

**FACTORS INFLUENCING THE PURCHASE OF HAND
WASHING DETERGENTS:
A CASE OF VEGETABLE PROCESSING FACTORIES
IN KENYA.**

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D61/7103/2003

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A Research Project Submitted in Partial Fulfillment of the Requirements for the Degree of
Master of Administration (MBA), School of Business, University of Nairobi

October, 2009

DECLARATION


This research Project is my original work and has not been presented for a degree in any other university.

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Signed.......... Date.....11/11/2009.....

This research project has been submitted for examination with my approval as the University Supervisor

Dr Raymond Musyoka

Signed.......... Date.....11-11-09.....

DEDICATION

This research project is dedicated to my daughters, Hope, Grace and Margaret for all the sacrifices they made as I worked on the research. They have been a great source of inspiration.

ACKNOWLEDGEMENT

I would like to appreciate God the almighty for keeping me alive and for giving me good health, the ability, the will, and determination which enabled me to carry out the research.

I would also like to most sincerely thank Dr Raymond Musyoka for guiding me when carrying out the research and especially for his patience even when I did not meet agreed deadlines. Without his help, I would not have completed the research. My thanks also go Dr Catherine Ngahu who was my moderator for her invaluable input.

I would like to express my deepest gratitude to my daughters Hope, Grace and Margaret for their patience and encouragement when I was carrying out the research.

Special thanks goes to my mum Margaret Wairimu, my niece Daisy Wangari and Florence Wambui for taking care of my daughters when I was away working on the research. May God bless them abundantly.

Lastly and not least, I would like to thank all those who helped me in one way or the other when carrying out the research.

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ABSTRACT

This research is founded on the theory of consumer behavior and motivation and the driving force within individuals that impels them to action based on their felt needs. To influence consumer behavior, motivational factors have to be well understood through research and correctly adopted using the principles of marketing and marketing mix elements (product, price, place and promotion).

It is against this background that this study set out to determine the factors that influence the choice of hand washing detergents in the vegetable processing factories in Kenya. The study also sought to determine the extent each factor influenced the purchase decision as well as the relationship between the factors. Several studies on consumer behavior on other products have been undertaken but there is no available research that has been carried out regarding the factors that influence the choice of hand washing detergents.

The methodology adopted descriptive research design where both descriptive and inferential statistics were used. The sampling frame comprised vegetable processing factories in Kenya. Simple random and purposive sampling methods were used to select the respondents and primary data was collected using a structured questionnaire. The data collected was analyzed using statistical package for social sciences (SPSS) program.

According to the findings, the key factors that influence the choice of the hand washing detergents are efficacy, smell, information about the detergent, safety of the user, and the well being of the user.

The researcher recommends further research to be carried out in other food processing factories to validate the findings of this research. The researcher also recommends that a research should also be carried out in the consumer market segment to determine the influence of the identified factors in hand washing detergents purchase decision. The Government and industry players need to come with policy frameworks in line with the factors identified as key in influencing the purchase choice of hand washing detergents.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

With the ever increasing world population, there is an increasing demand for food to feed the population and for other resources such as water, energy and shelter. The world population is showing “explosive” growth. By October 2008, the world population was estimated to be 6.7 billion people. The explosive world population has great implications for business because a growing population means growing human needs.

(<http://www.doxtop.com/browse/4b6100dc/world-population-datasheet-2008.aspx>).

There is also an increased level of health consciousness and consumers today are very concerned about the quality of food they are eating. According to a survey conducted by the Food Standards Agency, consumers are taking an active interest in the quality of the food they eat. A survey conducted in 2005 showed that fifty three percent of the consumers check labels for salt content, forty eight percent check for the sugar content and sixty percent check the labels for fat content. Key to the quality of the food is the level of cleaning and disinfection in the food processing factories. Health care specialists agree that the single most effective way to prevent the transmission of disease is by washing your hands. Un-washed hands are thought to be responsible for twenty five percent of food-borne illnesses and a major means of transmission for severe acute respiratory syndrome (SARS), meningitis, hepatitis and the common cold (<http://www.fags.org/nutrition/Hea-Irr/illnesses-Food-bourne.html>). The most important times to wash your hands are after using the toilet, or handling a diaper, handling raw food such as chicken, sneezing or coughing into your hand or being out in public.

In Kenya, some of the vegetables sold in the supermarkets are processed on a commercial basis in factories spread across the country but with the majority of the factories being located in Nairobi. Most of the vegetables are exported to international chains of supermarkets in Europe. Cleaning and hygiene in the food processing industry is of paramount importance to ensure removal or elimination of micro organisms which if not done will lead to spoilage of the food

and may lead to food poisoning of the consumer. (<http://www.fags.org/nutrition/Hea-Irr/illnesses-Food-bourne.html>).

In Kenya the process of cleaning hands in the vegetable processing factories is taken very seriously especially because most of the vegetables are exported to the European market, where the standards of hygiene are very high and stringent. At the centre of the cleaning and hygiene programs is the washing of hands of the operators handling the vegetables. Each operator must wash his or her hands thoroughly before entering the production area to ensure that he does not transfer micro organisms from his hands to the food being processed. The washing is done using bactericidal hand washing detergents. The effectiveness of the detergents is determined by taking microbiological swabs of the operator's hands before and after cleaning, incubating the swabs and testing the reduction of the micro-organisms on the hands. An effective bactericidal detergent should have a hundred per cent kill of the micro-organisms to prevent the contamination of the food by micro-organisms from the operator's hands.

There are several companies supplying the hand washing detergents. The detergents differ in packaging, colour, viscosity, price, efficacy and branding. Due to the many suppliers of the detergents, the competition in this industry is very stiff and for a supplier to survive and retain customers, she must clearly understand what the key needs of the customers are and then come up with marketing programs that meet those needs better than the competition. The company must therefore design marketing programs that motivate the customers to buy its products other than the competing brands.

1.1.1 The Concept of Consumer Motivation

Motivation is the driving force within individuals that impels them to action. This driving force is produced by a state of tension, which exists as the result of an unfulfilled need. Individuals strive both consciously and subconsciously to reduce this tension through behaviour that they anticipate will fulfill their needs and thus relieve them of the stress they feel. The specific goals they select and the patterns of action they undertake to achieve their goals are the results of individual thinking and learning (Schiffman and Kainuk, 2004).

While as the consumer cannot knowingly be induced to act in a way contradictory to his or her own goals or purposes, motivation and behavior can be influenced by outside sources (Engel et al, 1978). This influence is not successful however unless motivational factors are understood through research and correctly adapted through the product offered, price, distribution and promotion. In other words, the total marketing offering must be designed so that the consumer perceives its features as providing an answer to a perceived problem and felt needs.

An important reason for studying consumer behavior and motivation is evaluation of consumer groups with unsatisfied needs or desires. Requirements for success of an organization include not only the ability to recognize unmet needs but also to understand whether those needs will be expressed as economically feasible markets and what organizational responses are required for success in selling to those needs (Engel et al, 1978). In a consumer behaviour context, the results is a desire for a product, service, or experience. It is the drive to satisfy needs and wants, both physiological and psychological, through the purchase and use of products and services.

1.1.2 Overview of the Hand Washing Detergents in the Vegetable Processing Factories in Kenya

Washing of hands in the vegetable processing factories is an elaborate and critical process that is carried out by every operator before entering a processing hall. The hands are washed using a combination of water and bactericidal detergents. There are many suppliers of the detergents and the detergents vary in terms of packaging, colour, viscosity, price, efficacy and brand names. From a consumer behavior perspective, it is important to investigate what factors and to what extent they influence the purchase of hand washing detergents in the food processing factories in Kenya. The knowledge of any relationship and its extent will particularly be of importance to the manufacturers of the detergents as it will guide them on the factors to focus on to best satisfy the needs of their customers. There are several suppliers of hand washing detergents in Kenya and they can be classified into Multinationals and local based companies. The multinationals are two in number, JohnsonDiversey and Ecolab. The local based companies are eighteen. The ownership of JohnsonDiversey is Anglo-American while Ecolab is American. The top management in both companies is by Kenyans. JohnsonDiversey and Ecolab supply global

brands while as the local companies supply either close imitations of the JohnsonDiversey/Ecolab products or locally formulated products designed to meet the needs of specific customers. Majority of the local companies are owned by Asians of Indian origin with only a few of them being owned by indigenous Kenyans. JohnsonDiversey and Ecolab control about fifty percent of the market share with the balance being shared by the local companies. However, the market share is volatile and will vary from month to month and from year to year. The level of competition is very stiff as the total number of major customers targeted is small (thirty eight). (Appendix 1).

The barriers to entry are low as there is no government regulation in this industry. All that is required is capital to set up the business and access to formulation for the detergents which are not difficult to come by because most of the technical employees in the local companies are ex-employees of either JohnsonDiversey or Ecolab. As a result, there are several entrants into the industry each year. However, due to the high level of competition, there are also many exits each year by companies that cannot survive and have therefore to close down. The products in this industry tend to have short life cycles due to customers' changing needs such as on efficacy, packaging, viscosity, color and smell. The life cycles are also influenced by new products coming out of the Research and Development of the multinational companies which bring changes in the entire industry

1.2 Statement of Problem

The Knowledge of buyer behaviour is very important to every marketer, especially in the changing world. The business world has changed dramatically. Organizations today confront new markets, new competition and increasing customer expectations, hence need to efficiently understand and manage the information about competitors, their strategies, their products, markets trends, customer requirements and technological developments (Laudon, 2000).

A customer's purchase choice can be influenced by several factors. These factors can either be product related, psychological variables, social influence variables or purchase situation variables (Etzel et al, 2007). Product related variables for detergents include factors such as price, color, efficacy, viscosity, brand, packaging and smell. Psychological related variables include

perception, attitude, personality, lifestyle and learning. Social influence variables include social class, reference groups and culture. Purchase situation influence variables include purchase reason, time and surroundings.

The marketing of hand washing detergents in the food processing industry is very competitive because there are many suppliers and the number of target customers is small. The different suppliers will compete on price, distribution efficiency, packaging, product performance and by forming very close relationships with the customers.

The vegetable processing industry has minimal government regulations and control. The only regulation from the Government is through Kenya Bureau of Standards which has set some standards for hand washing detergents. The standards are however too general in nature and only states minimum standards that must be met. The industry is highly regulated by the customers of the processed vegetables who are mostly supermarkets in United Kingdom and a number of other European countries. The supermarkets have set clear guidelines as to the detergents that are approved for use in the industry and have even gone further to issue guide lines on the raw materials that can or cannot be used in the manufacture of the detergents. They also conduct bi-annual audits in the food processing industries to ensure the set standards are being adhered to. As a result of this control by their end customers, the customers in this industry are very demanding and always looking for better performing detergents at more competitive prices. There is an emerging trend whereby the customers are demanding for organically derived chemicals which are not easy to manufacture and the raw materials are scarce. This is a turning out to be a niche market for the multinational companies as the local ones do not have the capability to produce the chemicals.

The ownership of the vegetable processing factories is quite varied. Majority of the big ones are internationally owned. Most of the remaining ones are Indian and indigenous Kenyans owned. There is a tendency for the Indian owned vegetable processing factories to buy their hand washing detergents from Indian owned detergent manufacturing companies. This could be through negotiated prices, business relationships where the vegetable processing factories also sell some of their products to the detergent suppliers or simply due to some personal friendship

between the directors of the companies. This at times works negatively for the multinational detergent suppliers and to overcome this challenge, they keep on coming up with innovative products or looking for niche markets within the industry.

