

**THE EFFECTIVENESS OF BRAND PERCEIVED QUALITY ON THE CHOICE OF  
PRESCRIPTION DRUGS BY DOCTORS AT KENYATTA NATIONAL HOSPITAL**

**BY**

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**MARKETING RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT FOR  
THE AWARD OF A MASTER IN BUSINESS ADMINISTRATION (MBA) OF THE  
SCHOOL OF BUSINESS UNIVERSITY OF NAIROBI**


**OCTOBER 2010**

**DECLARATION**

I declare that this research proposal is my original work and to the best of my knowledge has not been presented at any other university for a degree award, and all the references therein contained are duly referenced.


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This research project has been submitted with our approval as the University Supervisors.

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## **ACKNOWLEDGEMENT**

I would like to thank Almighty God for his guidance and providence which enabled me to undertake this project that was very involving and for providing the time and resources.

I wish to express my sincere appreciation to my family for their understanding and support during the project.

I would also like to express my sincere thanks to my supervisors **T.M Mutugu** for his guidance and their patience in reading the drafts and for agreeing to supervise this research project.

Lastly I wish to extend my appreciations and thanks to all my lecturers for their support and encouragement during the project.

## **DEDICATION**

I dedicate this research project to my entire family members

## ABSTRACT

The objective of this study was to determine the effectiveness of brand perceived quality on the choice of prescription drugs by doctors. The study was done at Kenyatta national hospital where the data was collected from doctors from different departments in the hospital. Stratified sampling was used to as a sampling technique where the data was collected from the respondents using questionnaires. The questionnaire contained both closed and open -ended questions.

The study found out that a majority of the respondents were in lower management comprising, majority of the respondents rated perceived quality as being important as a requirement on the choice of drugs. the various factors of brand perceived quality on choice of drugs considered very effective were country of origin, price, inclusion in hospital formulary, launch, comments from peers, wide availability, number of years in the market, experience with other products from the same firm, tender participation, severity of conditions for which the drug is used and presentations made by medical representatives. Other factors that were shown to affect brand perceived quality on choice of prescription drugs were direct detailing to the health care providers, performing a major launch of drug, marketing to the key account managers (key decision makers in hospitals, institutions, therapeutic committees, etc), direct physician contact with pharmaceutical sales representatives and designing an optimal sales force to sell a particular portfolio of drugs to the target customers.

The study recommends that there is need for drug inspectorate and promotional strategies on safeguarding the perceived quality of drugs. This can be used to counter the adverse effects of unethical promotional activities in the pharmacy industry and promote the concept of perceived quality

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **Background of the Study**

##### **1.1.1 Concept of Perceived quality**

Perceived quality can be defined as the customer's perception of the overall quality or superiority of a product or service with respect to its intended purpose, relative to alternative, Zel Thaml (1988). Perceived quality is first, a perception of consumers .Perceived quality differs from several related concepts such as actual or objective quality which refer to the extent to which the product or service delivers superior service; product based quality which refers to the nature and quantity of ingredients features or included, and manufacturing quality which refers to conformation to specifications, the "zero defects" goal. Perceived quality cannot necessarily be objectively determined, in part because it is a perception and also because judgements about what is important to customers is involved. As Jack F. Welch, chairman and C.E.O of General Electrics said, "the customer rates us better or worse than somebody else. It is not very scientific but it is disastrous if you score low" (Welch, 1981)

Perceived quality can therefore be defined relative to an intended purpose and set of alternatives (Aaker, 2005). The fact that an outlet does not deliver the same level of personal service, quality of merchandise and same store ambience does not mean that it will have a lower perceived quality – it may be judged by a different set of criteria perhaps ease of packing, courtesy of staff, waiting time and whether the desired item is in stock (Schiffman and Kanuk, 1997). Perceived quality also differs from satisfaction of the said customer. A customer can be satisfied due to his/her low expectation about performance level. Higher perceived quality is also not consistent with law expectation. Perceived quality also differs from attitude. A positive attitude could be generated because of a product of inferior quality is inexpensive. Conversely, a person could have a negative attitude towards a high quality product that is overprice. Extrinsic cues on the other hand are product related but not part of the physical product itself. They are by

definition outside the product e.g. price, brand name, level of advertising, etc. Researchers have identified key lower level attributes used by consumers to infer quality in only a few product categories. This lower level cues include price (Olson 1977, Olson and Jacoby, 1972), Suds level for detergents, size for stereo speakers (Olshavky, 1985), odour for bleach and stockings (Laird, 1932) and produce freshness for supermarkets (Bonner and Nelson, 1985).

### **1.1.2 Link between Brand Perceived Quality and The Choice Of Prescription Drugs**

Consumers judge the quality of a product or service on the basis of informational cues that they associate with the product. These informational cues have been dichotomized into intrinsic and extrinsic cues (Olson 1977; Olson and Jacoby, 1972). Intrinsic cues involve the physical component of the product (e.g. flavour, colour, texture, etc). In the case of colour for example a consumer products company developed a “better” window cleaner which was essentially colourless. However, in use taste this “improved” product did not do well against the established until the new product was tinted blue. Thus, it is worthy to note that specific or intrinsic attributes / cues differ widely across products, as do the attributes consumers use to infer quality.

