	Pilot Data	Actual Data	
Overall variables	0.936	0.937	34

Source: Survey data (2019)

**Table 4.4 Reliability test of independent and dependent variables**

Variables	Cronbach's Alpha		Number of items
	Pilot Data	Actual Data	
<b>Color of packaging</b>	0.726	0.771	5
<b>Graphics of packaging</b>	0.812	0.773	5
<b>Size of packaging</b>	0.758	0.771	5
<b>Shape of packaging</b>	0.776	0.796	5
<b>Information provided on the package</b>	0.859	0.863	6
<b>Technology of packaging</b>	0.898	0.842	4
<b>Consumer Buying Behavior</b>	0.830	0.711	4

Source: Survey data (2019)

#### **4.4 Descriptive analysis**

In order to compare the respondents' overall consumer buying behavior, descriptive statistics of mean and standard deviation was used. The mean indicates to what extent the sample group averagely agrees or disagrees with the different statements. The higher the mean the more the respondents agree with the statement while the lower the mean the more the respondents disagree with the statement. In addition, standard deviation shows the variability of an observed response.

**Table 4.5 Descriptive statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Package Color	355	1	5	3.116	1.2068
Package Graphics	355	1	5	3.14	1.1598
Package Size	355	1	5	3.382	1.1852
Package Shape	355	1	5	3.086	1.1508
Package Information	355	1	5	3.596667	1.211833
Package technology	355	1	5	3.4175	1.17025
Consumer buying behavior	355	1	5	3.34	1.14675

Source: Survey data (2019)

As indicated on table 4.5, the maximum and minimum responses of respondents are 5 and 1 respectively. The mean value depicts the average number of responses of all customers on the given dimension. While, standard deviation describes how diverse the responses are for a given construct. For instance, high Standard Deviation is scored for packaging information among all the dimensions implying, the data is wide spread, respondents have relatively diverse opinion on the other hand, the low standard deviation scored by consumer buying behavior meaning, respondents have relatively matching responses. On the other hand, the entire mean score for the constructs are above 3 which communicate respondents show somehow an agreement to the questions raised during the survey.

#### **4.5 Correlation Analysis**

To determine the relationship between product packaging dimensions (color, graphics, size, shape, product information and technology) and consumer buying behavior, Pearson correlation was computed. The table below represent the results of Pearson correlation on the relationship between product packaging and consumer buying behavior. Pearson correlation coefficients reveal magnitude and direction of relationships (either positive or negative) and the intensity of the relationship (-1.0 to +1.0). Correlations are perhaps the most basic and most useful measure of association between two or more variables (Marczyk, et al., 2005). As per Marczyk, et al., (2005) general guidelines correlations of .01 to .30 are considered small, correlations of .30 to .70 are considered moderate, correlations of .70 to .90 are considered large, and correlations of .90 to 1.00 are considered very large. Based on this the following correlations were analyzed.

**Table 4.6 Correlation between product packaging elements and consumer buying behavior**

Product packaging dimensions	Correlations	Consumer buying behavior
Color of packaging	Pearson Correlation	.472**
	Sig. (2-tailed)	.000
	N	355
Graphics of packaging	Pearson Correlation	.455**
	Sig. (2-tailed)	.000
	N	355
Size of packaging	Pearson Correlation	.569**
	Sig. (2-tailed)	.000
	N	355
Shape of packaging	Pearson Correlation	.481**
	Sig. (2-tailed)	.000
	N	355
Product Information	Pearson Correlation	.623**
	Sig. (2-tailed)	.000
	N	355
Technology	Pearson Correlation	.584**
	Sig. (2-tailed)	.000
	N	355

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

Source: Survey data (2019)

The results in table 4.6 indicate that, there is positive, significant and moderate relationship between all packaging elements and consumer buying behavior. All the six packaging elements (packaging color, graphics, size, shape, products information and technology) have strong positive correlation with the dependent variable consumer buying behavior and highly significant with  $p < 0.01$  and Pearson Correlation value of  $r = 0.472$ ,  $r = 0.455$ ,  $r = 0.569$ ,  $r = 0.481$ ,  $r = 0.623$  and  $r = 0.584$  for packaging color, graphics, size, shape, products information and technology.

#### 4.6 Normality test

Normality test is used to determine whether sample data has been drawn from a normally distributed population or the population from which the data came is normally distributed. To check the normality

of variable which are incorporated in the multiple linear regression model, the researcher used the histogram with a normal curve imposed and as it is shown in (appendix 4) the variables in the multiple linear regression model followed normal distribution.

A check for normality of the error term is also conducted by a visual examination of the normal probability plots of the residuals. The plots are different from residuals plots in that the standardized residuals are compared with the normal distribution. In general, the normal distribution makes a straight diagonal line, and the plotted residuals are compared with the diagonal. If a distribution is normal, the residual line will closely follow the diagonal (Ghozali, 2001). The normality plot of this study fit with the assumption. See (appendix 5).

As show on table 4.7 normality was also checked by two terms i.e. kurtosis and skewness using SPSS so there exist normal values for kurtosis as well as skewness. As George and Mallery (2010) put a generally acceptable range for skewness and kurtosis for further analyses is between the ranges of  $\pm 2.0$ . Others extend the range of kurtosis up to  $\pm 3.0$ . Kurtosis statistics is used to measure the peakedness of the distribution. The reference standard is a normal distribution, which has a kurtosis of 3 and the lower bound is -3 (Brown, 2011). The table below indicates that all variables are under the acceptable range of skewness and kurtosis which is between the ranges of  $\pm 2$  and  $\pm 3$  respectively. So, the overall distribution is reflected as normal.