From literature review, the researcher has not been able to find out any study on the factors that influence the purchase of hand washing detergents in the Vegetable processing factories in Kenya. The only available information on detergents is from a research on factors influencing the success of new detergents in Kenya (Omondi, 1999). Other related researches conducted include consumer motivation in the buying of mobile phones in Westland area (Gachugu, 2007), and factors that influence consumers' choice of cigarette brands in Nairobi (Mwende, 2005). In view of this research gap, the determinants influencing consumer behavior needs to be analyzed further in greater detail.

Therefore this study seeks to establish factors that influence the purchase of hand washing detergents in the vegetable processing factories in Kenya.

1.3 Research Objectives

The study had three specific objectives which were:

- (i) To determine factors influencing purchase of hand washing detergents in the vegetable processing factories in Kenya.
- (ii) To determine to what extent each of the factors influences the purchase decision.
- (iii) To determine the relationship between the factors that influences the detergent purchase decision.

1.4 Significance of the Research

The manufacturers of hand washing detergents will benefit from the research by adopting more effective marketing programs. From a managerial perspective, consumer analysis is essential for evaluating new market opportunities, choosing market segmentation, increasing

efficiency of marketing strategy and tactics and improving sales performance (Kotler, 1984). They will adopt the preferred parameters into their detergents to better satisfy their customers' needs and grow their sales.

The most challenging concept in marketing deals with understanding why buyers do what they do or don't (Engel et al 1978). But such knowledge is critical for marketers since having a strong understanding of buyer behavior will help shed light on what is important to the customer and also suggest the important influences on customer decision making. The management of the vegetable processing factories will therefore benefit by understanding the parameters preferred by their employees and asking their suppliers to incorporate those parameters into the products. By so doing, they will be addressing both the psychological and hygiene needs of their employees which will lead to better performance.

The employees of the food processing factories will benefit by being supplied by detergents that are safe and friendly to their skins thereby protecting their health. They will also benefit by being supplied with effective detergents that will make their work more efficient and effective. They will also benefit by having their psychological needs met. All these will lead more satisfied employees which will lead to better performance.

The Government and policy makers in the food processing industry will benefit as they will be able to come up with appropriate policies to regulate the industry and to protect the consumers. Analysis of consumer behavior is increasingly an essential input in formulating public policies, in understanding the role of marketing in society and in understanding the nature of planning in a society that permits individual choices (Engel, 1978).

Researchers will benefit as more knowledge will be added into the body of knowledge existing on consumer motivation and especially on factors influencing the customers in making the purchase decisions when buying hand washing detergents. Understanding why consumers do what they do (or don't) is one of the most challenging tasks facing marketers. This is because factors influencing how customers make decisions are extremely complex (Engel et al 1978). The research will help in gaining more insight into this challenge.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The Knowledge of buyer behaviour is very important to every marketer, especially in the changing world. The business world has changed dramatically. Organizations today confront new markets, new competition and increasing customer expectations hence need to efficiently understand and manage the information about competitors, their strategies, their products, markets trends, customer requirements and technological developments (Schiffman and Kainuk, 2004).

Consumer motivation and behavior can be understood through research. Consumer behavior is a process of which the purchase is only one stage. There are many underlying influences, both internal and external from the social environment. The combination of these inputs and internal factors can be complex indeed. Yet the tools of marketing research can assess motivation and behavior with considerable accuracy. The most challenging concept in marketing deals with understanding why buyers do what they do (or don't). Such knowledge is critical for marketers since having a strong understanding of buyer behaviour will help shed light on what is important to the customer and also suggest the important influences on customer decision making. Using this knowledge, marketers can create marketing programs that are of interest to the customers (Engel et al 1978)

Factors influencing how customers make decisions are extremely complex. Buyer behaviour is deeply rooted in psychology with elements of sociology. Since every person in the world is different, it is impossible to have simple rules that explain how buying decisions are made (Engel et al 1978). Consumers are faced with purchase decisions nearly everyday. Not all the decisions are treated the same. Some decisions are more complex than others and thus require more effort by the consumer. Others are fairly routine and require little effort. Understanding consumer purchase behaviour involves not only understanding how decisions are made but also understanding the dynamics that influence purchases. The influences can either be internal (intrinsic) or external (extrinsic). Intrinsic influences concern the physical characteristics of the

product such as size, color, flavor or aroma. In some cases, consumers use physical characteristics e.g. the flavor of ice cream or cake to judge the product quality. Consumers like to believe that they base their evaluations of product quality on intrinsic influences because that enables them to justify their decisions as being “rational” or “objective” product choices. Extrinsic influences include packaging, pricing advertising and even peer pressure (Schiffman and Kanuk, 2004)

The researcher has not been able to find evidence of any study conducted in Kenya to determine the factors that influence the purchase of hand washing detergents in the vegetable processing factories. A study has been conducted on factors influencing the success of new detergents in Kenya (Omondi, 1999). Several studies have been conducted on motivation; consumer motivation in the buying of mobile phones in Westlands area (Gachogu, 2007), influence of packaging and labeling on consumers’ perception of dry cells’ quality in selected estates in Makadara (Wachira, 2002) and a survey of factors that influence consumers’ choice of cigarette brands in Nairobi (Mwende, 2005). There is no available research on what motivates consumers in making their purchase decisions for hand washing detergents in the food processing factories in Kenya.

A study was carried out on the factors that influence the success of new detergents (Omondi, 1999). In this research, the population of interest consisted of all the detergent manufacturing firms in Nairobi which had introduced at least one new product in the decade. It was a census study where all thirty eight firms were studied. This was in order to avoid errors associated with sampling methods. Both primary and secondary data were used in the study. Primary data was collected using a structured questionnaire. The respondents were selected on the basis of “Functional neutrality” and having overall knowledge of the firms total new product efforts. In small firms, the managing Director was interviewed but in larger firms, the division manager or the company’s new product development manager was interviewed. The collected data was then statistically interpreted. The research found out that the key factors in the success of a new detergent were a firm’s resources (financial, sales force, distribution network and advertising) and the firms marketing knowledge such as understanding the consumers’ changing needs and also the firm’s expertise in product launch.

A study on the influence of packaging and labeling on consumer perception of dry cells quality was carried out in 2002 (Wachira, 2002). This was a descriptive research. Data was collected from consumers of dry cells, processed and interpreted. The population of interest was restricted to specific estates in Makadara Division of Nairobi. Consumers were taken to mean anybody who could make or influence a purchase decision and who used dry cell powered appliances like torches, radios, remote appliances and toys. Judgmental sampling was used in choosing the four estates that were sampled. One hundred and ninety users of dry cells were interviewed. This was in line with the widely held rule of thumb; to be representative, a sample should have thirty or more test units (Terrell and Wayne, 1979). The study used primary data collected using a questionnaire with both close ended and open ended questions. The data collected was then analyzed using descriptive statistics whereby the opinions and perception on quality of the dry cells held by the consumers were assessed on likert type scale. The research found out that the consumers were more influenced by quality of the dry cells, the voltage (performance), expiry date, colour, information about the battery and the brand name. The consumers were also influenced by the quality of the package, the manufacturer, price, distribution network and promotions.

A research was carried out in 2007 on the factors that influence consumer purchasing decisions in the case of mobile phones in the Westlands area (Gachugu, 2007). This was a survey research whereby primary data was collected at shopping malls using a questionnaire administered personally. The population of study comprised shopping malls in Westlands area (Sarit Centre, West Gate, Ukay, The Mall and old Uchumi). Respondents comprised of youths, young adults and older people. Respondents were chosen using convenience sampling basis and quota sampling applied. Face to face interviews were used to collect the data which was then entered into a structured questionnaire. The questionnaire had both open and close ended questions. Descriptive statistics was used to analyze the data using means, modes, percentages and frequency distributions.

A survey was carried out in 2005 on the factors that influence consumers' choice of cigarette brands in Nairobi (Mwende, 2005). This was a descriptive survey research where primary data

was collected from cigarette smokers located in a few selected estates in Makadara in Nairobi. The estates to be researched were selected at random from a list of seventy estates derived from an economic survey done in 2001. One bar from each estate was picked at random for the study. In each bar ten respondents were picked at by judgemental technique for the study. Statistical techniques were used to analyze the data collected. The research found out that the most important factors in influencing the choice of a cigarette brand were satisfaction derived from smoking the brand, price, perceived quality. Level of menthol in the cigarette and the taste.

2.2 Consumers and their Buying Behavior

Although we can't directly observe a consumer's decision making process, there is much research and many different opinions about how it works. These different theories lead to different forecasts about how consumers will behave (McCarthy and Perreault, 1991). This can be summarized through the buyer behavior model which prepossess that a consumer's behavior will be influenced by psychological variables, social influences and the purchase situation.

2.2.1 Psychological Influences on Consumers

Psychological influences within an individual include motivation, perception, learning, attitude and personality. Everybody is motivated by needs and wants. Needs are the basic forces that motivate a person to do something. Some needs are concerned with a person's physiological well being, others with the individual's self view and relationship with others. Needs are more basic than wants. Wants are "needs" that are learned during a person's life (McCarthy and Perreault, 1991). For example , everyone needs water or some kind of liquid, some people have also learned to want specific brands of water. When a need is not satisfied, it may lead to a drive. The need for liquid for example leads to thirst drive. A drive is a strong stimulus that encourages action to reduce a need. Drives are internal, they are the reasons behind certain behavior patterns. Making a product purchase is the result of a drive to satisfy some need.

A person may have several reasons for buying at the same time (McCarthy and Perreault, 1991). This can be explained using a modified Maslow's five level hierarchy of needs. The hierarchy is

modified into a four level one that is easier to apply to consumer behavior. The hierarchy has physiological, safety, social and personal needs. Physiological needs are concerned with biological needs, food, drink, rest and sex. The safety needs are concerned with protection and physical well being. The social needs are concerned with love, friendship, status and esteem, things that involves a person's interaction with others. The personal needs on the other hand are concerned with an individual's needs for personal satisfaction unrelated to what others think or do. Example includes self-esteem, accomplishment, fun, freedom and relaxation. Motivation theory suggests that we never reach a state of complete satisfaction. As soon as lower-level needs are reasonably satisfied, those at higher levels become dominant. The need hierarchy idea can explain why consumers will buy but economic needs help to explain what specific product features they will select.

Economic needs are concerned with making the best use of a consumer's time and money, as the consumer judges it (Stanton et al, 2007). Some consumers look for the lowest price, others will pay extra for convenience. While others may weigh price and quality for the best value. Economic needs include economy of purchase or use convenience, efficiency in operation or use, dependability in use or improvement of learning. Marketing managers should be more alert to new ways to appeal to economic needs. Carefully planned place decisions can make it easier and faster for customers to make a purchase. Products can be designed to last longer and require less service. Promotion can explain product benefits in terms of measurable factors, like the length of guarantee.