Perceived quality is a brand association that is elevated to the status of a brand asset for several reasons (Aaker, 1996). Among the brand associations, only perceived quality has been shown to drive financial performance. Perceived quality is often a major (if not the principal) strategic thrust of a business. Perceived quality is linked to and often drives other aspects of how a brand is perceived.

Perceived quality is a major driver of customer satisfaction which in turn has a major impact on return on investments. Perceived quality is often the key positioning dimension for corporate brands such as Sony and Philips. Perceived quality defines the competitive milieu for many brands example Ford. Perceived quality position is often the defining points of differentiation between price brands and prestige or premium brands. It cannot be easily copied by competitors' example Sony. Perceived quality is usually at the heart of what customers are buying so it reflects the measure of goodness that spread over all the other elements of brand. Perceptions

about a brand's functional benefits are closely related to perceived quality.

Achieving perceptions of quality is therefore difficult unless the quality claim has substance. Generating high quality requires an understanding of what quality means to the customer segments, as well as a supportive culture and quality improvement process that will enable the organisation to deliver quality products and services. Creating a quality product or service however, is only a partial success; perceptions must be created as well. Perceived quality may differ from actual quality for various reasons. First consumers may be overly influenced by a previous image of poor quality; hence, they may not believe the new claims or may not be willing to take time to verify them. Secondly, a firm may be achieving quality on a dimension that the consumer does not consider important. Therefore there is a need to ensure that quality occurs in areas that will resonate with the customer. Thirdly, consumers rarely have all the information necessary to make a rational and objective judgement on quality. Even when they do, they may lack the time and the motivation to process it. Therefore, they tend to rely on one or two cues that they associate with quality. Fourth, customers may not know how best to judge, that they may be looking at the wrong cues. Quality requires high quality parties such as stockists and suppliers. These too have an impact on quality perception.

### **1.1.3 An overview of Kenyatta National Hospital**

According to KNH annual report 2006/2007, Kenyatta National Hospital (KNH) is the oldest and the largest national teaching and referral hospital in Kenya. It has been in existence since 1901. The report further states that the main mandate of the hospital is to provide specialised quality health care and facilitate training for post-graduate and undergraduate college of health sciences of University of Nairobi as well as various courses for students from Kenya Medical Training College (KMTC) among others. As a referral hospital, KNH offers specialised surgical services including open-heart surgery, plastic surgery, kidney transplant and neurosurgery among others. It is the only public health institution offering renal dialysis and radiotherapy services in Kenya. KNH has fifty wards, twenty outpatient clinics, twenty-four theatres and an accident and emergency department (A&E).

According to KNH website, ([www.knh.go.ke](http://www.knh.go.ke)) the hospital inpatient capacity is One Thousand and Eight hundred beds, Two Hundred and Twenty Five of which are for the private wing. Over three hundred patients visit accident and emergency department daily including victims of mass accidents. The services offered are highly subsidised to enable the large number of citizens who are financially challenged to access them. Services at the private wing are offered at very competitive rates and of high quality. The Private Doctors Plaza is located within the hospital and has sixty suites where clients may access various consultant specialities. KNH attracts patients from the Great Lakes Countries and Horn of Africa including Burundi, Tanzania, Rwanda, Uganda, Ethiopia, Somalia and Namibia. During the year, 2006 / 2007 the patient numbers increased from Forty Three Thousand to Forty Nine Thousand generating revenue close to Four Billion Shillings. KNH board as a state corporation was incorporated under the legal notice No.109 of 1987. Since then the hospital operates under a Chief Executive Officer reporting to the Board of Management.

In 2005, the hospital developed its first five-year strategic plan; the goal was to improve the quality of specialised healthcare, training of health personnel and research as defined in the “Norms and Standards of health service delivery in Kenya”.(KNH Strategic Plan 2005/6). Since then, KNH has introduced performance contract which are reviewed annually. The hospital boasts of a staff strength of Four Thousand Six Hundred against an approved establishment of over Six Thousand (KNH annual report 2006 / 2007). The hospital has Two Hundred Doctors and One Thousand Seven Hundred Nurses against an approved establishment of three Hundred Doctors and Two Thousand Nurses, reflecting a shortfall of 35% and 13% respectively. This has led to overstretching of existing staff.

In 2007, the hospital launched a service charter aimed at promoting partnership between staff of the hospital and the patients (KNH Service Charter, 2007). Through this charter, KNH promises to offer the best services possible and better treatment of clients in keeping with the institution’s philosophy “a healthy nation is a prosperous nation.” The charter further states that the vision statement of KNH is “To be a regional centre of excellence in the provision of innovative and specialized healthcare.” The charter also gives the mission statement of KNH as “To provide specialized quality healthcare, to facilitate medical training, research and participate in national

health planning policy.”