**Table 4.7 Skewness and Kurtosis checking for normality of the data**

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Color of packaging	355	-.063	.129	-.717	.258
Graphics of packaging	355	-.015	.129	-.552	.258
Size of packaging	355	-.243	.129	-.511	.258
Shape of packaging	355	.039	.129	-.749	.258
Information provided on the package	355	-.462	.129	-.769	.258
Technology used on the package	354	-.369	.130	-.617	.259
Consumer buying behavior	355	-.299	.129	-.433	.258
Valid N (listwise)	354				

Source: Survey data (2019)

## 4.7 Homoscedasticity

Homoscedasticity describes a situation in which the error term (that is, the “noise” or random disturbance in the relationship between the independent variables and the dependent variable) is the same across all values of the independent variables. The variability in scores for independent variables should be similar at all values of the dependent variable. The scatter plot should show a fairly even rectangular shape along its length. There should be homoscedasticity before running multiple regression analysis, this means that the residuals (the differences between the values of the observed and predicted dependent variable) are normally distributed, and that the residuals have constant variance (Burns & Burns, 2008). If the assumption of homoscedasticity is violated (i.e. there is heteroscedasticity). The graph has demonstrated homoscedasticity of the study. See (appendix 6)

## 4.8 Multicollinearity

In regression, multicollinearity occurs when independent variables in the regression model are more highly correlated with each other than with the dependent variable. Multicollinearity can be detected using tolerance value and variance inflator factor (VIF) value. As it can be seen from table 4.8 below multicollinearity does not exist among all the independent variables provided that the tolerance value of all the independent variables are greater than 0.1 and the VIF values of all the independent variables are less than 10. Therefore, regression analysis was done.

**Table 4.8 Multicollinearity**

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Color of packaging	.500	2.001
Graphics of packaging	.521	1.919
1 Size of packaging	.503	1.987
Shape of packaging	.477	2.098
Information provided	.494	2.024
Technology	.513	1.950

a. Dependent Variable: Consumer Buying Behavior  
Source: Survey data (2019)

## 4.9 Regression analysis

Multiple regression is a flexible method of data analysis that may be appropriate whenever a quantitative variable (the dependent) is to be examined in relationship to any other factors (expressed as independent). Regression analysis was conducted to know by how much the independent variable explains the dependent variable. It is also used to understand by how much each independent variable (color, graphics, size, shape, product information and technology used) explains the dependent variable that is consumer buying behavior.

**Table 4.9 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.724 <sup>a</sup>	.524	.516	2.01720	1.824

a. Predictors: (Constant), Technology, Color, Size, Graphics, Information provided, Shape

b. Dependent Variable: Consumer buying behavior

Source: Survey data (2019)

Table 4.9 gives summary of the model. This summary gives the R and  $R^2$  of the model that has been derived. R has the value of 72.4% which represents the overall correlation between consumer buying behavior and the independent variables. The  $R^2$ , which is the coefficient of determination, was found to be 52.4% which means that (packaging color, graphics, size, shape, product information and technology) can account for 52.4% of the variation in consumer buying behavior. It indicates the contribution of packaging color, graphics, size, shape, product information and technology in explaining variance of consumer buying behavior of Repi Wilmar soap and detergent is 52.4%. In other words, 47.6% of the variation in consumer buying behavior of Repi wilmar soap and detergent cannot be explained by these six factors and that there are other variables that have an influence on the outcome. Another measurement found in the table above is Durbin Watson value (auto correlation test). It measures the underlying relationship between independent variables. Its value falls under 0 to 4. If its result is 1.5 to 2.5, it means there is no disturbing relationship between independent variables and based on the above table, the independent variables of this research didn't correlate.

**Table 4.10 ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1556.212	6	259.369	63.924	.000 <sup>b</sup>
	Residual	1411.986	348	4.057		
	Total	2968.198	354			

a. Dependent Variable: CBB

b. Predictors: (Constant), technology, Color, Size, Graphics, Information, Shape

Source: Survey data (2019)

As indicated in table 4.10 there is statistically significant effect between independent variable (product packaging elements) and dependent variable (consumer buying behavior) where, (F) value was (63.924) at 0.000, since the significant is less than 0.05, it states that there is significant effect of product packaging elements on consumer buying behavior.

**Table 4.11 Regression analysis of packaging element**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.022	.522		1.957	.051
Color of packaging	.108	.040	.141	2.701	.007
Graphics of packaging	.042	.041	.053	1.038	.300
Size of packaging	.115	.041	.145	2.783	.006
Shape of packaging	.070	.042	.090	1.684	.093
Information provided	.179	.031	.308	5.853	.000
Technology	.180	.047	.198	3.830	.000

a. Dependent Variable: Consumer Buying Behavior

Source: Survey data (2019)

The table 4.11 below shows the regression standardized coefficients beta for the six independent variables i.e. packaging color, graphics, size, shape, product information and technology are 0.141, 0.053, 0.145, 0.090, 0.308, 0.198 respectively. It can be inferred from the table that color, size, information provided and technology are significant which are less than 0.05, however graphics and shape of package have no significance relationship with consumer buying behavior of Repi soap and detergent products.

The beta value on the coefficient table indicates level of effect each variable has on the dependent variable. The highest beta level is for information provided having B= 0.308. This indicates that this variable has relatively a strong degree of importance for consumer buying behavior than others.

The specified regression equation takes the following form

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6$$

$$CBB= \alpha+ \beta_1(CP) + \beta_2(GP) + \beta_3(SzP) + \beta_4(ShP) + \beta_5(IP) + \beta_6(TP)$$

Where:

Y= Consumer buying behavior (CBB)

CP= Color of packaging

GP= graphics of packaging

SzP= size of packaging

ShP= Shape of packaging

IP= Information provided on packaging

TP= Technology used on packaging

$\alpha$ = Constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5,$  and  $\beta_6$  = The Regression standardized coefficient of each variable

Therefore, the equation derives as

$$CBB= 1.022+ 0.108 (CP) + 0.042 (GP) + 0.115 (SzP) + 0.070 (ShP) + 0.179 (IP) + 0.180 (TP)$$

Constant 1.022 shows the effect of Color (CP), Graphics (GP), Size (SzP), Shape (ShP), Information provided on package (IP) and Technology used on package. It means that, in a condition where all independent variables are constant (Zero), Consumer Buying behavior (CBB) as dependent variable is expected to be 1.022. 0.108 increase in Package color will bring a 0.108 unit increase in consumer buying behavior of Repi Wilmar soap and detergent products. Also 0.042 unit increase of packaging graphics will have a 0.042 unit increase consumer buying behavior of Repi Wilmar soap and detergent products. 0.115 unit increase of package size will have a 0.115 unit increase in consumer buying behavior of Repi Wilmar soap and detergent products. 0.070 unit increase in Package shape will bring a 0.070 unit increase in consumer buying behavior of Repi Wilmar soap and detergent products. 0.179 unit increase in product information will bring a 0.179 unit increase in consumer buying behavior of

Repi Wilmar soap and detergent products. 0.180 unit increase in technology of the package will bring a 0.180 unit increase in consumer buying behavior of Repi Wilmar soap and detergent products.