Perception determines what people see and feel. We are constantly bombarded by stimuli, ads, products, stores etc, yet we may not hear or see anything because we apply selective processes (McCarthy and Perreault, 1991). Selective exposure is when our eyes and minds seek out and notice only information that interests us. Selective perception is when we screen out or modify ideas, messages and information that conflict with previously learned attitudes and beliefs. Selective retention is when we remember only what we want to remember. Our needs affect these selective processes and current needs receive more attention. Marketers are interested in these selective processes because they affect how target consumers get and retain information. This is why marketers are interested in how consumers learn (Stanton et al, 1991)

Learning is a change in a person's thought processes caused by prior experience. (Bearden et al, 1995). Example a little girl tastes her first ice-cream cone and learning occurs. In fact almost all consumer behavior is learned. Sometimes marketers try to identify cues or images that have positive associations from some other situation and then relate them to their marketing mix. For example many people associate the smell of lemons with a fresh natural cleanliness. Lemon scent is often added to household cleaning detergents because of these associations (McCarthy and Perreault, 1991). Some needs are culturally (or socially) learned. The need for food for instance may lead to many specific food wants. Many Japanese enjoy raw fish and their children learn to like it, few other people however have learned to like raw fish (Stanton et al 2007).

An attitude is a person's point of view toward something. The "something" maybe a product, an advertisement, a salesperson, a firm or an idea (Stanton et al, 1991). Attitudes are an important topic for marketers because attitude affects the selective process, learning and eventually the buying decisions people make. Because attitudes are usually thought of as involving liking or disliking, they have some action implications. Marketers generally try to understand the attitudes of their potential customers and work with them. It is economical to work with consumer attitudes than to try to change them because attitudes tend to be enduring. Changing present attitudes especially negative ones is probably the most difficult job that marketers face. A belief is a person's opinion about something (Stanton et al, 1991). Beliefs may help shape a consumer's attitude but don't necessary involve any liking or disliking. It is possible to have a belief for example that Listerine has medicinal taste, without caring what it tastes like.

2.2.2 Social Influences on Consumers

Social influences that affect consumer behavior include family, social class, culture and reference groups (Bearden, 1995). We are all influenced by the people around us, especially when it comes to family members. A husband or wife may have strong personal preferences about some purchase but they may change quickly if the other spouse has a different priority. The preference of one spouse might change because of the affection for the other or because of the other's power and influence. Although one family member may go to the store and make a

specific purchase, other family members may have influence the decision or really decided what to be bought. Still others may use the product. Many buying decisions are made jointly and thinking only about who actually buys the product can misdirect the marketing strategy.

A social class is a group of people who have approximately equal social position as viewed by others in the society (Kotler, 1994). Almost every society has some social class structure. Children start out in the same social class as their parents but they can move to different social class depending on their educational levels or the jobs they hold. Marketers want to know what buyers in various social classes are like. Simple approaches for measuring social class groupings are based on a person's occupation, education and type and location of housing. By using marketing research surveys or available census data, marketers can get a feel for the social class of a target market. The social class is normally divided into upper class, middle class and lower class. Even with the classes, there sub classes. The different classes buy different brands of products, shop at different stores, prefer different treatment by sales people and have different spending and saving habits.

A reference group is the people to who an individual looks when forming attitudes about a particular topic (Schiffman and Kainuk 2004). People normally have several reference groups for different topics. Some they meet face to face, others they may just wish to imitate. In either case, they may take values from these reference groups and make buying decisions on what the group might accept.

An opinion leader is a person who influences others. Opinion leaders aren't necessary wealthier or better educated. And opinion leaders on one subject are not necessarily opinion leaders on another subject. Each social class tends to have its own opinion leaders. Some marketing mixes are aimed especially at these people since their opinion affects others and research shows that they are involved in many product related discussions with the followers (Stanton et al 2007).

Culture is the whole set of beliefs, attitudes and ways of doing things of a reasonable homogenous set of people. People within these cultural groupings are more similar in outlook and behavior (Bearden, 1995). It is also useful to think of subcultures within such groupings. The

attitudes and beliefs that we usually associate with culture tend to change slowly. From target marketing point of view, a marketing manager will probably want to aim at people within one culture or subculture. If a firm is developing strategies for two cultures it often needs two different approaches.

2.2.3 Purchase Situation Influence on Consumers

Consumers are affected by the purchase reason. Why a consumer is making a purchase can affect buying behavior (Stanton et al 2007). For example, a student buying a pen for her own use might pick up an inexpensive Bic. But if the same student wanted to buy a pen as a gift for a friend, she might choose a Cross. Time is also a purchase situation influence. When a purchase is made and the time available for purchase also influences behavior (Stanton et al 2007). A leisurely dinner prompts different behavior than grabbing a quick cup of coffee on the way to work. Surroundings affect buying too. Surroundings can affect buying behavior (Stanton et al 1991). The excitement of an auction may stimulate impulse buying. Surroundings may discourage buying too. For example some people don't like to stand in a check out line and have others look at what they are buying even if the other shoppers are complete strangers. Needs, benefits sought, attitudes, motivation and even how a consumer selects certain products all vary depending on the purchase situation. So different purchase situations may require different marketing mixes even when they involve the same target market.

2.3 The Consumer Buying-Decision Process

To deal with the marketing environment and make purchases, consumers engage in a decision making process. The consumer goes through a series of logical stages to arrive at a decision (Etzel et al, 2007). The decision making process a consumer goes through are as follows;

- (a) Need recognition – The consumer is moved to action by a need or desire. Everyone has unsatisfied needs and wants that create discomfort. Some needs can be satisfied by acquiring and consuming goods and services. Thus the process of deciding what to buy begins when a need that can be satisfied through consumption becomes strong enough to

motivate a person. This need recognition may arise internally (for example when you are bored), or the need may be dormant until it is aroused by an external stimulus as an ad or the sight of a product. The decision process can also be triggered by the depletion of an existing product (your pen runs out of ink) or dissatisfaction with a product currently being used.

- (b) Identification of alternatives – When a satisfactory number of alternatives have been identified, the consumer must evaluate them before making a decision. The evaluation may involve a single criterion or several criteria against which the alternatives are compared.
- (c) Purchase and related decisions – After searching and evaluating the consumer must decide whether to buy or not. Thus the first outcome is the decision to purchase or not to purchase the alternative evaluated as most desirable. If the decision is to buy, a series of related decisions must be made regarding product features, where and when to make the actual transaction, how to take delivery or possession, the method of payment and other issues. So the decision to make a purchase is really the beginning of an entirely new series of decisions that may be as time consuming and difficult as the initial one.
- (d) Post purchase behavior – What a consumer learns from going through the buying process has an influence on how he or she will behave the next time the same need arises. Furthermore, the consumer has learned new opinions and beliefs and revised old ones.
- (e) Post purchase cognitive dissonance – This is a state of anxiety brought about by the difficulty of choosing from among desirable alternatives. Unfortunately for marketers, dissonance is quite common and if anxiety is not relieved, the consumer may be unhappy with the chosen product even if it performs as expected. Post purchase cognitive dissonance occurs when each of the alternatives seriously considered by the consumer has both attractive and unattractive features. Consumers try to reduce their post purchase anxieties by avoiding information (such as ads for the rejected product) that is likely to

increase the dissonance. They seek out information that supports their decision, such as assurance from friends.

2.4 Business Markets and Business Buying Behavior

The business market consists of organizations that buy goods and services to produce other goods and services, to resell to other business users or consumers or to conduct the organization's operations (Stanton et al, 2007). It is extremely large and complex market spanning a wide variety of business users that buy a broad array of business. Market includes agriculture, reseller, Government services, non profit and international components. Business market demand is generally derived, inelastic and widely fluctuating. Organizational buying is the "the decision-making process by which formal organizations establish the need for purchased products and services, and identify, evaluate, and choose among alternative brands and suppliers" (Kotler and Armstrong, 1994).

As compared with consumer purchasing, a business purchase usually involves more buyers and more professional purchasing. Business buying is often done by well trained purchasing agents who spend their work lives learning how to buy better. Business buyers usually are well informed about what they are buying. Business buyers usually face more complex buying decisions than consumer buyers. Purchase often involves large sum of money, complex technical and economic considerations and interactions among many people at many levels of the buyer's organization. Business often buy directly from producers rather than through middlemen, especially for items that are technically complex or expensive. Business market demand is analyzed by evaluating the number and kinds of business users and their buying power. Business purchasing has taken on greater strategic importance. Organizations are buying more and making less under intense time and quality pressures. Organizations are concentrating their purchases and are developing long term partnership with suppliers. Business buying is normally done through a buying centre. The concept of a buying centre reflects the multiple buying influences in business purchasing decisions. The buying centre comprises of all the individuals and units that participate in the organizational buying decision process. The business marketer needs to know who are the major participants, in what decision do they exert influence and what evaluation criteria does each decision participant use. The business marketer also needs to

understand the major environmental, interpersonal and individual influences on the buying process (Stanton et al 2007).

The buying-decision process in business markets may involve as many as five stages, need recognition, identification of alternatives, evaluation of alternatives, purchase decision and post purchase behavior (Peter and Donnelly, 1991). The actual number of stages in a given purchase decision depends on a number of factors including buying motives, the type of decision, the buying centre, the buyer-seller relationship and business buying patterns (Peter and Donnelly, 1991). Business buying motives are focused on achieving a firm's objectives but the business buyer's self interest must also be considered (Stanton et al, 2007). The types of business buying situations are new tasks buy, straight rebuy or modified rebuy. The new task buy faces a company buying a product or service for the first time. The greater the cost or risk, the greater the number of decision participants and the greater their information seeking. In a straight rebuy, the buyer reorders something without any modifications. It is usually handled on a routine basis by the purchasing department. Based on past buying satisfaction, the buyer simply chooses from various suppliers on its list. In a modified rebuy, the buyer wants to modify product specifications, prices, terms, or suppliers. The modified rebuy usually involves more decision participants.

In contrast to consumer purchasing, organizational purchasing (business buying) is much more complex (Reeder, 1991). Multiple forces both internal and external to the firm exert various pressures on the ultimate decision as buyers move from problem or need recognition to their final purchase decision. Thus the effectiveness of organizational marketing strategy hinges on how well the organizational marketer understands the different types of buying situations that organizational buyers face, how they proceed through the purchasing decision process and how that process is influenced by the various needs and expectations of those who are involved in the purchasing decision.

Business buying behavior, like consumer buying behavior is initiated when an aroused need (motive) is recognized. This leads to goal-oriented activity designed to satisfy the need (Stanton et al, 2007). Marketers must try to determine what motivates the buyer and then understand the

buying process patterns of business organizations in the markets. Organizational buying behavior is a process, not an isolated act or event. It involves several stages each of which yields a decision (Hutt and Speh, 2007).

2.5 Buying Decision Process in Business

The buying-decision process in business markets is a sequence of eight steps;

- (a) Anticipation or recognition of a problem (need) – The purchasing decision process is triggered by the recognition of a problem, need or potential opportunity. Such recognition may originate within the buying organization especially when products become outmoded, equipment breaks down, or existing materials are unsatisfactory in quality or availability. It may also originate outside the buying organization with a marketer who recognizes and reveals opportunities for potential performance improvement.