#### **1.1.4 Kenyan Pharmaceuticals**

The health system in Kenya is organized and implemented through a network of facilities organised in a pyramidal pattern. The network starts from dispensaries and health clinics, health centres, sub-district hospitals, district hospitals, provincial general hospitals and at the apex there is the Kenyatta National Hospital, and more recently the Moi Teaching and Referral Hospital, Eldoret.

The Ministry of Health (MoH) is the major financier and provider of health care services in Kenya. Out of all the health facilities in the country, the MoH controls and runs about 52% while the private sector, the mission organizations and the Ministry of Local government runs the remaining 48%. The public sector controls about 79% of the health centres, 92% of the sub-health centres, and 60% of the dispensaries. The NGO sector is dominant in health clinics, maternity and nursing homes controlling 94% of the total while also controlling 86% of the medical centres in the country. In urban rural distribution, the health sector is faced with inequalities. 70% of urban population has access to health facilities within 4 km. as opposed to 30% of the rural population.

Kenya has a well-developed pharmaceutical industry, manufacturing a wide range of products. The industry is dominated by foreign firms which were established to tap the Kenyan and regional markets. Exports of pharmaceutical products increased rapidly after 1982 due to the greater accessibility of the Eastern and Southern African market. By the late 1980s, exports to neighbouring countries accounted for more than 51) per cent of Kenyan pharmaceutical exports, with Tanzania and Uganda alone taking 40 per cent. The pharmaceutical industry consists of three segments namely the manufacturers, distributors and retailers. All these play a major role in supporting the country's health sector, which is estimated to have about 4,557 health facilities countrywide. Kenya is currently the largest producer of pharmaceutical products in the Common Market for Eastern and Southern Africa (COMESA) region, supplying about 50% of the regions'



market. Out of the region's estimated of 50 recognised pharmaceutical manufacturers; approximately 30 are based in Kenya. It is approximated that about 9,000 pharmaceutical products have been registered for sale in Kenya. These are categorized according to particular levels of outlet as Over the Counter (OTC), or prescription only.

Kenyan pharmaceutical exports faced stiff competition from European traders and manufacturers who had long-established contacts in the regional market. Some of the Kenyan firms, however, have been able to penetrate markets in Eastern Europe, the Middle East and the Far East. The range of products manufactured by Kenyan firms includes capsules, injections, creams, syrups, suspensions, suppositories, antibiotics, analgesics, antiacids, diuretics, haemopoitrics, hormones, hypnotics, sedatives, tranquillizers, vitamins, anti-malarials, anti-amoebics, anti-spasmodics and chemotherapeutics. However, the country still imports large amounts of these drugs. Only about 30 per cent of total annual requirements is produced locally. Capacity utilization varied widely within individual factories for particular products as well as between firms. Foreign firms' capacity utilization was about 80 per cent and 65 per cent for locally owned firms.

The Ministry of Health (MoH) has the responsibility of overseeing both the pharmacies and the trade in pharmaceutical products. This is done through the Pharmacy and Poisons Board, as provided for by Chapters 244 (The Pharmacy and Poisons Act) and 245 (The Dangerous Drugs Act) of the Laws of Kenya. Product registration is done after a thorough evaluation of efficacy, safety and quality. As part of a national drug policy, the MoH has adopted essential drugs list, using World Health Organization (WHO) guidelines. Kenya, like all other developing nations adopted the 'Alma Alta' declaration of 'Health for all by the Year 2000', which sets various policy measures to achieve this goal, including the establishment of a national drug policy.

The market for pharmaceutical products in Kenya is estimated at KShs 8 billion per annum. The government, through Kenya Medical Supplies Agency (KEMSA) is the largest purchaser of drugs manufactured both locally and imported, in the country. It buys about 30% of the drugs in the Kenyan market through an open-tender system and distributes them to government medical institutions. There are about 700 registered wholesale and 1,300 retail dealers in Kenya,

manned by registered pharmacists and pharmaceutical technologists. These pharmacies are accorded a 25% mark-up on retail drugs. Anti-infective products (chiefly antibiotics, antimalarials, and sulfonamides), analgesics, antipyretics, bronchial relaxants and cytotoxins account for the bulk of government and private sector purchases of medicines in the Country. There are currently 23 pharmaceutical companies shown in the table below:

## **1.2 Statement of the Problem**

Different bundle of values which consumers consider before their purchase are brought about by the concept of perceived quality. Such cues provide the basis for perceptions of products and service quality. The colour of the product made the difference. Intrinsic attributes cannot be changed without altering the nature of the product itself and are consumed, as the product is consumed (Olson 1977; Olson and Jacoby, 1972). Successful consumer marketing does not begin with a unique product or a great idea. Marketing begins with consumers who want or need the product and have the resources to buy it. Moreover, these consumers do not buy just a product; they buy a total bundle of values known as a market offering. That market offering is composed of a mix of elements such as a product, product services, transaction services, brand, package, price, credit terms, price discounts, advertising, personal sales assistance, store or business location availability, inventory assortment and transportation services. Mixing and matching these various elements of the market offering into an appropriate integrated and unified whole becomes the primary challenge for the marketing executive in developing a successful competitive position in the European consumer marketplace today.