#### **4.10 Hypothesis Testing**

**Hypothesis 1: Packaging color has a positive and significant effect on consumer buying behavior of Repi Wilmar soap and detergent products.**

With respect to the first hypothesis, the result on table 4.14 shows that standardized coefficient beta and p value of color was positive and significant. Therefore, H1 is supported, which indicate color has a positive and significant influence on consumer buying behavior of Repi Wilmar soap and detergent products. This study is supported by other researchers Alervall and Saied (2013) conducted a study in Nigeria on 450 participants to investigate Graphic design application to packaging technology. Majority of respondents, a total of seventy five percent confessed that the major visual factor that affected their purchase behavior was color. According to the results color had an influence on human psychology and instincts. Ares, Deliza, Besio and Gimenez (2010) as well as Nawaz and Asad (2012) supported the importance of color from their studies that found that irrespective of consumers' involvement with the product package, color is the most important variable.

**Hypothesis 2: The packaging graphics has a positive and significant influence on consumer buying behavior of Repi Wilmar soap and detergent products.**

Regarding, the second hypothesis the result on table 4.14 shows that standardized coefficient beta and p value of graphics was positive but insignificant. Therefore, H2 is not supported, which indicate graphics of packaging has a positive relationship but not statistically significant with consumer buying behavior of Repi Wilmar soap and detergent products. This is surprising, according to previous researchers' graphics of packaging has sought to bring a positive effect on consumer buying behavior. According to Tobias Otterbing (2013), a study was carried out in Sweden on pictorial and textual packaging elements, the results showed that if the textual images are placed on the left-hand side they are more likely to be noticed and pictorial images if placed on the right side are more, likely to be noticed. The findings showed that not only is attractiveness of graphics important but the placement of textual and pictorial element is also important so that consumers can notice them. By using graphics manufacturers help consumers to find their choice products quickly by eliminating clutters and if they are not loyal to one brand the graphics attract the consumers and give them the opportunity to consider

purchasing a given product (Silayoi, 2004).

**Hypothesis 3: The packaging size has a positive and significant effect on consumer buying behavior of Repi Wilmar soap and detergent products.**

With respect to the third hypothesis, the result on table 4.14 shows that standardized coefficient beta and p value of size was positive and significant. Therefore, H3 is supported, which indicate that size of packaging has a significant positive influence on consumer buying behavior of Repi Wilmar soap and detergent products. This study is also supported by Ahmadi (2013) who investigated the effect visual components of packaging on consumer behavior in Iran. It showed that the willingness of the consumer to buy a product rises if the product is packaged in small containers or packages and if the product expiry date is short consumers prefers smaller packages compared to those products in large packages (Ahmadi, 2013). The findings also showed that market demand suggests that small household purchase products are packaged in small packages (Rundh, 2005).

**Hypothesis 4: The packaging shape has a positive and significant effect on consumer buying behavior of Repi Wilmar soap and detergent products.**

Regarding the fourth hypothesis, the result of table 4.14 shows that standardized coefficient beta and p value of shape was positive but insignificant. Therefore, H4 is not supported, which indicate shape of packaging has a positive relationship but not statistically significant with consumer buying behavior of Repi Wilmar soap and detergent products. A research conducted by Silayoi and Speece (2004) on food package preferences of consumer in Bangkok, Thailand, showed that products with a shape that was straight had a positive utility in comparison too curved shaped products and the same was observed for classic designed packages in contrast to colorful designs. The conclusion was that consumers were highly attracted to a package that is familiar and reliable rather than an exciting package. The study also illustrated that most of the consumers believe that the packaging shape was associated with the ease of carrying and using the product. In this case, the result of the present study does not the support the argument of Silayoi and Speece (2004). However, this finding is consistent with the study by Ares, Besio, Gimenez and Deliza (2010) that was conducted in Uruguay, the shape of a package, whether round or square had no influence on the buying behavior of the consumer.

**Hypothesis 5: The packaging information has a positive and significant influence on consumer buying behavior of Repi Wilmar soap and detergent products.**

Regarding the fifth hypothesis, the result of table 4.14 shows that standardized coefficient beta and p value of information provided was positive and significant. Therefore, H5 is supported, which indicate packaging information has a significant positive influence on consumer buying behavior of Repi Wilmar soap and detergent products. This study is supported by Spink and Singh (2011) who investigated if consumers could assimilate and understand the information written on the container of the product. The finding was that packaging information did affect the consumer purchasing behavior and sometimes wrong interpretation of information on the package can affect the sales made. For instance, a warning sign according to the study could influence the buying behavior of the consumer leading to non-purchase of the product. The study however only focused on products with warning labels.

**Hypothesis 6: The packaging technology has a positive and significant influence on consumer buying behavior of Repi Wilmar soap and detergent products.**

With respect to the sixth hypothesis, the result on table 4.14 shows that standardized coefficient beta and p value of technology was positive and significant. Therefore, H6 is supported, which indicate technology used on packaging has a significant positive influence on wards purchase intention. In a study by Silayoi & Speece (2004) the packaging factors were classified into two categories of visual factors (i.e. size, shape and the color of packaging), and informational factors of packaging (i.e. information on the packaging and type of packaging such as technologies used in the packaging). They introduced packaging as one of the most important factors in selling products with high involvement potential and admitted that the technologies used in packaging of skin care medications has been effective to the customers and has encouraged them to buy the product (Silayoi P.&Speece, M., 2004).

# Chapter 5

## Summary, Conclusion and Recommendation

This chapter presents summary of major findings, conclusions and recommendation obtained from the analysis and interpretations made at the previous chapter are forwarded.

### 5.1 Summary of major finding

The main objective of the study was to assess the effect of product packaging on consumers buying behavior in the case of Repi Wilmar soap and detergent products. The study divided packaging into two categories of elements: visual elements (graphics, color, shape, and size) and informational elements (information provided and technology. Accordingly, the following are major findings of the study.