- (b) General description of need – Once a problem has surfaced, organizational members must determine specifically how the situation may be resolved, that is the problem and solution alternatives must be narrowed and precisely analyzed. Thus the firm will seek answers as “what performance specifications need to be met?” “What are the application requirements?” “What type of goods and services should be considered?” and “what quantities will be needed?”. In case of technical products, either the user department or engineering will usually prepare performance specifications. For non technical items, the user department might determine the products currently on the market could solve the problem. The narrowing of the problem and alternatives is thus a task internal to the user department. While influences from outside the department maybe used as additional sources of information, critical decisions and information needs at this phase lie chiefly within the user department.

- (c) Product Specification – It is during this phase that those influences which prepare or affect specifications enter the purchasing process. During this phase, the buying

influences may change from departmental heads to engineers and manufacturing personnel. It is at this phase too that buying influencers begin to look outside the firm for supplier and product information and for assistance in developing product specifications.

- (d) Supplier Search – Once solutions have been identified and precisely described, a buying organization begins to search for alternative sources of supply. This leads to the qualifications of suppliers.
- (e) Acquisition and Analysis of Proposals – When qualified suppliers have been identified, requests for specific proposal will be made. In complex purchases, many months may be spent in exchanging proposals and counter proposals. In such purchase situations, the need for information is extensive and a great deal of time is given to analyzing proposals and comparing products and costs.
- (f) Supplier Selection – Various proposals of competing suppliers are weighed and analyzed. Negotiations with the two finalists are concluded and a supplier is chosen.
- (g) Selection of Order Routine – Order routines are established by forwarding purchase orders to the vendors and status reports to the user department and by determining the levels of inventory that will be needed over various time periods.
- (h) Performance Review – The final phase in the purchasing process consists of a formal or informal review and feedback regarding product performance as well as vendor performance. This phase involves a determination by the user department as to whether the purchased item solved the original problem. If it did not, suppliers that were screened earlier may be given further consideration.

2.6 Business Buying Behavior Influences

Organizational buying behavior is influenced by environmental forces (for example the growth rate of the economy), organizational forces (for example the size of the buying organization), group forces (for example patterns of influences in buying decisions) and individual forces (for example personal preferences), (Hutt and Speh, 2007). Among the environmental forces that shape organizational buying behavior are economic, political, legal and technological influences. Collectively, these environmental influences define the boundaries within which buyer-seller relationships develop (Hutt and Speh, 2007).

As a rule, the influence of the procurement functions in all businesses is growing. This is due to the following reasons. Globalization is upsetting traditional patterns of competition and companies are facing the squeeze from rising material costs and stiff customer resistance to price increases. To enhance efficiency and effectiveness, many firms are outsourcing some functions that were traditionally performed within the organization. The top management of most businesses around the world is now counting on the procurement function to keep their businesses strongly positioned in today's intensively competitive market place (Hutt and Speh, 2007). Multiple buying influences and group forces are critical in organization buying decisions (Hutt and Speh, 2007). The organizational buying process typically involves a complex set of smaller decisions made or influenced by several individuals. The degree of involvement of group members varies from routine re-buys in which the purchasing agent simply takes into account the preferences of others to complex new task buying situations in which a group plays an active role (Hutt and Speh, 2007). The industrial sales person must address three questions. Which organizational members take part in the buying process? What is each member's relative influence in the decision? What criteria are important to each member in evaluating prospective suppliers? The salesperson who can correctively answer these questions is ideally prepared to meet the needs of a buying organization and has a high probability of becoming the chosen supplier.

Individuals, not organizations make buying decisions. Each member of the buying centre has a unique personality, particular set of learned experiences, a specified organizational function and

a perception of how best to achieve both personal and organizational goals (Hutt and Speh, 2007). Importantly, research confirms that organizational members who perceive that they have an important personal stake in the buying decision participate more forcefully in the decision process than their colleagues. To understand the organizational buyer, the marketer should be aware of individual perceptions of the buying situation.

2.7 Perceived Risks in Business Buying and Risk Reduction Strategies

Business buying decisions often involve an element of functional risk such as uncertainty with respect to product or supplier performance or psychological risk such as negative reactions from other organizational members (Reeder, 1991). The greater the uncertainty in a buying situation and the greater the adverse consequences associated with making the wrong choice, the greater the perceived risk in the purchasing decision (Reeder, 1991). Individuals are motivated by a strong desire to reduce risk in purchase decisions. Perceived risk includes two components – uncertainty about the outcome of a decision and the magnitude of consequences from making the wrong choice (Hutt and Speh, 2007). Research highlights the importance of perceived risks and the purchase type in shaping the structure of the decision making unit. Individual decision making is likely to occur in organizational buying for straight re-buys and modified re-buys when the perceived risk is low. In these situations, the purchasing agent may initiate action. Modified re-buys of higher risks and new tasks seem to spawn a group structure (Hutt and Speh, 2007). As risk associated with an organizational purchase decision increases, the following occur;

- (a) The buying centre becomes larger and comprises members with high level of organizational status and authority.
- (b) The information search is active and a wide variety of information sources are consulted. As the decision process unfolds, personal information sources (for example discussions with managers at other organizations that have made similar purchases) become more important.
- (c) Buying centre participants invest greater effort and deliberate more carefully throughout the purchase process.

- (d) Sellers who have a proven record with the firm are favored – the choice of a familiar supplier helps reduce perceived risk.
- (e) Spread the risk – the consequences of choosing the wrong supplier can also be reduced through multiple sourcing, thus enabling buyers to choose the proportion of risk to be assumed by allocating it among different suppliers.

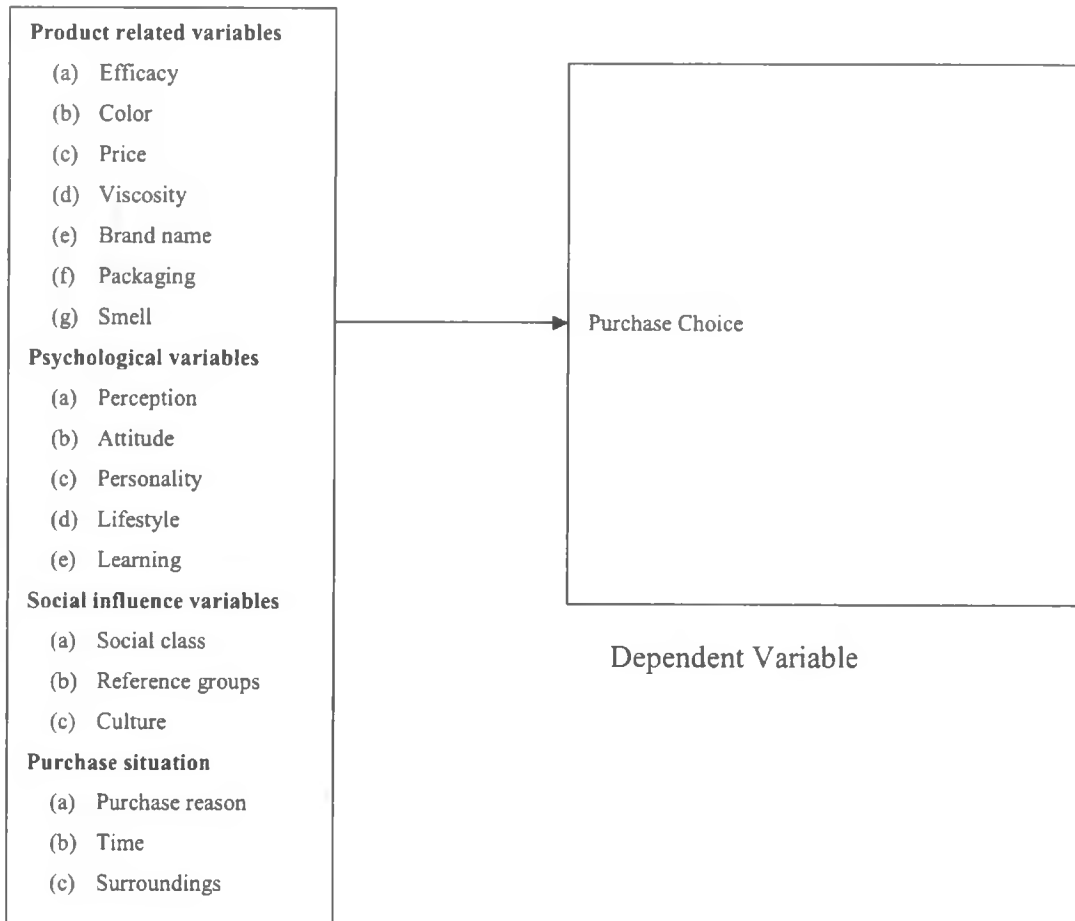
2.8 Conceptual Framework

The conceptual framework used independent variables to investigate how they affect the dependent variable. The dependent variable investigated is the purchase choice which was analyzed using independent variables shown here below. The independent variables were classified into the following groups:

- (a) Product characteristics variables
- (b) Psychological variables
- (c) Social influences variables
- (d) Purchase situation variables.

Product related variables investigated the influence of efficacy, color, price, viscosity, brand name, packaging and smell of the detergent on the purchase decision. Psychological variables studied included perception, attitude, personality, lifestyle and learning. Social influence variables investigated included effect of social groups, reference groups and culture.

Diagram 1: Conceptual framework



Independent variables

To determine which factors influenced the purchase choice and to what extent the following independent variables were used:

- (a) Quality – In choosing a product, the manufacturer has to choose a quality level that will support the product’s position in the target market. Quality is one of the marketer’s major positioning tools. Product quality stands for the ability of a product to perform its functions. It includes the product’s overall durability, reliability, precision, ease of operation and repair, and other valued attributes. Some of these attributes can be measured objectively but others cannot. From a marketing point of view, however, quality should be measured in terms of buyer’s perception. Companies must do more than

simply build quality into their products, they must also communicate product quality. The product's look and feel should communicate its quality level. Quality is also communicated through other elements of the marketing mix. A high price usually signals a premium quality product. The product's brand name, packaging, distribution, and promotion also announce its quality. In hand washing detergents one of the key measures for the detergent quality is effectiveness of the detergent in killing the microorganisms. The more microorganisms a detergent can kill, the more effective it is.

- (b) Color - Consumers tends to associate personality factors with specific colors. For example Coca-Cola is associated with red, which connotes excitement. Blue bottles are often used to sell wine because the color blue appeals particularly to female consumers and they buy the majority of wine. Yellow is associated with novelty and black frequently connotes sophistication (Schiffman and Kanuk, 2004). Different colors have different meanings to different cultures (Kotler and Armstrong, 1994). For example Purple is associated with death in most Latin American countries, white is a mourning color in Japan, and green is associated with Jungle sickness in Malaysia. A manufacture must there consider the meaning of different colors to the target market and adopt a color that is acceptable. Hand washing detergents in Kenya are supplied in many different colors such as green, blue, yellow, pink and colorless.
- (c) Viscosity - This is part of the overall product attributes and quality. Product attributes and features are a competitive tool for differentiating the company's products from competition. For the hand washing detergents viscosity is a measure of how thick or thin the detergent is which in turn determines the ease of storage and dispensation and usage rate. Customers tend to have some perception between the thickness of a hand washing detergent and its quality. Hand washing detergents are supplied in different viscosities from very thick to very thin viscosity and this affects the storage of the detergents in the dispensers and also its dispensation.
- (d) Smell - Ideally, hand washing detergents for use in the food processing factories should not have any perfume and therefore no smell. The reasoning behind this is because any

smell in the detergent will be picked up by the vegetable being processed and will lead to rejection of the vegetables by the consumers.