In recent years the Pharmaceuticals industry has witnessed increased emphasis on the cultivation of a culture which fosters the effective nurturing the quality of their drugs. This growing attention stems from the belief that quality drugs provide a wide range of an important source of competitive advantage in these drugs product sector which is characterized by high levels of interaction between Doctors and their brand perceived quality of drugs. Moreover, marketing academics and managers proclaim that a strong brand perceived quality product cultivates a culture which leads to customer retention, which in turn, yields higher profitability (Hooley and Saunders, 1993). Perceived quality concept has been recognized as a vital tool to confront the

competitive pressure in the pharmaceutical environment and also as a tool of improving Doctors perception on their drugs brands prescription to the patients.

Although the brand perceived quality concept and its effectiveness has received considerable attention and acceptance by both marketing scholars and practitioners (Hooley et al, 2001; Hooley and Saunders, 1993; Kalra and Goodstein, 2002), there is limited empirical research of effectiveness within the domain of brand perceived quality on the choice of drugs and the doctors preference, more so in the local context. The study therefore seeks to fill the knowledge gap by investigating the effectiveness of brand perceived quality on the choice of prescription drugs by KNH doctors.

### **1.3 Objectives of the Study**

The objective of this study was to determine the effectiveness of brand perceived quality on choice of prescription drugs by KNH Doctors.

### **1.4 Importance of the Study**

**Managers:** This study is important to the management of pharmaceutical in Kenya and other similar organizations in Kenya by acting as a marketing reference point for application of brand perceived quality strategies needed to be put in place, both in the present and future

**Government:** The Governments of Kenya will also find this study an invaluable source of information by identifying the factors that play a major role in the practice of application of brand perceived quality in the industry in Kenya.

Finally, the researcher will benefit from the study as it will add on to the growing body knowledge in wide marketing practices in Kenya. This will act as a source of reference for studies to be done on brand perceived quality.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 The Concept of Perceived Quality

Lane Keller posted eight specific characteristics of strong brands, a deep and visceral understanding of what their brand means to the consumer, allowing the custodians of that brand to market the appropriate products and market products appropriately, properly positioning brands. As important as any points of difference one creates to individualise a brand, are the points of parity. Points of difference create a strong, favourable and/or unique brand association.

The concept of customer-based brand equity is built on the differential effects that the consumer brand knowledge (thoughts, feelings, perceptions) has on the consumer's response to brand marketing activity. Determinants of customer-based brand equity are consumer awareness of, and familiarity with, the brand, and that they hold some strong, favourable and unique brand associations in their memory. A product or service with positive brand equity will enjoy certain benefits, including greater brand loyalty and being less vulnerable to competitive marketing actions; commanding larger margins and more inelastic responses to price increases and elastic responses to price decreases; receive greater trade co-operation and support; increase marketing communication effectiveness; yield licensing opportunities; and support brand extensions, a massive issue considering that 90% of new products are line extensions. Points of parity – issues on which the brand competes with its competitors – are just as necessary.

There are two kinds of points of parity: the first is Category or Necessary types of parity (such as all banks offering ATM's); the second is Competitive points of parity, which involves negating the competitors' point of difference whilst creating one's own. Often the point of difference is established, it's the point of parity that needs to be strengthened. Providing superior delivery of desired benefits. This relates to new brands that have found the white space in the market that consumers are not getting and then relentlessly delivering on that. Maintaining innovation and relevance for mature brands. Establishing credulity and creating appropriate brand personality

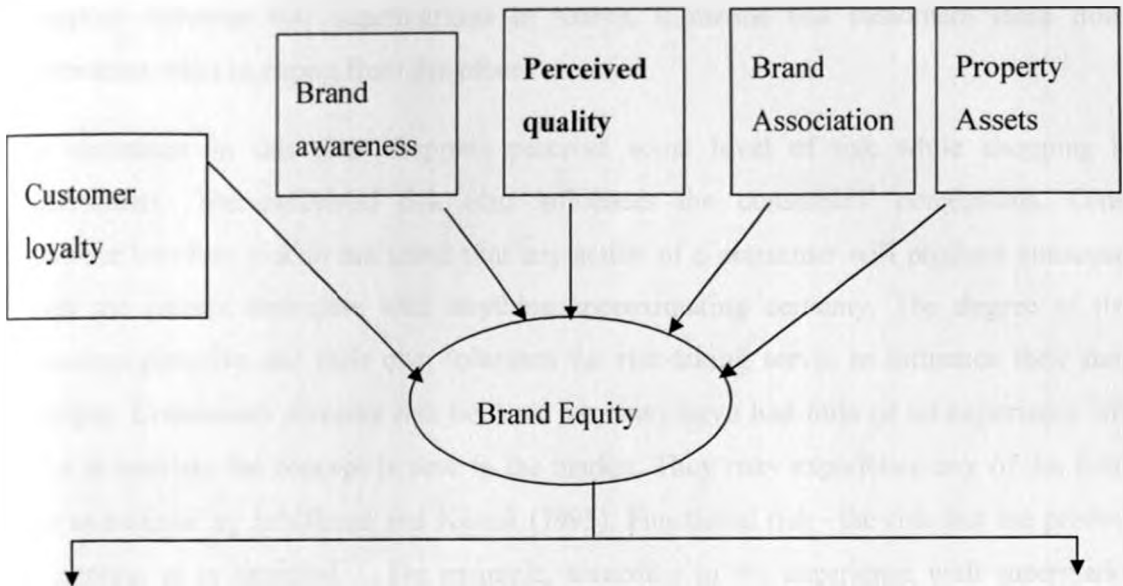
and imagery. There are three key dimensions to credibility: expertise, trustworthiness and likeability. Lane Keller believes that few brands excel in all three areas, but those that do are very powerful. Communicating with a consistent voice at one point in time and over time. Employing a full range of complementary brand elements and supporting marketing activities, all of which ought to be integrated to achieve the best blend. But a brand is not just a name, it's also a logo, a symbol, packaging, and slogan. Often under-utilised, a slogan is a handle to your brand that synthesises the brand positioning into a short phrase, such as "Just Do It" (Nike), "It's Everywhere You Want To Be" (Visa), and "The Power to Be Your Best" (Apple).