- Demographics characteristics of respondents shows that 38.6% of the respondents were of the age 18-25 years. Followed by 26-30 years which accounts for 21.1%. Respondents who were above 41 years consists of 14.1% and 31-35 years which consist 13.8% of the respondents. 36-40 years represented only 12.4% of the total respondents of this research.
- Gender of respondents show that 60.6 % of the sample were female, the rest 39.4 of the sample were males.
- Regarding, educational level of the respondents 41.4% of the respondents had First degree, 21.1% of the respondents had Postgraduate degree, 19.4% had college diploma, 2.8% had primary education and 1.1% them have no education.
- Concerning marital status, married accounted for 31.5%, Single accounted for 52.7%, divorce accounted for 8.7% and respondents who are widowed accounted for 7% of the sample.
- The results of the correlation analysis show that, all the six packaging elements packaging color, graphics, size, shape, products information and technology have positive, significant and moderate relationship with consumer buying behavior with  $p < 0.01$  and Pearson Correlation value of  $r = 0.472$ ,  $r = 0.455$ ,  $r = 0.569$ ,  $r = 0.481$ ,  $r = 0.623$  and  $r = 0.584$  respectively.
- The regression results indicate that package color, size, product information and technology had a positive and significant effect on consumer buying behavior of Repi wilamar soap and detergent products, but packaging graphics and shape had a positive but insignificant effect on consumer buying behavior. Therefore, the first, third, fifth and sixth hypothesis were accepted, whereas, the second and fourth hypothesis were rejected.

## 5.2 Conclusion

Packaging is the essential and significant factor which largely persuades the consumer buying behavior. Package performs a critical function, mainly during the moment of sale and it can be considered as one of most valued tools in today's marketing communications. The influence of package and its elements on consumer's buying behavior can be showed by assessing the importance of each elements independently for consumer buying behavior. The main packaging elements for this study are color, graphics, size, shape, product information and technology.

Data collection instrument were distributed to 384 customers of Shoa Supermarket, but only 355 questionnaires were complete and usable for the data analysis. Since, all the respondents were users of Repi Wilmar soap and detergent products it makes the researchers data representative.

To check the reliability of the variables, Cronbach's alpha was computed. For the independent and dependent variables, values of Cronbach's Alpha ranged from 0.711 and 0.863. This range is considered high as the result ensures the reliability of each field of the questionnaire. Overall Cronbach's Alpha equals 0.937 which indicates very good reliability.

The assessment of the results of regression analysis indicated that  $R^2$ , which is the coefficient of determination, was found to be 52.4%. The independent variable explains the dependent variable by 52.4% which means that the other 47.6% are explained by other variables which are not included in this study. The regression analysis also show that out of the six independent variables, four of the variables color, size, information provided and technology used on package were positive and significant, the other two variable graphics and shape of packaging were positive but statistically insignificant. Therefore, the researcher accepted hypothesis 1,3,5&6 and rejects hypothesis 2&4.

From these results, it can be concluded that, companies should give much emphasis on packaging elements which have high impact on consumer buying behavior. In this study, the four elements information provided on packaging, technology used, color and size have high effect on consumer buying behaviors o companies should give much attention to these elements.

### **5.3 Recommendation**

- The researcher highly recommends that marketing managers should highly focus on good packaging. If they fail to implement working on good packaging, then it could be one of the causes of product failure in the market.
- Organization should concentrate their efforts on making the package of product very attractive in order attract the interest of their customers.
- It must be noted that companies must prioritize between packaging elements as their effect on the consumer buying behavior is not the same. While some elements like printed information have higher effect, whereas elements like graphics and shape may not have as much as effect on consumer buying behavior as stipulated.
- Organizations should also pay attention to the information used. The information given on the label and its value should be highlighted. Where it was made, when it was made, what it contains or how to use the product should be written while promoting the product in the market.
- Finally, it is recommended to other researchers that when they are taking packaging as a research topic they should also focused on the other marketing factors and dimensions as well.

### **5.4 Limitations and Future area of study**

Methodologically this research used quantitative method of approach and used cross sectional survey design in a sense that data was collected at one point in time from consumers of Repi Wilmar soap and detergents product users. For future researchers, it's better to incorporate soap and detergent companies marketing manager opinion regarding packaging elements by using qualitative method of approach.

Conceptually this study did not cover all elements of packaging elements. It focused on relatively small part of the factors (color, graphics, size, shape, information provided and technology) proposed by (Silayoi & Speece, 2004; 2007). Additional research including other factors of packaging elements on a wider scale is required.

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# Appendices

## Appendix 1: Questionnaire in English

Addis Ababa University

School of commerce

Masters of Marketing Management Program



Dear respondents,

This study is to be conducted as part of a research project which shall be submitted in partial fulfillment of Masters of Art Degree in Marketing Management. This questionnaire is meant to collect information about the effect of product packaging on consumers buying behavior: In the case of Repi Wilmar soap and detergent S.C. The products of Repi Wilmar soap and detergent S.C include Largo liquid detergent, Ajax Dish wash, Ajax Window cleaner, Ajax Scouring powder, Diva multipurpose soap, ROL powder detergent, Essex auto wash and Tiffany beauty soap.

Your keen participation in supplying the required data is highly essential for successful completion of the study. The information you provide will be kept confidential and be used only for an academic purpose. I would like to thank you in advance for your participation and sharing your busy schedule.