- (e) Packaging – Packaging includes the activities of designing and producing the container or wrapper for a product (Kotler and Armstrong, 1994). The package may include the product's immediate container (for example, the bottle holding Old Spice After Shave Lotion), a secondary package that is thrown away when the product is about to be used (the cardboard box containing the old spice) and the shipping package necessary to store, identify, and ship the product (a corrugated box carrying six dozen bottles of old spice). Labeling is also part of the packaging and consists of printed information appearing on or with the package. Traditionally, the primary function of the package was to contain and protect the product. Today packaging is designed to perform many tasks such as attracting attention, describing the product, brand recognition, safety, as carrier and as an important marketing tool. Rising consumer affluence means that consumers are willing to pay a little more for the convenience, appearance, dependability and prestige of better packaging. Companies are increasingly under pressure to pack their products in environmentally friendly packages. Hand washing detergents are supplied in many different packages from small pouches, five liter jerrycans, twenty liter jerrycans to bulk delivery. The packaging of the product influences the price of the detergent, storage and ease of use.
- (f) Price - Price is the sum of the values consumers exchange for the benefits of having or using the product or service (Kotler, 2004). In individual companies, price is one significant factor for achieving marketing success. And in many purchase situations, price can be of great importance to consumers. However it is difficult to define price. Price can be defined as the amount of money and or other items with utility needed to acquire a product (Stanton et al, 2007). Before setting a product's price, management should identify its pricing objective. Major pricing objectives include to earn a target return on investment or on net sales, maximize profits, increase sales, hold or gain a target market share, stabilize prices or meet competition prices. Besides the firms pricing objective, other key factors that influence price setting include demand for the product,

competitive reactions, strategies planned for other marketing mix elements and cost of the product (Kotler 1994).

There are three major methods used to determine the base price, these are cost plus pricing, marginal analysis and setting the price only in relation to the market (Stanton et al, 2007). For cost plus pricing to be effective, a seller must consider several types of costs and their reactions to changes in the quantity produced. A producer usually sets a price to cover total cost. The main weakness in cost plus pricing is that it completely ignores market demand. In actual business situations, price is influenced by market conditions. Hence marginal analysis which takes into account both demand and costs to determine a suitable price for the product is helpful in understanding the forces affecting price. Price and output level are set at the point where marginal cost equals marginal revenue. The effectiveness of marginal analysis in setting prices depends on obtaining reliable cost data. For many products, price setting is relatively easy because management simply sets the price at the level of competition. Pricing at prevailing market levels makes sense for firms selling well known, standardized products and sometimes for individual firms in oligopoly. Two variations of market level pricing are to price below or above competition.

(g) Brand – A brand is a name, a term sign, symbol, or design, or a combination of these, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors (Kotler and Armstrong, 1994). A brand mark is that part of a brand which can be recognized but is not utterable, such as a symbol, design, or distinctive coloring or lettering (Schiffman and Kainuk, 2004). An example is the red K on a Kodak film. Consumers view a brand as an important part of the product, and branding can add value to the product. Branding has become a major issue in product strategy. On one hand, developing a branded product requires a great deal of long term marketing investment, especially for advertising, promotion and packaging. Some manufacturers find it easier and less expensive to simply make the product and let other do the brand building for them. In Kenya the different suppliers sell their hand washing detergents under different brand names.

CHAPTER; THREE: METHODOLOGY

3.1 Design of the Study

Descriptive research design was used. The purpose of descriptive research is to provide an accurate snapshot of some aspect of the market environment. Descriptive research is normally used to determine the frequency of occurrence of market events such as frequency of customer visits to a store, lawyers being consulted, machines requiring repairs etc (Kumar, 2000). It can also be used in a non causal fashion to determine the degree to which marketing variables are related to one another. Based on this determination, predictions can be made about regarding future occurrences in the market. Descriptive research requires large quantities of data as the need for accurate portrayal of the population studied is more stringent. The research design needs to be carefully planned and structured. The intent of descriptive research is to maximize accuracy and minimize systematic error. The researcher aims to increase the reliability by keeping the measurement process as free from random error as possible.

3.2 Population

The sampling frame comprised all vegetable processing factories in Kenya as per list provided by the Horticultural Crops Development Authority (HCDA). HCDA is the body given the mandate by the Government to register all horticultural processing companies where the vegetable processing factories fall in. This list is therefore an accurate source of the sampling population. In total there are thirty eight vegetable processing companies. (Appendix 1).

3.3 Sample

A sample size of fifteen factories selected by simple random sampling was used. This represented 39.5% of the total population. In each factory, eight respondents were interviewed. The total number of targeted respondents was therefore a hundred and twenty. This was in line with the widely held rule of thumb that to be representative, a sample should have thirty or more units (Terrell and Wayne, 1979). The researcher had established that in all the factories selected,

the factory with the most number of employees was eighty. By interviewing eight employees per factory, the researcher would be collecting data from at least ten percent of the population and this is in line with the widely held rule of thumb. The respondents included the procurement manager, the quality assurance manager, the quality assurance supervisor, the production supervisor and four production technicians. For the procurement manager, quality assurance manager and quality assurance supervisor, purposive sampling was used. Purposeful sampling is confined to specific types of people who can provide the desired information (Sekaran, 2003). For the production supervisors and the production technicians, convenience sampling was used depending on the employees on duty on the day of the interview. This is because this group comprises many employees working on shift basis.

3.4 Data Collection

Data for the research was collected using a structured, disguised and undisguised questionnaire. The questionnaire (Appendix 3) had three sections, the first one was on the company biodata, the second section was on people biodata and the third section was on product biodata. The questionnaires had close ended and rating scale questions. The rating scales used included simple category scales, likert scale and ranking scales. The questionnaire was hand delivered to the respondents who were requested to spend a few minutes and answer the questions and then handed over the questionnaire back to the researcher. The same type of questionnaire was used for all the respondents. The questionnaire was used to generate primary quantitative data which was then be interpreted by the researcher.

3.5 Data Analysis

The data collected from the field was then be edited, coded and put into different categories. The data was then be keyed into a computer and a Statistical Package for Social Sciences (SPSS) software used for analysis. Both descriptive statistics (frequencies, percentages and averages) and inferential statistics (correlation analysis) methods were used. The results were displayed using frequency tables.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

Out of the targeted a hundred and twenty respondents, sixty nine responded (Table 1). This represents response rate of fifty seven percent. Reasons for non response included inaccessibility of respondents in the targeted factories, lack of cooperation by respondents and time limitation to make a follow up.

Table 1: Response rate

Response rate	Frequency	Percentage
Response	69	57%
Non response	51	43%
Total	120	100%

Source: Primary Data

4.2 Questionnaire Reliability

The reliability of the questionnaire was tested using Cochran Chi-square method. This is a test of the consistency of the respondents' answers to all the items in a measure. The model used was alpha (Cronbach), which is based on average inter-item correlation. The Cronbach coefficient alpha is appropriate for testing the reliability of a questionnaire which has multipoint-scaled items. Cronbach's alpha measures how well a set of items (or variables) measures a single uni-dimensional latent construct (Sekaran, 2003). Technically speaking, Cronbach's alpha is not a statistical test-it is a coefficient of reliability (or consistency). When data have a multidimensional structure, Cronbach's alpha will usually be low. The test on the questionnaire yielded a reliability alpha of 0.7313 (Table 2) at 95% confidence level. This alpha is greater than the 0.70 (the minimum alpha for data reliability acceptable in most social science research situations). This is an indication that the instrument was reliable for this study and if used repeatedly (across time and across various items in the instrument), it is bound to give the similar results. For the purposes of this study, this reliability was considered to be high since it measured

different multi-dimensional constructs (people biodata, product related variables, psychological variables, social influence variables and purchase situation variables) as opposed to uni-dimensional latent construct.

Table 2: Reliability analysis - scale (Alpha)

Reliability coefficients	Result
N of cases	69
N of items	35
Alpha	0.7313

Source: Primary Data

4.3 Social Demographics

It was important to study social demographics because they influence consumer buying behavior, choice and use of products and therefore very important to a company's marketing strategies. It was also important to determine whether there was any significant relationship between social demographics and product demographics.

Social demographics studied included gender, age bracket and level of education. According to the study, 65% of the respondents were male and 35% were female (Table 3). This could be explained due to the nature of working hours whereby most companies operate shifts on a twenty four basis and working at night might not appeal to most females especially the ones with families.

Table 3: Gender

Gender	Frequency	Percent
Male	45	65.2%
Female	24	34.8%
Total	69	100.0%

Source: Primary Data

In market research age is important in order to understand its significance in terms of product loyalty, product modification, product innovation and adoption and also in formulating marketing strategies.

The study reviewed that the majority of respondents (40.6%) were within the 30-34 years age bracket while the least of the respondents (11.6%) were within the 20-24 years age bracket (Table 4). There was a significant number of respondents in the 25-29 years age group (29%). Those over 35 years of age were 18.8%.

The 30-34 years age bracket, are people with significant work experience and are likely to give more reliable information on hand washing detergents. Therefore, the information given by this group should be relied upon more by the manufacturers of the hand washing detergents when coming up with new products or when modifying the existing products and also when formulating marketing strategies.

The 25-29 years age bracket is a group that would also be important in product development, product modification and in formulation of marketing strategies. The 20-24 years age group is a group that may not give information that is strategic due to their little experience in the industry. However, they would be very important when introducing innovative detergents as they have not formed hard and rigid opinions about existing detergents. They are therefore more open to try new products. The respondents who were over 35 years are likely to have very rigid opinions about existing detergents. This group would be important to a marketer who wants to consolidate brand loyalty.

Table 4: Age bracket in years

Age Bracket	Frequency	Percent
20-24	8	11.6%
25-29	20	29.0%
30-34	28	40.6%
Over 35	13	18.8%
Total	69	100.0%

Source: Primary Data

The level of education was important in order to gauge how well the respondents understand some of the technical aspects of the detergents such as efficacy, viscosity, smell, color and packaging. Majority of the respondents (42%) were university graduates (Table 5). The least group of respondents (2.9%) had an education level of below "O" level.

Respondents with University level of education dominate this industry because it is a technically driven industry which requires a high degree of professionalism and good qualifications. This group is mostly in the technical fields such as procurement, quality assurance and as heads of production. As result, people with low level of education (below "O"), are unlikely to be recruited in this industry.

The second highest number of respondents (34.8%) had "O" level standard of education. This can be explained due to the fact that the industry is not highly automated and most of the operations are carried out manually. Such operations include sorting out the produce, cleaning of the produce, cleaning of the equipments, cleaning of the factories, slicing of the produce into different sizes, packing of the final products into packages and storage. These duties do not require people with very specialized skills or academic qualifications. This group was however very important in the study since they are the majority users of the hand washing detergents due to the nature of their work. Other respondents had college level of education (13%) and "A" level of education (7.2%).

Table 5: Level of education

Education Level	Frequency	Percent
Below "O" Level	2	2.9%
"O" Level	24	34.8%
"A" Level	5	7.2%
College	9	13.0%
University	29	42.0%
Total	69	100.0%

Source: Primary Data

4.4 Product Demographics

Respondents were asked to indicate, the extent to which certain product variables derived from the conceptual framework influenced their choice of a detergent. They rated these variables using a Likert type scale (1= "not at all", 2 = "very little extent", 3 = "little extent", 4 = "great extent" and 5 = "very great extent"). Likert type scale is a modification of the basic Likert scale (which examines how strongly subjects agree or disagree with statements on a 5-point scale) to measure

other types of attributes such as perception, feelings or appreciation. The average score for each variable was then computed to determine the index, which was then matched with its Likert rating.