Strategically design and implement a brand hierarchy, as there are normally multiple brands associated with any one product. The two main basic principles here are those of relevance and differentiation. The principles of relevance argue that equity is created at the highest hierarchical level possible. Differentiation says that any level down, differentiation must be sharply defined in order for the consumer to understand the differences between the various products. In short, the key to portfolio is to maximise coverage but minimise overlap.

Tomorrow's branding necessities involve blending strategically top-down and tactically bottom-up brand management; living the brand charter (internal branding and directional documentation, delivering on the promise); leveraging brand partnerships (co-branding, with both services and products); integrating brand marketing (using diverse marketing vehicles whilst retaining brand consistency and synergy); and capturing brand value (return on brand equity, what the brand is worth).

Bloemer and Ruyter (1998) suggested that store loyalty resulted from a consumer committed to the store through an explicit and extensive decision-making process. Customer loyalty is frequently operated as a conscious evaluation of the price/quality ratio or the willingness to pay a premium price, or alternatively price indifference (Raju, Srinivasan and Lal, 1990; Zeithaml, Berry and Parasuraman, 1996). Supphellen and Nysveen (2001) suggested that corporate brand loyalty affected online shoppers' intentions to revisit the Web site.

## Constructs of Brand Equity



Provides value to customers by

- Interpretation / processing of information
- Confidence in the purchase decision
- Use satisfaction

Provides value to the firm by enhancing

- Efficiency and effectiveness of marketing progress
- Enhanced brand loyalty
- Higher price and margins or ROI
- Brand extensions
- Trade leverage
- Competitive advantage

**Adopted from Saxena (2005) Marketing Management page 39**

Perception affects behaviour. People tend to develop attitudes towards what they have perceived, this is normally based on what they are familiar with. These attitudes are the perceptual outcomes and they influence the perceiver's behaviour and how he or she will perceive things at the present or in the future. Perceived quality is one of these attitudes developed. Consumers often judge the quality of a service on the basis of a variety of information cues, which they associate with the service. Kibera and Waruingi (1998), define perceived quality as the customers' perception of the overall quality or superiority of a product or service with respect to its intended purpose relative to alternatives available. Therefore perceived quality is the assessment of customers' perception of an outlet/store on the basis of what they think constitutes a quality supermarket. Their perception is widely shaped comparatively by what they

have seen from other supermarkets. It is for this reason that this study seek to compare service perception between two supermarkets in Kenya, it means that customers learn from one supermarket what to expect from the other.

The customers in this case shoppers perceive some level of risk while shopping in the supermarkets. The perceived risk also influences the consumers' perceptions. Consumer behaviour involves risk in the sense that any action of a consumer will produce consequences, which she cannot anticipate with anything approximating certainty. The degree of risk the consumers perceive and their own tolerance for risk-taking serves to influence their shopping strategies. Consumers perceive risk because they may have had little or no experience with the outlet or because the concept is new in the market. They may experience any of the following risks as outlined by Schiffman and Kanuk (1995): Functional risk - the risk that the product will not perform as is expected. . For example, according to my experience with supermarkets in Kenya, a customer may risk buying repackaged expired products. Physical risk is a risk to self and others that the product may pose for example it might cause harm in this case. Financial risk is the risk that the product will not be worth its cost, for example a product maybe substandard or overpriced. Social risk is a risk that a poor outlet choice will result in embarrassment before others for example an affluent consumer may not want to be associated with a down market supermarket called Ukwala or Jack & Jill which may not have the right connotation for an up-market target. Psychological risk on the other hand is the risk that a poor outlet choice will bruise the consumer's ego, For example embarrass him or her in public or lower his/her self-esteem.

Cronin and Taylor (1992) examined the causal relationships among service quality, customer satisfaction, and purchase intention. Each variable was measured by one item. There were 660 usable questionnaires randomly collected from customers of four types of businesses in the south-eastern United States: banking, pest control, dry cleaning, and fast food. The results of correlation analysis have suggested that (1) service quality was an antecedent of consumer satisfaction, (2) service quality had less effect on purchase intentions than did consumer satisfaction, and (3) consumer satisfaction had a significant effect on purchase intentions.