**Note: kindly put a (√) mark with the option that reflects your level of agreement with the given statement.**

### Part I: Demographic questions

1. Age 18 - 25  2. 26 -30  3. 31-35  4. 36-40  5. >41
2. Sex: Male  Female
3. Educational level: No education  College Diploma   
Primary education  First Degree   
Secondary education  Postgraduate Degree
4. Marital status: Married  Single  Divorced  Widowed

**Part II: Packaging elements.**

**Direction:** Please indicate your degree of agreement/disagreement with the following statements by putting a (√) mark on the appropriate number. (1- Strongly disagree; 2-Disagree; 3- Neutral; 4- Agree; and 5-Strongly agree)

A	Packaging Color	1	2	3	4	5
1	I feel like it is important to look for packaging color when deciding to buy products of Repi Wilmar soap and detergents.					
2	I have a little experience with products of Repi Wilmar soap and detergents, so I search for the product using color to help me make more informed decision					
3	I look for product packaging color to choose the best products of Repi Wilmar soap and detergents available in a product class.					
4	I refuse to purchase a product of Repi Wilmar soap and detergents without knowing its packaging color.					
5	The color combination that makes the product stand out among other competitive products influences my purchase decision					
B	Packaging Graphics	1	2	3	4	5
1	I feel like it is important to look for graphics of the package when deciding to buy products of Repi Wilmar soap and detergents.					
2	I have a little experience with products of Repi Wilmar soap and detergents, soI search for the products using graphics of the package to help me make a more informed decision.					
3	I look for graphics of the package to choose the best products of Repi Wilmar soap and detergents available in a product class.					
4	I refuse to purchase a product of Repi Wilmar soap and detergents without knowing graphics of package.					
5	The picture quality of the product packaging influences my purchase decision.					
C	Packaging size	1	2	3	4	5
1	I feel like it is important to look for packaging size when deciding to buy products of Repi Wilmar soap and detergents.					
2	I have a little experience with products of Repi Wilmar soap and detergents, so I search for the products using packaging size to help me make a more informed decision.					
3	I look for product packaging size to choose the best products of Repi Wilmar soap and detergents available in a product class.					
4	I refuse to purchase a product of Repi Wilmar soap and detergents without knowing its packaging size.					
5	Packaging of various sizes of soap and detergent (i.e.single or multiple pack and different amount of liters and Kilograms) influences my purchase decision.					

D	Packaging Shape	1	2	3	4	5
1	I feel like it is important to look for product shape when deciding to buy of Repi Wilmar soap and detergents.					
2	I have a little experience with products of Repi Wilmar soap and detergents, so I search for products using packaging shape to help me make a more informed decision.					
3	I look for product packaging shapes to choose the best products of Repi Wilmar soap and detergents available in a product class.					
4	I refuse to purchase a product of Repi Wilmar soap and detergents without knowing its packaging shape.					
5	Shape of Repi Wilmar soap and detergents packaging influences my purchase decision.					
E	Packaging Information	1	2	3	4	5
1	I feel like it is important to look for product information when deciding to buy products of Repi Wilmar soap and detergents.					
2	I have a little experience with products of Repi Wilmar soap and detergents, so I search for products information about the product to help me make a more informed decision.					
3	I find out product information is important to determine the quality of Repi Wilmar soap and detergents.					
4	I look for product information to choose the best products of Repi Wilmar soap and detergents available in a product class.					
5	I refuse to purchase a product of Repi Wilmar soap and detergents without knowing its packaging information.					
6	The <b>language</b> used in writing composition of Repi Wilmar soap and detergents products is legible and could be easily interpreted by customers influences my purchase decision.					
F	Packaging Technology	1	2	3	4	5
1	The technology used to pack products of Repi Wilmar soap and detergents relates to ease in opening, use and closing.					
2	The technology used on the package of Repi Wilmar soap and detergents i.e. parts of package relate to conservation of the environment.					
3	The technology used to pack products of Repi Wilmar soap and detergents relates to protection from children.					
4	The package technology of Repi Wilmar soap and detergents enhances safe storage from contamination and damage e.g. water, dirt.					

### Part III: Buying behavior

G		1	2	3	4	5
1	Once I have selected products of Repiwilmar soap and detergent, I buy the product regularly.					
2	I consider products of Repiwilmar soap and detergent as my first choice when planning to buy soap and detergents.					
3	I would pay more than competitors' prices to buy the products of Repiwilmar soap and detergent.					
4	The packaging of Repi Wilmar soap and detergent products displayed influences my decision to purchase the product					

## Appendix 2: Questionnaire in Amharic

### የአዲስ አበባ ዩኒቨርሲቲ

### ንግድ ሥራ ትምህርት ቤት

#### ውድ መረጃ ሰጭዎቻችን

ይህ ጥናት የፕሮጀክቱ አንድ አካል ሆኖ እንዲገመገም የተዘጋጀ ሲሆን፣ ተዘጋጅቶም ለሁለተኛ ዲግሪ ማሟያ ሆኖ በገቢያ አመራር (Marketing Management) በከፊሉ ተሞልቶ የሚገባ ነው።

እነዚህ መጠይቆች የተዘጋጁት መረጃዎችን ለመሰብሰብ ሲሆን መረጃዎቹም የሚያተኩረው በ (እቃዎች ማሸጊያ የሚያመጡት ተፅእኖዎች በሽማግሌ ባህሪ ላይ) ነው።

ማሸጊያዎቹም የረጅም ሰውና እና ማፅጃ አ/ማ ምርቶች ላይ ነው። እነዚህም ምርቶች፣

- \* ላርጎ የፈሳሽ ሳሙና
- \* አጃክስ የሰህን ማጠቢያ
- \* አጃክስ የመስታወት ማፅጃዎች
- \* አጃክስ መፈገቢያ ፓውደሮች
- \* ዲቫ ሁለገብ ሳሙናዎች
- \* ROL ፓውደር ሳሙናዎች
- \* Essex አውቶ ዋሽ እና Tifaany የውበት ሳሙና።



ተሳትፎዎትን በተገቢው መረጃዎችን በመስጠት ለጥናታችን ስኬታማነት እና ውጤታማነት ትልቅ አስተዋጾ አለው። የሚሰጡት መረጃ በጥንቃቄ እና ሚስጥራዊ መሆኑን እና ለትምህርታዊ ጠቀሜታ ብቻ እንደሚውል ላረጋግጥሎ እወዳለሁ። በስትሙጫረሻም ለሚያደርጉት ተሳትፎ በቅድሚያ ለመሰግን እወዳለሁ።