From the analysis of the rating of the product variables (Table 6), efficacy, smell, information about the detergent, safety of the user, and the well being of the user had the highest index of five. This means that each of them influence the purchase decision to a very great extent. In the conceptual frame, efficacy, information about the detergent and smell fall within the product related variables while as the safety and well being of the user falls within the psychological related variables (Diagram 1). Efficacy, smell and information about the detergent were considered very influential in the choice of the detergent due to the stringent hygiene requirements that are demanded by the consumers of the vegetables in the international markets. Meeting these stringent hygiene requirements gives a company competitive advantage and therefore vegetable processing companies must strive to use inputs that would help them to achieve the hygiene standards set by the consumers. In addition, efficacy of the detergent is very important because it determines the ability of the detergent to kill the microorganisms and therefore assures the consumer that the processed vegetables are safe and wholesome.

Smell is critical in this industry in the sense that the hand washing detergents used should not have any smell because if they have, it will be transmitted to the vegetables being processed. In this regard, the users are always very keen to check that the detergents do not have any smell and thus the high percentage of respondents who said that smell influenced their choice. Information about the detergent is very important to the user as it indicates to the user, the type of detergent, how to use it, how to store it, microorganisms it can kill and safety precautions to take when handling the detergent. The safety and well being of the user was also of very great concern to the respondents. This is in line with Maslow's theory of hierarchy of needs where safety and security of the individual occupies the second hierarchy after physiological needs. The issue of safety is also of key importance to the customers for the vegetables-the supermarkets- who insist that the products used in this industry must be safe to the users. They make sure that this is followed by doing periodic audits in the factories. Detergent manufacturers should therefore strive to make products that are effective, have no smell and are safe to the users and also clearly

communicate the safety aspects to potential users using information on the packing materials of the detergents.

Other variables that were rated relatively high in influencing the purchase decision include viscosity, packaging, price, manufacturer, past experience, the user's opinion, supervisor's opinion, why it was purchased, how often it was purchased and from whom it was purchased. These variables scored an average index of four thus influencing the hand washing detergent purchase decision to a great extent. This means that in absence of the variables with an index of five, these factors would play a critical role in the purchase decision. Factors that were considered to have limited influence in the choice of the detergent were color, name of the detergent, colleague's opinion and when it was purchased. The average index for each of these variables was three thus influencing the purchase decision to a little extent. The variable with the least influence in the purchase decision was who purchased the detergent. This variable had an average index of two, thus influencing the purchase decision to a very little extent. In view of the fact that the color, name of the detergent, colleague's when it was purchased and who purchased it had limited influence on the choice of the detergent, the manufacturer should therefore not spend a lot of resources on these variables.

Table 6: Rating of Product Variables

Variable	Respondents Rating		
	No of respondents	Average Index	Likert Scale Equivalent
Efficacy	69	5	Very Great Extent
Smell	69	5	Very Great Extent
Information about the detergent	69	5	Very Great Extent
Your safety	69	5	Very Great Extent
Your Well being	69	5	Very Great Extent
Viscosity	69	4	Great Extent
Packaging	69	4	Great Extent
Price	69	4	Great Extent
Manufacturer	69	4	Great Extent
Past Experience	69	4	Great Extent
Your Opinion	69	4	Great Extent
Supervisor's opinion	68	4	Great Extent
Why it was purchased	69	4	Great Extent
How often it is purchased	69	4	Great Extent
From whom it was purchased	69	4	Great Extent
Color	69	3	Little Extent
Name of the detergent	69	3	Little Extent
Colleague's opinion	69	3	Little Extent
When it was purchased	69	3	Little Extent
Who purchased it	69	2	Very Little Extent

Source: Primary Data

A cross tabulation was done between the factory ownership, gender, age bracket and education background on one side and the factors that were identified as influencing the purchase decision by a “very great extent” on the other side (Table 7). In Asian owned companies, efficacy, smell, information about the detergent and the individual’s safety had a rating of five indicating that they were considered as most important in influencing the purchase decision. The well being of the individual had a rating of four indicating that it came second after efficacy, smell, information about the detergent and safety in influencing the purchase decision.

In Government owned companies, efficacy, smell, information about the detergent, safety and the well being of the individual all had a rating of five indicating that they were all considered equally as having a very big influence in the purchase decision. In indigenous owned companies efficacy, information about the detergent, safety of the individual and the well being of the individual all had a rating of five indicating that they were considered to have great influence in the purchase decision while smell had a rating of four showing that it came second in influencing the purchase decision after the other four factors. In multinational owned companies only safety of the individual had a rating of five indicating that in these companies, safety of the individuals was considered as the most single important factor in making the purchase decision. Efficacy, smell, information about the detergent and the well being of the individual all had a rating of four indicating that they came second to safety in influencing the purchase decision.

Among the all the males interviewed, efficacy, smell, information about the detergent, safety and well being of the individual all had a rating of five indicating that they were all equally considered as having a very great influence in the purchase decision. Among the females, efficacy, smell, information about the detergent and safety of the individual all had a rating of five showing that they were considered as the most important in influencing the purchase decision. The well being of the individual had a rating of four showing that it came second in influencing the purchase decision after efficacy, smell, information about the detergent and the safety of the individual.

For the respondents below twenty years, information about the detergent and the safety of the individual had a rating of five indicating that they were considered as the most important in

influencing the purchase decision. Smell had a rating of four showing that it came second to the information about the detergent and safety of the user in influencing the purchase decision. Efficacy and the well being of the individual had a rating of three meaning that they were considered as less important in influencing the purchase decision after information about the detergent, safety of the individual and smell. For the respondents between the ages of twenty and twenty four, efficacy, smell, information about the detergent, safety and well being of the individual all had a rating of five meaning that in this age bracket, they were all equally considered as having a very great influence on the purchase decision. Similar response was observed for the respondents above the age of thirty five. For the respondents between the ages of twenty five and twenty nine, efficacy, smell, information about the detergent, safety and well being of the individual all had a rating of four meaning that where as they were important in influencing the purchase decision, they were not the most important factors. For the respondents between the ages of thirty and thirty four years, efficacy, smell, information about the detergent and the safety of the individual all had a rating of five indicating that they were perceived as having the greatest influence in the purchase decision.

Among the respondents with "O" level standard of education, efficacy, smell, information about the detergent, safety and the well being of the individual all had a rating of five meaning that they were all considered equally as having a very great influence in the purchase decision. Similar response was observed among the respondents with college level of education. Among the respondents with "A" level of education, efficacy, information about the detergent and the safety of the individual all had a rating of five indicating that they were perceived as having the greatest influence in the purchase decision among this education bracket. Among the respondents with university level of education, only efficacy and the well being of the individual had a rating of five meaning that in this education bracket these two were considered as having the greatest influence in the purchase decision. Smell, information about the detergent and the safety of the individual had a rating of four meaning that they were considered as having less influence in the purchase decision after efficacy and the well being of the individual.

Table 7: Cross tabulation between company ownership, gender, age bracket, education background and key variables

Socio-Economic Data		Key Variables				
Ownership		Efficacy	Smell	Information	Safety	Well being
	Asian	5	5	5	5	4
	Government	5	5	5	5	5
	Indigenous Kenyans	5	4	5	5	5
	Multinationals	4	4	4	5	4
Gender						
	Male	5	5	5	5	5
	Female	5	5	5	5	4
Age Bracket						
	Below 20	3	4	5	5	3
	20-24	5	5	5	5	5
	25-29	4	4	4	4	4
	30-34	5	5	5	5	4
	Over 35	5	5	5	5	5
Education Background						
	Below "O" Level	-	-	-	-	-
	"O" Level	5	5	5	5	5
	"A" Level	5	4	5	5	4
	College	5	5	5	5	5
	University	5	4	4	4	5

Source: Primary Data

4.5 Correlation between product variables

Correlation analysis was used to determine the statistical relationship between the product variables (Table 8). Correlation coefficient indicates the strength and direction of a linear relationship between two random variables (Sekaran, 2003). Since the data was categorical/qualitative, spearman correlation method was used. The spearman rank is appropriate when variables are measured on an ordinal scale (Sekaran, 2003).

The analysis reviewed a relatively high correlation between the variables "how often it was purchased" and "from whom it was purchased" ($\alpha=0.639$). Other variables that showed high correlation included, "the safety" and "well being of the respondent" ($\alpha =0.622$), "how often it was purchased" and "who purchased it" ($\alpha=0.618$), and "information about the detergent" and "the safety of the respondent" ($\alpha=0.578$). The high correlation shows that respondents perceive a

strong link between these variables. The high correlation between “how often it was purchased” and “from whom it was purchased” can be explained by the fact that purchasing the detergent from the same supplier consistently is an indication of confidence and trust in the quality of the product by the supplier.

For the senior technical staff, if the product from current supplier is meeting their quality requirements, there would be no motivation to change to a different one. For the operators and junior staff, they would perceive that if the same detergent is always being bought by their superiors from the same supplier, then it must be good. This also argument also applies to the high correlation between “how often it was purchased” and “who purchased it”. The high correlation between the “safety of the employees” and “their well being” can be explained by the natural desire by human beings to avoid harm. This is a critical issue because there have been incidences where some detergents have caused damage on the operators hands. This also applies to the high correlation between “information about the detergent” and the “safety of the respondent”. The users would like to have as much information about the detergent as possible so that they can know whether it can cause any harm on their hands. Variables that had high negative correlations included “efficacy” and “when it was purchased” ($\alpha = -0.382$), “efficacy” and “name of the detergent” ($\alpha = -0.267$), “who purchased it” and “safety of respondent” ($\alpha = -0.256$). These high negative correlations show that respondents perceive indirect relationship between these variables.