Dabholkar, et al (2000) also found that customer satisfaction strongly mediated the effect of

service quality on behavioural intentions. The data used in their study were systematically randomly collected from 397 churches. A test of discriminant validity revealed that the construct of service quality was different from the construct of customer satisfaction. The result of regression analysis in structural equations modelling supported their proposition that customer satisfaction had a stronger effect on behavioural intentions than service quality did (Dabholkar et al., 2000).

Service quality literature indicated that perceptions of high service quality and high service satisfaction resulted in a very high level of purchase intentions (Boulding, Kalra, Staelin, and Zeithaml, 1993. Coner and Gungor (2002) claimed that customer loyalty was affected by product quality, service quality, and retailer image. They also suggested "quality [of product and service] is directly related to customer satisfaction and lead [s] to the loyalty of the customer" (Coner and Gungor, 2002, p. 195). Customer satisfaction literature showed that the relationship between customer satisfaction and customer loyalty depended on the type of satisfaction. The positive impact of manifest satisfaction on customer loyalty was stronger than that of latent satisfaction on customer loyalty (Bloemer and Kasper, 1995; Bloemer and Ruyter, 1998).

Based on empirical findings in service quality and satisfaction literature, service quality is one of the antecedents of satisfaction (Anderson and Sullivan, 1993; Cronin and Taylor, 1992, 1994; Reidenbach and Sandifer-Smallwood, 1990; Spreng and Mackoy, 1996; Woodside, Frey, and Daly, 1989), and loyalty is one of the consequences of satisfaction (Coner and Gungor, 2002; Cronin and Taylor, 1992, 1994; Dabholkar, Shepherd and Thorpe, 2000). Luarn and Lin (2004) tested their hypothesized customer loyalty model and found that customer satisfaction, perceived value, and customer loyalty were different constructs. Their findings indicated that not only customer satisfaction and perceived value directly affected customer loyalty, but also indirectly affected customer loyalty through commitment.

Service recovery can be regarded as a passive strategy for the improvement of customer satisfaction. Service recovery refers to the actions taken by a firm in response to a service failure (Zeithaml and Bitner, 2003). Service failure often occurs when the customer's perceived



service quality falls below customer expectations. For example, delivery and Web site design problems are two major types of service failure in online retailing (Holloway and Beatty, 2003). Such failures may cause significant costs to the firm, such as lost customers and negative word of mouth (Bitner, Brown and Meuter, 2000).

Literature has addressed the importance of service recovery. According to Hart, Heskett, and Sasser (1990), firms learn from experiences of service recovery when they may not be able to prevent service failure. Berry and Parasuraman (1992) believed that firms should not regard service failure as a problem but as an opportunity to create satisfied customers. Hence, recovery strategies have a dramatic impact on a firm's revenue and profitability (Tax and Brown, 1998). Service recovery literature has shown that resolving customer problems has a strong impact on customer satisfaction and loyalty (Miller, Craighead, and Karwan, 2000; Smith and Bolton, 2002). Swanson and Kelley (2001) also found that customer behavioural intentions are more favourable when customers believe that firms consistently implement service recovery when failures occur. Furthermore, Robbins and Miller (2004) found that well-handled service recovery strongly affects brand perception quality of products.

In conclusion, says Lane Keller, branding is not rocket science but the marketplace is an incredibly complex place, so the key is brand equity, which helps to focus marketing efforts, and winning businesses in the 21<sup>st</sup> century will be those that successfully build, measure, and manage global brand equity. Marketers must do what the strong global brands do, and smart marketers will use every tool at their disposal and devise ones that are not yet available in their relentless pursuit of achieving brand pre-eminence.

The functional dimension of the service process, also described as “process quality” dictates how the service and its concurrent production and consumption process are received and experienced by customers (Dhabolkar et al., 1996; Grönroos, 2000; Morgan and Piercy, 1992). Unlike the technical dimension, which can be objectively evaluated, the functional dimension is intangible and subjectively determined by customers (Grönroos, 2000). Both dimensions of the service product influence customers' perception of value. In earlier studies, Parasuraman et al.

(1985) and Suprenant and Solomon (1987) suggest that friendliness, courtesy and personalised service are components of the functional dimension that contribute to and customer satisfaction and loyalty

### **2.1.1 Supplier Brand**

Image of brand or supplier is one of the most complex factors. It affects loyalty at least in two ways. Firstly, customer may use his preferences to present his own image. That may occur both in conscious and subconscious level. According to the Belk's theory of extended self, people define themselves by the possessions they have, manage or create. (Belk 1988) Aaker has shown how consumers prefer brands with personality traits that are congruent with the personality traits that constitute their (malleable) selfschemas (Aaker 1999) Kim, Han and Park have researched the link between brand personality and loyalty. They did get positive support to hypothesis that the attractiveness of the brand personality indirectly affects brand loyalty (Kim et al. 2001).