#### ማሳሰቢያ

እባኩን ለሚመልሱት ሃሳብ(✓) በማለት እርሶን የሚገልፅ መረጃ ያስፍሩ።

#### ክፍል ፩ ሥነ ህዝባዊ ጥያቄዎች

1-እድሜ: 18-25  26-30  31-35  36-40  41 <

2 ያታ: ወንድ  ሴት

3-የትምህርት ደረጃ: ትምህርት ቤት ያልገባ  ኮሌጅ

የመጀመሪያ ደረጃ ትምህርት  የመጀመሪያ ዲግሪ

የሁለተኛ ደረጃ ትምህርት  ማስትርስ እና በላይ

4-የትዳር ሁኔታ: ባለ ትዳረ  ላጤ  የፈታ  የሞተበት/ባት

**ክፍል ፪ የማሽኒያዎቻቸው ማህደር (Packaging Element)**

እባኮትን ሀሳቦችን ሲገልፁ በቁጥሩ መሰረት እንዲ አድርገው መልሶትን አስፍሩ።

(1) በጣም እቃወማለው (2) እቃወማለው (3) በዚህ ዙሪያ ሀሳብ የለኝም (4) ተስማምቻለው እና (5) በጣም ተስማምቻለው

<b>ሀ</b>	<b>የማሽኒያ ቀለም</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	የ ረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች እንደምገዛ በምወስንበት ጊዜ የማሽኒያውን ቀለም ማየት አስፈላጊ ነው ብዬ አምናለሁ።					
2	ስለ ረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች ያለኝ እውቀት ጥቂት ከሆነ የበለጠ በመረጃ ላይ የተመሰረተ ውሳኔ ላይ ለመድረስ የማሽኒያውን ቀለም በመጠቀም ምርቱን አፈላልጋለሁ።					
3	ተመሳሳይ የ ረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች መካከል ጥሩ የሆነውን ለመለየት የማሽኒያ ቀለም እንደ አንድ መስፈርት አጠቃቀም ባለሁ።					
4	የረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች የማሽኒያ ቀለም ሳላይ የመግዛት ውሳኔ ላይ አልደርስም።					
5	የቀለሞች ውህደት ምርቱን ከሌሎች ተወዳዳሪ ምርቶች ጎልቶ መታየቱ በኔ ውሳኔ ተፅኖ ያሳድራል።					
<b>ለ</b>	<b>የማሽኒያ ስዕል አጣጣል</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	የ ረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች እንደምገዛ በምወስንበት ጊዜ የማሽኒያውን ስዕል አጣጣል ማየት አስፈላጊ ነው ብዬ አምናለሁ።					
2	ስለ ረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች ያለኝ እውቀት ጥቂት ከሆነ የበለጠ በመረጃ ላይ የተመሰረተ ውሳኔ ላይ ለመድረስ የማሽኒያውን ስዕል አጣጣል በመጠቀም ምርቱን አፈላልጋለሁ።					
3	ተመሳሳይ የ ረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች መካከል ጥሩ የሆነውን ለመለየት የማሽኒያ ስዕል አጣጣል እንደ አንድ መስፈርት አጠቃቀም ባለሁ።					
4	የ ረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች የማሽኒያ ስዕል አጣጣል ሳላይ የመግዛት ውሳኔ ላይ አልደርስም።					
5	ምርቱ ላይ የሚደረጉ ምስሎች በመገዛው እቃ ላይ ተፅኖ ያሳድርብኛል።					
<b>ሐ</b>	<b>የማሽኒያ መጠን</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	የረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች እንደምገዛ በምወስንበት ጊዜ የማሽኒያውን መጠን ማየት አስፈላጊ ነው ብዬ አምናለሁ።					
2	ስለ ረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች ያለኝ እውቀት ጥቂት ከሆነ የበለጠ በመረጃ ላይ የተመሰረተ ውሳኔ ላይ ለመድረስ የማሽኒያውን መጠን በመጠቀም ምርቱን አፈላልጋለሁ።					
3	ተመሳሳይ የ ረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች መካከል ጥሩ የሆነውን ለመለየት የማሽኒያ መጠን እንደ አንድ መስፈርት አጠቃቀም ባለሁ።					
4	የረፒ ዊልማር ሳሙና እና ማፅጃ ምርቶች የማሽኒያ መጠን ሳላይ የመግዛት ውሳኔ ላይ አልደርስም።					
5	አስተሳሰብ ላይ የሚጠቀሱ መረጃዎች እንደ(የሊትሩን መጠን እናም ኪሎውን መጠን ወ.ዘ.ተ) ግዢ ላይ ተፅኖ ያሳድራል።					

መ	የማሸጊያ ቅርፅ	1	2	3	4	5
1	የረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች እንደምገዛ በምወስንበት ጊዜ የማሸጊያውን ቅርፅ ማየት አስፈላጊ ነው ብዬ አምናለሁ።					
2	ስለ ረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች ያለኝ እውቀት ጥቂት ከሆነ የበለጠ በመረጃ ላይ የተመሰረተ ውሳኔ ላይ ለመድረስ የማሸጊያውን ቅርፅ በመጠቀም ምርቱን አፈላልጋለሁ።					
3	ተመሳሳይ የ ረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች መካከል ጥሩ የሆነውን ለመለየት የማሸጊያ ቅርፅ እንደ አንድ መስፈርት አጠቀምባለሁ።					
4	የረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች የማሸጊያ ቅርፅ ሳላይ የመግዛት ውሳኔ ላይ አልደርስም።					
5	የረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች የአስተሳሰብ ቅርፅ ግጥም ላይ ተፅዕኖ ያሳድራል።					
ሠ	የአስተሳሰብ መረጃዎች	1	2	3	4	5
1	የረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች ከመግዛቱ በፊት ስለምርቱ የሚነግሩን መረጃዎችን ማነብ ተገቢ ነው ብዬ አምናለሁ።					
2	ስለ ረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች ብዙም እውቀት ስለሌኝ ፣ ስለምገዛው ምርት በቂ መረጃዎችን ማሰባሰብ ለምገዛው እቃ ስለሚረዳኝ ነው።					
3	ስለ ረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች መረጃ ማግኘት ጥራቱን እንደላይ ዋነኛ ምክንያት ሁኖኛል።					
4	ስለ ረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች መረጃ ማግኘት ከምርቶቹ ውስጥ ለኔ ምርጥ የሆነውን እንድላይ ረድቶኛል።					
5	የረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶችን ላይ የሚገኙትን የማሸጊያ መረጃዎች ሳላረጋግጥ አልገዛም።					
6	የረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች ላይ የሚገኙት የፀ-ሁፍ ቻንቻ ለደንበኞች ግልፅ እና ቀላል የመሆን እና አለመሆን ግዢው ላይ አስተዋፅኦ ያሳድራል።					
ሸ	የአስተሳሰብ ቴክኖሎጂ	1	2	3	4	5
1	የ ረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች የተጠቀሙት የቴክኖሎጂ አይነት ለደንበኞች በቀላሉ እቃውን እንዲከፍቱት፣ በቀላሉ እንዲዘገጉት ብሎም በቀላሉ እንዲገለገሉበት ፣ ይረዳል።					
2	የረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች የተጠቀሙት የአስተሳሰብ ቴክኖሎጂ የአካባቢያዊ ጥበቃ ጋር ይዛመዳል።					
3	የረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች የተጠቀሙት የአስተሳሰብ ቴክኖሎጂ ከልጆች ደህንነት ጋር ይዛመዳል።					
4	የረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች የተጠቀሙት የአስተሳሰብ ቴክኖሎጂዎች ከጉዳት ፣ ከቆሻሻ ንክኪ የፀዳ ነው።					