Table 8: Correlation between product variables

Variables	Viscosity	Packaging	Color	Name of detergent	Price	Efficacy	Smell	Manufacturer	Past Experience	Information about Detergent	Your Opinion on the Detergent	Your Colleague's Opinion	Supervisor's/Manager's Opinion	Your Safety	Your Well Being	Why it was Purchased	When it was Purchased	Who Purchased it	How Often it is Purchased	From Whom it was Purchased
Viscosity	1.000	.269	.158	.114	-.011	-.171	-.189	.104	.150	-.002	.152	.310	.067	-.032	.032	.099	.176	.146	.042	-.009
Packaging	.269	1.000	.309	.523	.232	-.264	-.007	.216	.291	.080	.154	.191	.109	.083	-.019	.237	.336	.225	.216	.163
Color	.158	.309	1.000	.313	-.057	.044	-.051	.240	.276	-.084	.175	.195	.165	-.069	-.018	.244	.226	.347	.249	.170
Name of detergent	.114	.523	.313	1.000	.173	-.267	-.042	.453	.050	.113	.126	.231	.233	.013	-.034	.141	.351	.267	.442	.247
Price	-.011	.232	-.057	.173	1.000	.110	.376	-.010	-.020	.139	.225	.049	.213	.265	.451	-.011	.108	-.004	.058	-.025
Efficacy	-.171	-.264	.044	-.267	.110	1.000	.479	-.131	.107	.175	.098	-.123	-.201	.283	.341	-.090	-.382	-.171	-.059	.060
Smell	-.189	-.007	-.051	-.042	.376	.479	1.000	-.040	.130	.206	.201	-.019	-.050	.353	.461	.062	-.157	-.168	.003	.009
Manufacturer	.104	.216	.240	.453	-.010	-.131	-.040	1.000	.235	.022	.324	.202	.250	.067	-.074	.293	.323	.195	.458	.367
Past Experience	.150	.291	.276	.050	-.020	.107	.130	.235	1.000	.202	.362	.183	.048	.168	.155	.564	.380	.219	.282	.394
Information about Detergent	.002	.080	-.084	.113	.139	.175	.206	.022	.202	1.000	.187	-.215	-.071	.578	.406	.097	.065	-.251	-.054	-.015
Your Opinion on the Detergent	.152	.154	.175	.126	.225	.098	.201	.324	.362	.187	1.000	.303	.247	.263	.386	.256	.360	.286	.371	.326
Your Colleague's Opinion	.310	.191	.195	.231	.049	-.123	-.019	.202	.183	-.215	.303	1.000	.540	-.209	.030	.145	.215	.490	.372	.161
Supervisor's/Manager's Opinion	.067	.109	.165	.233	.213	-.201	-.050	.250	.048	-.071	.247	.540	1.000	-.097	-.038	.192	.240	.354	.284	.199
Your Safety	-.032	.083	-.069	.013	.265	.283	.353	.067	.168	.578	.263	-.209	-.097	1.000	.622	.006	-.026	-.256	-.196	-.005
Your Well Being	.032	-.019	-.018	-.034	.451	.341	.461	-.074	.155	.406	.386	.030	-.038	.622	1.000	.021	-.022	-.109	-.067	-.003
Why it was Purchased	.099	.237	.244	.141	-.011	-.090	.062	.293	.564	.097	.256	.145	.192	.006	.021	1.000	.571	.319	.450	.494
When it was Purchased	.176	.336	.226	.351	.108	-.382	-.157	.323	.380	.065	.360	.215	.240	-.026	-.022	.571	1.000	.397	.494	.377
Who Purchased it	.146	.225	.347	.267	-.004	-.171	-.168	.195	.219	-.251	.286	.490	.354	-.256	-.109	.319	.397	1.000	.618	.504
How Often it is Purchased	.042	.216	.249	.442	.058	-.059	.003	.458	.282	-.054	.371	.372	.284	-.196	-.067	.450	.494	.618	1.000	.639
From Whom it was Purchased	-.009	.163	.170	.247	-.025	.060	.009	.367	.394	-.015	.326	.161	.199	-.005	-.003	.494	.377	.504	.639	1.000

Source: Primary Data

4.6 Other Secondary variables

Though color was not a significant factor in determining choice of detergent, majority of the existing detergents are colored (91.3%). (Table 9). The most popular color among the current detergents was green (44.9%), it was followed by pink (23.2%), blue (8.7%) and red 4.3%. The least popular color was white (1.4%). This implies that for a company trying to enter into the market, green would be the best color to use. However, given a choice, majority of the respondents would prefer a detergent with a blue color (29%) or a colorless detergent (29%). The least preferred colors were red (1.4%) and yellow (1.4%). For new detergents, the manufacturers should use either blue color or no color. The manufacturers should avoid red and yellow colors when coming up with new detergents.

Table 9: Color of current detergent and color of preferred detergent

Color	Current		Preferred	
	Frequency	Percent	Frequency	Percent
Blue	6	8.7%	20	29.0%
Clear/Colorless	6	8.7%	20	29.0%
Green	31	44.9%	8	11.6%
N/a	1	1.4%	-	-
Pink	16	23.2%	11	15.9%
Red	3	4.3%	1	1.4%
Various	1	1.4%		
White	1	1.4%	3	4.3%
Yellow	4	5.8%	1	1.4%
Any	-	-	5	7.2%
Total	69	100%	69	100%

Source: Primary Data

Respondents were asked to indicate whether they perceived a relationship between certain product variables such as color and viscosity and the performance of the detergent using a dichotomous scale (“Yes” or “No”). A dichotomous scale is used to elicit a “Yes” or “No” answer. The respondents were also asked to rate the viscosity of their current and preferred detergent using a category scale of “low (flows easily)”, “medium” (does not flow easily) and “high” (does not flow easily, it is thick). According to the responses (Table 10), majority (85.5%) perceived no relationship between color and performance. On viscosity, majority of respondents (71%) perceived the existence of relationship between viscosity and performance.

Table 10: Relationship between color, viscosity and performance

	Color and performance		Viscosity and performance	
	Frequency	Percent	Frequency	Percent
Yes	10	14.5%	49	71%
No	59	85.5%	20	29%
Total	69	100%	69	100%

Source: Primary Data

Majority of the respondents (56.5%) indicated that their existing detergents are of medium viscosity (Table 11). The second most popular viscosity (34.8%) among respondents is low viscosity. Low number of respondents (8.7%) indicated that their current detergent is of high viscosity.

Given a choice, the majority (53.6%) would prefer a detergent with medium viscosity. Very few respondents (15.9%) would prefer a detergent with high viscosity. The balance of respondents (29%) would prefer a detergent with low viscosity. The preference for a detergent with medium viscosity could be due to the need to balance detergent dispensation and cost. The detergents are normally dispensed out of a detergent dispenser mounted on a wall. If the detergent has a very high viscosity, it is difficult to dispense and if the viscosity is too low, too much is dispensed and there is also risk of the detergent leaking out of the dispenser and in both cases, this leads to higher costs, thus the preference for a medium viscosity product.

Table 11: Viscosity of current and preferred detergent.

Viscosity	Current		Preferred	
	Frequency	Percentage	Frequency	Percentage
Low (Flows easily)	24	34.8%	20	29.0%
Medium (Does not flow easily)	39	56.5%	37	53.6%
High (does not flow easily, it is thick)	6	8.7%	11	15.9%
Any	-	-	1	1.4%
Total	69	100%	69	100%

Source: Primary Data

The respondents were asked for their opinion on the relationship between price, packaging and the manufacturer with the efficacy of the detergent using a Likert scale (1= “strongly disagree”, 2= “disagree”, 3= “do not agree or disagree”, 4= “agree”, 5= strongly agree”).

Majority of the respondents (42%) agreed that there was a relationship between the “price of the detergent” and its “efficacy” (Table 12). A minority of respondents (1.4%) strongly disagreed that there is any relationship between “price” and “efficacy” while a significant number (23.2%) strongly agreed. For the rest of the respondents, a significant number (21.7%) did not agree or disagree and a small number (11.6%) disagreed. This information is very important for the multinational companies who can use it in psychological pricing whereby they can price their detergents at slightly higher prices than their local competitors and the users would still buy them.

Most of the respondents (33.3%) disagreed that there was any relationship between “packaging” and “a detergent’s efficacy”. Very few respondents (5.8%) strongly agreed that there was a relationship between “packaging” and “efficacy”. Of the balance, there was mixed reaction with a significant number (27.5%) agreeing that there is a relationship between “packaging” and “efficacy”, a good number of respondents (21.7%) did not agree or disagree with there being a relationship between the two while a small number (11%) strongly disagreed. From these results, packaging is not a variable that most respondents perceive as influencing efficacy and is therefore not a competitive advantage. However the manufacturers should package their detergents bearing in mind the users needs in terms of aesthetic appeal, handling and storage.

Majority of respondents (52.2%) agreed that there is relationship between manufacturer and the detergent’s efficacy while a small number (4.3%) strongly disagreed that there is a relationship. A small number (15.9%), disagreed that there is a relationship between the two, while as another small number (14.5%) strongly agreed that there was a relationship. Another small number of respondents (13%) did not agree or disagree that there was a relationship between the two. This is information that the manufacturers especially the multinationals can use as a competitive advantage due to their heritage and goodwill with the customers. They should be use this perceived relation in developing innovative products that differentiate them from the competition and also in modifying current products that might be attack from local competitors by adding new features and benefits and the users are likely to use the new or modified products as they have trust in the manufacturers.

Table 12: Relationship between price, packaging, manufacturer and efficacy

	Price and Efficacy		Packaging and Efficacy		Manufacturer and Efficacy	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Strongly disagree	1	1.4%	8	11.6%	3	4.3%
Disagree	8	11.6%	23	33.3%	11	15.9%
Do agree or disagree	15	21.7%	15	21.7%	9	13.0%
Agree	29	42.0%	19	27.5%	36	52.2%
Strongly agree	16	23.2%	4	5.8%	10	14.5%
Total	69	100%	69	100%	69	100%

Source: Primary Data

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The study established the factors that influence the choice of hand washing detergents in the vegetable processing factories which were efficacy, smell, information about the detergent, safety and the well being of the user. These factors had a rating of five on the respondents' average index rating (table 6) meaning that they influenced the choice of the detergent by a "very great extent". Efficacy of the detergent was very important to the respondents and this is because it determines the level of cleaning and ability to kill microorganisms in the vegetable processing factories and therefore determines the quality of the processed vegetables and their marketability. The concern about smell is because in the vegetable processing industry, smell is not desired because if present, some of it is picked by the vegetables being processed and this will lead to rejection of the vegetables by the customers. The research also found that the respondents were very concerned about information about the detergent. This is because the information about the detergent helps the users determine its suitability and use in terms of the raw materials used, its effectiveness, how to use it, how to store and any precautions when handling and using it.

The concern about the efficacy, smell and information about the detergent is in line with the product attributes and quality. Quality is one of the marketer's major positioning tools. Quality stands for the ability of the product to perform its functions. From a marketing point of view, quality is measured in terms of a buyer's perception. The manufacturers of the detergents must therefore develop products that meet their customers quality needs and also clearly communicate about the product quality and attributes to the customers. In view of this, the detergent manufacturers should focus a lot on the identified factors when developing new detergents or when modifying the current ones so as to effectively meet the needs of their customers and capture or retain a good market share. The respondents were also very concerned about "their safety" and "their well being" when using the detergents. This is in line with Maslow's hierarchy of needs, where safety and security needs occupy the second level after physiological needs. Safety needs are concerned with not only with physical needs but also include order, stability, routine, familiarity, and control over one's life and environment (Schiffman and Kainuk, 2004). The manufacturers of the hand washing detergents should therefore manufacture products that meet the safety needs of the users.

Efficacy of the detergent, smell and information about the detergent which were found to influence the purchase decision to a very great extent are related in the sense that the information about the detergent provided by the manufacturers on the labels or on the product information sheets should indicate the type of detergent, the key ingredients, the effectiveness of the detergent in killing different micro-organisms and whether it has a smell or not. It is not therefore a surprise that the respondents perceived these factors as influencing their purchase decision to a very great extent. The other factors that were found to have influenced the purchase decision to a very great extent were the safety of the user and his or her well being. These two factors are closely related as they address the overall safety and security needs of the user in line with Maslow's theory on hierarchy of needs.

Some factors were found to have very little or no influence in the choice of the detergent. Among these were color of the detergent, name of the detergent, colleague's opinion, when the detergent was purchased, and who purchased it. These factors had a rating of three on the respondents average index rating except "who purchased the detergent" which had a rating of two. These are factors that the manufacturers should not spend a lot of resources on when developing new detergents or modifying current ones.