Tidwell and Horgan (1993) have showed that people use products to enhance self-image. Secondly, according to social identity theory, people tend to classify themselves into different social categories. That leads to evaluation of objectives and values in various groups and organisations in comparison with the customer's own values and objectives. They prefer partners who share similar objectives and values (Ashforth et al. 2001) Fournier (1998) states that consumer-brand relationships are more a matter of perceived goal compatibility. Brands cohere into systems that consumers create not only to aid living but also to give meanings to their lives. Oliver (1999) argues that for fully bonded loyalty the consumable must be part of the consumer's self-identity and his or her social-identity.

Much of the literature on brand perceptions has looked at brand loyalty (e.g. Dowling and Uncles, 1997), and there is a range of conceptualizations of loyalty from repeat purchase to a lifetime relationship as conveyed in recent banking advertisements (Ennew and McKechnie, 1998). In addition, customers typically have loyalty relationships with a range of brands; this may include several brands associated with the same category of goods. Polygamous loyalty

(Uncles et al., 1995) is consistent with the notion of avoiding putting all one's eggs in one basket. This phenomenon is common in retail financial services where consumers are often "multi-banked". There is a consensus (e.g. Zeithaml, 1981) that loyalty to service companies is likely to be easier to maintain than with goods as consumers perceive there to be higher costs in switching services than goods. These higher costs may be associated with the acculturation or learning that is embedded in the provision of services. Clearly the use of library resources involves learning about use of IT-based services, location of stock, and the parameters of loans and reservations services and involves the management of customers' expectations by the service provider. In addition, services that a customer uses regularly, such as a bank or a library, may have a large interpersonal element with service agents, becoming in some cases an integral part of a customer's life. Often as a result of learning and familiarization, switching service providers carries a risk. Owing to the absence of tangibles, the risk associated with switching to a new service is perceived to be high, or, in other words, the customer cannot easily guess the quality of the service delivery of a new service provider, until they have sampled that service. The emotional costs already invested in relationships with a service provider contribute to make switching costs heavy.

### **2.1.2 Perceived Value**

Perceived value of a service has been defined by as the benefits customers believe they receive relative to the costs associated with its consumption. Zeithaml and Bitner (2000) have suggested that it is an overall evaluation of a service's utility, based on customers' perceptions of what is received at what cost, and that working definition was adopted for the present study.

Value includes not only quality, but also price. Rust and Oliver (1994) contend that a service may be of excellent quality but still be rated as poor value by customers if the price is too high. Heskett et al. (1997) argue that value is not necessarily equated with low prices because services with a perceived high value may in practice carry high or low prices. Their proposition that the value of a service to customers determines customer satisfaction and loyalty is supported by the classic work of Kotler and Levy (1969). The findings of personal interviews conducted by the

authors as part of a pilot study suggest that the technical and functional dimensions of service delivery, as well as price, are important to the supermarket in choosing budget accommodation.

### **2.1.3 Perceived Price Fairness**

From the consumer's perspective, the monetary cost of something is what is given up or sacrificed to obtain a product (Zeithaml, 1988). Thus, in studies on related topics, price has often been conceptualized and defined as a sacrifice (Anderson, Fornell and Lehmann, 1994; Sweeney, Soutar, and Johnson, 1999). There are three components to the concept of price: objective price, perceived non-monetary price, and sacrifice (Zeithaml, 1988). The objective monetary price (simply put, the amount of money paid for product) is not equivalent to the perceived price (that is, the price as understood and recorded in the mind of consumer) since consumers do not always know or remember the actual price paid for a product. Instead, they encode the price in a way that it is meaningful to them (Zeithaml, 1988).

As to the relationship between price and satisfaction, research has shown that price is one of the determinants of customer satisfaction (Anderson, Fornell, and Lehmann, 1994; Zeithaml and Bitner, 2000). When customers were asked about the value of services rendered, they consistently considered the price charged for the service (Anderson, Fornell, and Lehmann, 1994). In those cases in which consumers did not consider price in forming their judgments about the quality of service, it was generally because they lacked a reference price (Zeithaml and Bitner 2000). Still, though, this group ranked price as an important factor when it came to their overall satisfaction.

The theoretical formation of price perception in services remains largely unexplored (Varki and Colgate, 2001). This study suggests that the perception of price fairness plays an important role in any exchange transaction. The feeling of fairness depends on the gain-loss ratio felt by both partners in the exchange. From the consumer's perspective, the gain is the product to be received, whereas the loss is the money to be paid. When a consumer pays a higher price than others do, or when a consumer receives a lesser product than anticipated (either in terms of quantity or

quality), perceived negative price inequity occurs. On the other hand, perceived positive price inequity may result from either receiving a larger or better product than others, who paid the same price, or paying a lower price but receiving the same product. Price fairness should have an influence on customer satisfaction (Parasuraman, Zeithaml, and Berry, 1994) as well as on behavioural intentions (Varki and Colgate, 2001). This study, then, proposes that the perceived fairness of price should directly affect customer loyalty, and should also affect it indirectly via customer satisfaction.