**ክፍል ፫: የሽማግሌ ስህተት**

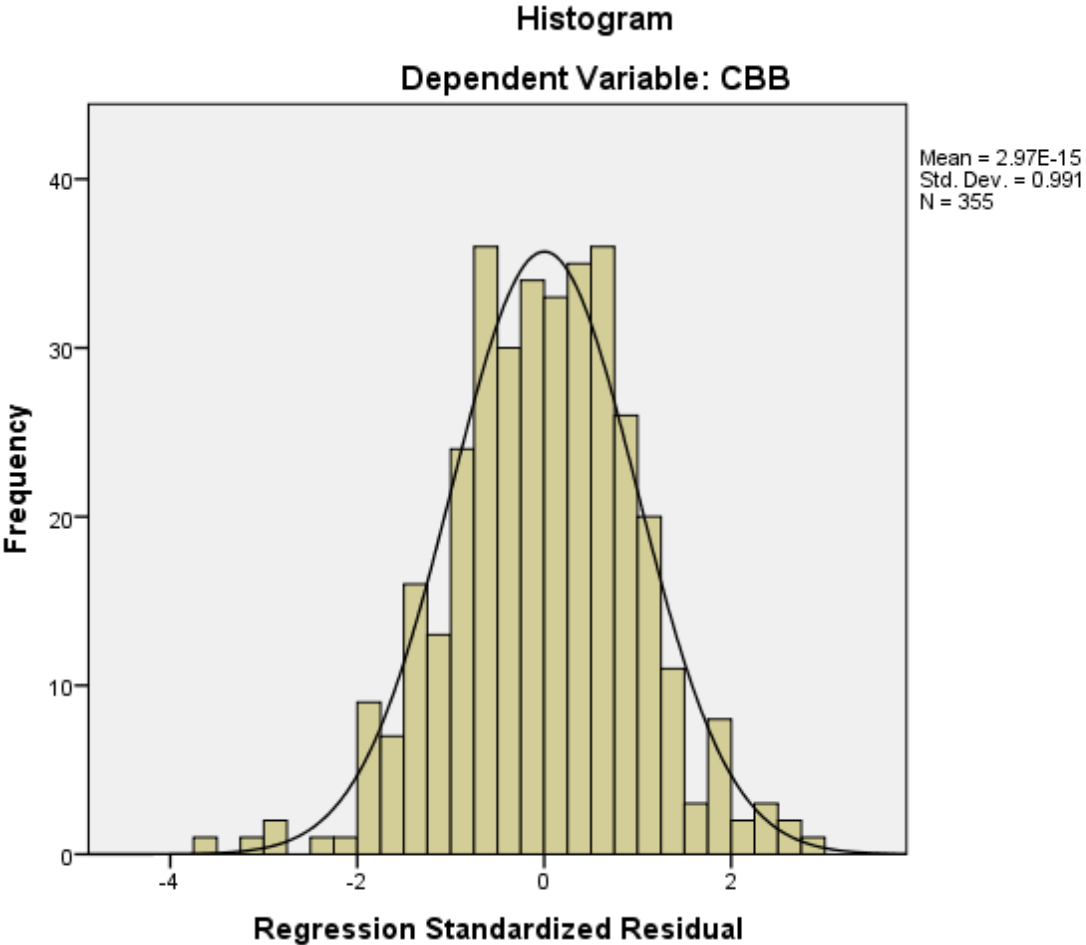
	የሽማግሌ ስህተት	1	2	3	4	5
1	አንዴ የ ረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶችን ከመረጥኩ ወዲህ በየጊዜው እገዛለሁ።					
2	ሳሙና እና የማፅጃ ምርቶችን ለመግዛት ሳብስብ ቀዳሚ ምርጫዬ የረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች ነው።					
3	የ ረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶችን ለመሸመት አስፈላጊውን ዋጋ አወጣለሁ።					
4	የ ረገጥ ዊልማር ሳሙና እና ማፅጃ ምርቶች ላይ የሚገኘውን የአስተሳሰብ አይነቶች በምገዛው እቃ ላይ ትልቅ አስተዋፅኦ አሳድሮበኛል።					