5.1.2 Conclusions

The research provides information on the factors that the owners of the vegetable processing factories should insist on being incorporated in hand washing detergents so that they meet their cleaning needs and also meet the psychological needs of their employees. By meeting their cleaning needs and also the psychological needs of their employees, they will be increasing the competitiveness of their vegetables in the international markets as they will be processing safe and better quality vegetables and their customer will view them positively as businesses that cater for the welfare and safety needs of their employees.

The manufacturers of the hand washing detergents should ensure that the key factors identified by the research such as efficacy of the detergent, smell, information about the detergent, safety and well being of the users are incorporated by the into their current and future products. By so doing, they will be meeting the needs of their customers more effectively and this can a

great opportunity for some of the manufacturers to differentiate themselves by meeting the identified factors more effectively than their competitors and thereby having a competitive advantage over the competitors. The research also provides information on the factors that the manufacturers of the hand washing should focus on more when developing new products or modifying existing ones.

For the researchers, this study provides more knowledge in the area of consumer behavior and motivation. It also provides an opportunity for further research. By carrying out more research on the factors identified as having very great influence on the purchase decision, more knowledge will be added in the field of consumer behavior and consumer motivation. The findings from this research also provide opportunities for other researchers who may be interested in this specific field to carry more research.

The research also provides information that the Government can use to develop a policy framework or modify any existing framework to regulate the manufacture and sale of hand washing detergents in the vegetable processing sector. The policy framework should help to harmonize the operations and needs of the different stakeholders in this industry to ensure that the industry is well regulated and also competitive in line with changing trends globally.

5.1.3 Policy recommendations

In line with these findings the different stakeholders should formulate policies to address the factors that were identified as having the greatest influence in the purchase decisions. The manufacturers of the hand washing detergents should come with a policy that makes sure that all the hand washing detergents manufactured meet an agreed level of efficacy, have no smell and that there is clear and adequate communication about the product's critical features and benefits such as efficacy, raw materials used, how to use it, how to store it and precautions to take when using the detergent. The communication can be done through product information sheets, material safety data sheets and also on the product labels.

The owners of the vegetable processing companies should come with a policy on the minimum standards that the hand washing detergents should meet if they are to be used in their factories.

The policy should address the issue of efficacy, smell, information to be provided by the hand washing detergents manufacturers and the safety and well being of the employees. The owners of the vegetable processing factories should in turn communicate to their customers how they are addressing the critical issues such as on efficacy of the detergents they are using, and no smell in the detergents they use and that they are taking good care of the safety and well being of their employees. They should use these as competitive tools both from a product assurance point of view and also from an ethical point of view as most businesses today are demanding that the welfare of employees must part and parcel of how a company manufactures its products.

The Government should come up with regulations and standards to control and regulate the manufacture and sale of hand washing detergent to address the safety and well being of the users. In coming up with the policies, the government should consider the factors that have been identified as important in influencing the purchase decision which are efficacy, smell, information about the detergent, the safety and well being of the user and include them in a policy frame work to guide and regulate the manufacturing, selling and using of hand washing detergents in the vegetable processing factories. This framework should take into consideration the three key stakeholders in the industry who are the manufacturers of the hand washing detergents, the owners of the vegetable processing factories and the employees who work in the vegetable processing factories and make sure that the interests of all the parties are taken care of and that the industry operates in harmony.

5.2 Limitations of the study

The study was constrained by time, financial resources, accessibility of respondents, cooperation by respondents and limited education background for some of the respondents. There was limited time to carry out the research among as many companies as possible and to interview more respondents. Financial constrains were experienced in terms of stationery, printing, recruitment of research assistants, and traveling expenses. There were limitations in accessing respondents in some factories where the management was not cooperative and did not want their employees to be interviewed and in some factories some respondents declined to fill in the questionnaire. Some of the respondents had low education background making it difficult for them to clearly understand some of the questions.

5.3 Recommendations for further research

This research was restricted to the industrial market segment in the vegetable processing sub-sector. The researcher therefore recommends further research in other food processing industries to validate these findings. In addition, similar research should also be carried out in the consumer segment to find out whether the identified factors also influence the purchase choice of hand washing detergents in this segment.

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APPENDICES

APPENDIX 1: FRUITS AND VEGETABLES EXPORTERS IN KENYA

1. Agrifresh Kenya Ltd
2. Avenue Fresh Produce Ltd
3. Dominion Vegfruits Ltd
4. East African Growers Ltd
5. Everest Enterprises Ltd
6. Fian Green Kenya Ltd
7. Frigoken Ltd
8. Global Fresh Ltd
9. Greenlands Agro Producers Ltd
10. Hillside Green Growers & Exporters Ltd
11. Homegrown Kenya Ltd
12. Horticultural Farmers & Exporters Co Ltd
13. Indu Farm EPZ Ltd
14. Justel Fruits Ltd
15. Kakuzi Ltd
16. Kenya Fresh Exporters Ltd
17. Kenya Horticultural Exporters Ltd
18. Kandia Fresh Produce Suppliers Ltd
19. Makindu Growers & Packers Ltd
20. Mboga Tuu Ltd
21. Migotyo Plantations Ltd
22. Njambiflora Ltd
23. Nicola Farms Ltd
24. Sacco Fresh Ltd
25. Samawati Fresh Produce (K) Ltd
26. Sian Exports Kenya Ltd
27. Sunripe (1976) Ltd
28. Super Veg Ltd
29. Tropicalfresh Enterprises Ltd
30. Tropical Horticultural Products Ltd
31. Value Pak Foods Ltd
32. Wamu Investments
33. Waqash Enterprises Ltd
34. Wilham Kenya Ltd
35. Woni Veg-Fru Importers And Exporters Ltd
36. Manna Farm Ltd
37. AAA Growers Ltd
38. Kenya Nut Ltd

APPENDIX 2: SPECIMEN LETTER TO RESPONDENTS

Dear Respondent

Muchoki Mwangi
C/O University of Nairobi
Faculty Of Commerce
Department Of Business Administration
P O Box 30191
Nairobi

RE: Request For Research Data

I am a post graduate student in the faculty of commerce at the University Of Nairobi. I am carrying out a research on “The Factors That Influence The Purchase Of Hand Washing Detergents In Vegetable Processing Factories In Kenya” as a partial fulfillment of my Masters of Administration (MBA) degree.

You as a respondent has been selected to form part of this study. Please assist me in completing the attached questionnaire to the best of your knowledge.

The information given will be used for academic purposes and as in insight to detergent manufacturers.

As a respondent of this study, you are free to access the findings of the study and a copy will be availed to you upon a written request.

Any information given will be treated with utmost confidentiality.

Thank you very much for participating in the research by answering the questions in the questionnaire.

Yours faithfully

Muchoki Mwangi
MBA Student

Dr Raymond Musyoka
Lecturer, Department of Business Administration

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APPENDIX 3: QUESTIONNAIRE FOR COLLECTING DATA

COMPANY BIODATA

1. Name of company(Optional)
2. The company is owned by:
(a) A multinational group () (b) Asian(s) ()
(c) Indigenous Kenyan(s) () (d) Other (specify).....
3. Number of years in operation
(a) 1 – 5 () (b) 6 – 10 ()
(c) 11 – 15 () (d) 16 and above ()
4. Type of customers
(a) Locally based () (b) Abroad based ()
(c) Both local and export ()

PEOPLE BIODATA

1. Name.....(Optional)
2. Title.....
3. Department.....
4. Gender (a) Male () (b) Female ()
5. Age in years
(a) Below 20 () (b) 20 to 24 ()
(c) 25 – 29 () (d) 30 – 34 ()
(e) Over 35 ()
6. Level of education:
(a) Below “O” level () (b) “O” level ()
(c) “A” level () (d) University ()
(e) Other, specify.....

PRODUCT BIODATA

1. To what extent does each of the following aspects of a hand washing detergent determine your choice of the detergent?

Use a 5 point scale where:

1 = Not at all 2 = Very little extent 3 = Little extent

4 = Great extent 5 = Very great extent

Variable	1	2	3	4	5
• Viscosity	()	()	()	()	()
• Packaging	()	()	()	()	()
• Color	()	()	()	()	()
• Brand name of the detergent	()	()	()	()	()
• Price	()	()	()	()	()
• Efficacy	()	()	()	()	()
• Smell	()	()	()	()	()
• Manufacturer	()	()	()	()	()
• Past experience	()	()	()	()	()
• Information about the detergent	()	()	()	()	()
• Your opinion on the detergent	()	()	()	()	()
• Your colleagues' opinion	()	()	()	()	()
• Supervisor's/Manager's opinion	()	()	()	()	()
• Your safety	()	()	()	()	()
• Your well being	()	()	()	()	()
• Why it was purchased	()	()	()	()	()
• When it was purchased	()	()	()	()	()
• Who purchased it	()	()	()	()	()
• How often it is purchased	()	()	()	()	()
• From whom it was purchased	()	()	()	()	()

2. What is the colour of your current hand washing detergent?
3. Given a choice, what would be your preferred colour of the hand washing detergent:
- | | | | |
|------------|-----|----------------------|-----|
| (a) Red | () | (b) Orange | () |
| (c) Yellow | () | (d) Green | () |
| (e) Blue | () | (f) Pink | () |
| (g) White | () | (h) Clear/Colourless | () |
- (i) Other (specify)
4. Do you think there is a relationship between the colour of the hand washing detergent and its performance? (a) Yes () (b) No ()
5. If yes, which colour do you think gives a detergent best performance?
- | | | | |
|------------|-----|----------------------|-----|
| (a) Red | () | (b) Orange | () |
| (c) Yellow | () | (d) Green | () |
| (e) Blue | () | (f) Pink | () |
| (g) White | () | (h) Clear/Colourless | () |
- (i) Other (Specify)
6. What is the viscosity of your current hand washing detergent?
- | | |
|--|-----|
| (1) Low (flows easily) | () |
| (2) Medium (does not flow easily) | () |
| (3) High (does not flow easily, it is thick) | () |
7. Given a choice, what would be your preferred viscosity of the hand washing detergent:
- | | |
|--|-----|
| (a) Low (flows easily) | () |
| (b) Medium (does not flow easily) | () |
| (c) High (does not flow easily, it is thick) | () |
- (i) Other (specify)
8. Do you think there is a relationship between the viscosity of the hand washing detergent and its performance? (a) Yes () (b) No ()

9. If yes, which viscosity do you think gives a detergent best performance?
- (a) Low (flows easily) ()
- (b) Medium (does not flow easily) ()
- (c) High (does not flow easily, it is thick) ()
- (d) Other (Specify)

10. Using the table below, indicate the extent to which you agree with the stated relationships where:

- 1 = Strongly disagree 2 = Disagree
- 3 = Do not agree or disagree 4 = Agree 5 = Strongly agree

Relationships	1	2	3	4	5
• Do you think there is a relationship between the price of a hand washing detergent and its efficacy?	()	()	()	()	()
• Do you think there is a relationship between the packaging of a hand washing detergent and its efficacy?	()	()	()	()	()
• Do you think there is a relationship between the manufacturer of a hand washing detergent and its efficacy?	()	()	()	()	()