### Appendix 3

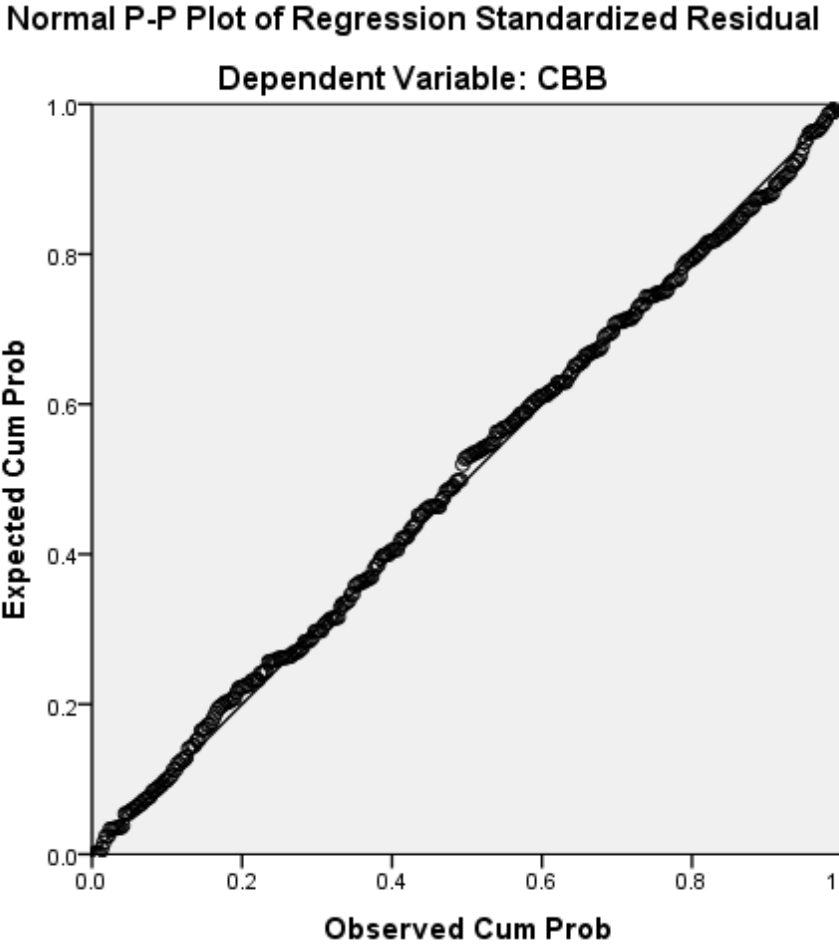
Sample frame of major supermarkets in Addis Ababa

Table 1: Grocery Store Chains in Addis Ababa, Ethiopia	
Store Name	# of Locations
1. Shoa Supermarket & Hypermarket	9
2. Safeway Supermarket	3
3. Fantu Supermarket	2
4. Novis Supermarket	2
5. All-Mart PLC	2
6. Bambis Grocery	1
7. Friendship Supermarket	1
8. Loyal Supermarket	1

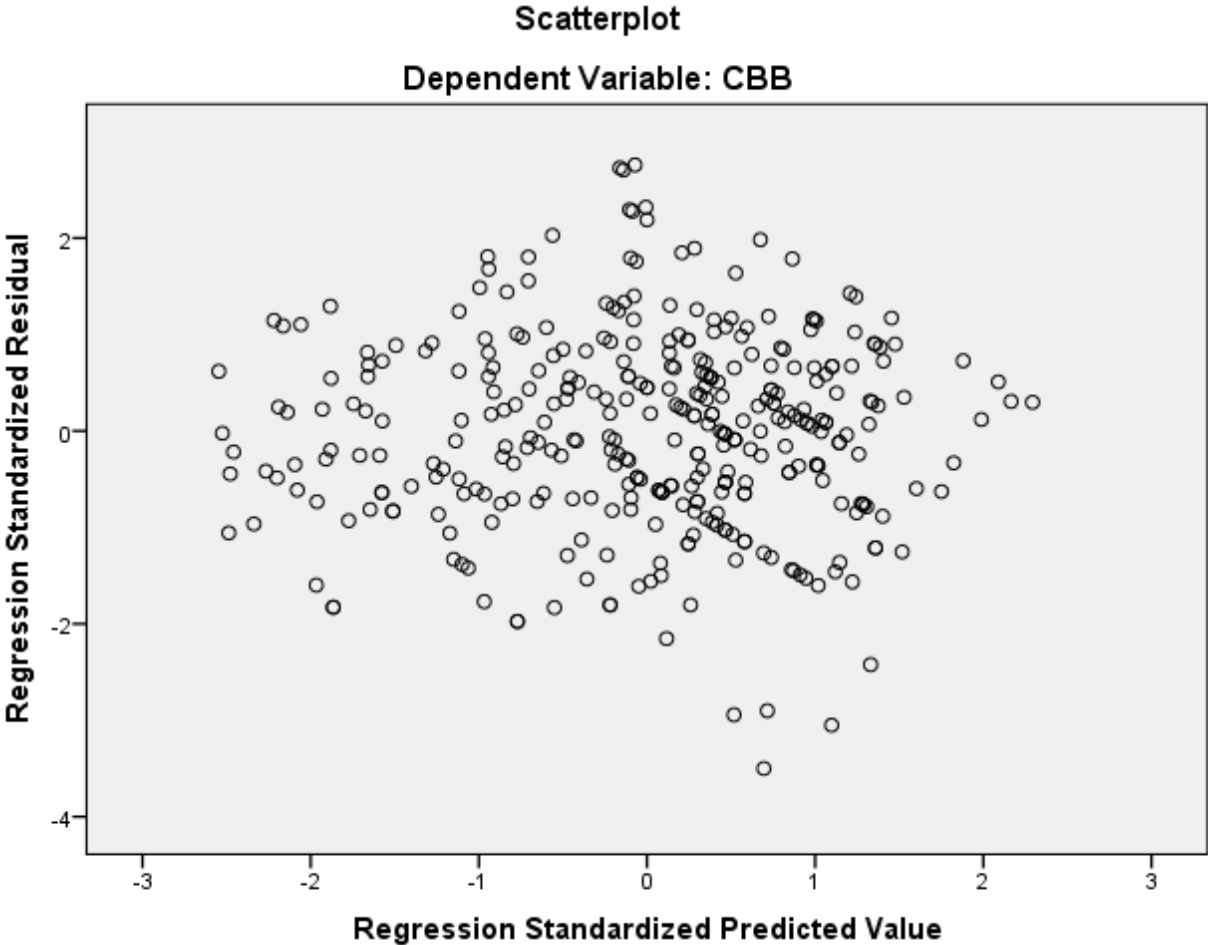
**Appendix 4: Histogram for Normality Test of the Data**



**Appendix 5: Normal P- P Plot to Test Normality of the Data**



**Appendix 6: Scattered Plot**



**Appendix 7: Pictorial evidence of product information of Repi Wilmar soap and detergent products.**

Diva Multipurpose soap



Rol Powder Detergent



Tiffany beauty soap



Largo Liquid Detergent



Ajax Window Cleaner