#### **2.1.4 Customer Satisfaction**

Customer satisfaction is one of the key factors in modern marketing and customers' behaviour analysis. Generally speaking, if the customers are satisfied with the provided goods or services, the probability that they use the services again increases (East, 1997). Also, satisfied customers will most probably talk enthusiastically about their buying or the use of a particular service; this will lead to positive advertising (File and Prince, 1992) and (Richens, 1983). On the other hand, dissatisfied customers will most probably switch to a different brand; this will lead to negative advertising. The importance of satisfying and keeping a customer in establishing strategies for a market and customer oriented organization cannot be neglected (Kohli and Jaworski, 1990). Customer satisfaction is often considered the most important factor in thriving in today's highly competitive business world.

Services have unique characteristics that distinguish them from the physical goods (Zeithaml and Bitner, 1996). Services are often characterized by intangibility, inseparability, heterogeneity, and perishability (Lovelock, 1996). The importance of the above characterizations is that using them for evaluation before, while, and after using a particular service by the customers is often very hard (Legg and Baker, 1996). Because of the quality of being intangible, understanding how the customers would evaluate the quality of the organization's services is often very hard (Zeithaml and Bitner, 1996). In addition, the services are real time, i.e. they are used by the customers as soon as offered. They cannot be stored and quality passed like physical goods. Therefore any bad service will most probably be experienced by a customer, which results in customer's

dissatisfaction while using the service (East, 1997). Researchers have studied customer satisfaction in different contexts, e.g. Chen and Ko (2007) proposed fuzzy linear programming models to determine the fulfilments levels of parts characteristics under the requirement to achieve the determined contribution levels of design requirements for customer satisfaction. Grigoroudis et al. (2008), considered the problem of measuring user satisfaction in order to analyze user perceptions and preferences to assess website quality. Hsu (2008) proposed an index for online customer satisfaction, which is adapted from an American Customer Satisfaction Index (ACSI). Bodet (2008) explored the satisfaction–loyalty relationships according to an empirical analysis in a sports-service context (Yang and Peng 2008). The impact of satisfaction on loyalty has been the most popular subject of studies. Several studies have revealed that there exists a direct connection between satisfaction and loyalty: satisfied customers become loyal and dissatisfied customers move to another vendor. (Heskett et al. 1993) The primary objective of creating ACSI (American Customer Satisfaction Index) in 1984 was to explain the development of customer loyalty. In ACSI model customer satisfaction has three antecedents: perceived quality, perceived value and customer expectations. (Anderson et al. 2000) In the European Customer Satisfaction Index (ECSI) model perceived quality is divided into two elements: “hard ware”, which consists of the quality of the product or service attributes, and “human ware”, which represents the associated customer interactive elements in service, i.e. the personal behaviour and atmosphere of the service environment. (Gronholdt et al. 2000)

In both model increased satisfaction should increase customer loyalty. When the satisfaction is low customers have the option to exit (e.g. going to a competitor) or express their complaints. Researches have shown that 60–80% of customers who defect to a competitor said they were satisfied or very satisfied on the survey just prior to their defection. (Reichheld et al. 2000) So it's clear that there must be also other factors beside satisfaction that have a certain impact on customer loyalty. An early pioneer in the study of equity, George Homans stated that the essence of equity was contained in a "rule of justice" (as cited in Oliver, 1997). In fundamental terms, equity is an evaluation of fairness, rightness, or deservingness that customers make in reference to what others receive (Oliver, 1997). In the satisfaction literature, equity theory considers the ratio of the customer's perceived outcome/input to that of the service provider's outcome/input

(Oliver and DeSarbo, 1988). Bolton and Lemon (1999) extended this concept of outcome/input to the perspective of perceived value. They declared that equity referred to customers' evaluation of the perceived sacrifice (input) of the offering (outcome). Perceived sacrifices include purchase price and other possible costs such as time consumption (Yang, 2001).

A positive perception of value may bring customers back to make another transaction (Minocha, Dawson, Blandford and Millard, 2005). When customers believe they are being treated fairly in an exchange, they will be satisfied with the transaction if their outcome-to-input ratio is in some sense adequate (Oliver and DeSarbo, 1988). Fredericks and Salter (1998) pointed out that quality, price, and company or brand image were three factors that comprise the customer value package. In other words, customers will make an explicit comparison between what they give and what they get. The positive relationship between equity and satisfaction was supported in the literature (Oliver, 1993; Oliver and Swan, 1989a, 1989). However, customers expect prices to be lower in an online store than in a traditional sales channel (Karlsson, Kuttainen, Pitt and Spyropoulou, 2005). They may expect to get more value from an online store than from a physical store.

### **2.1.5 Proposed model and categories of loyal customers**

The proposed model seeks to further subdivide the category defined as loyals in Dick and Basu's categorization. There is agreement that loyals are important for the future of the business, and that this category is deserving of special attention. Organisations have the opportunity to develop life-long relationships with customers in this group, and may thereby benefit from the lifetime business associated with that customer. These customers are those who have a high relative attitude and a high relative behaviour. In the diamond of loyalty (Knox, 1998), this category, described again as loyals, exhibits high customer involvement, and the brand is responsible for a high relative share of their purchasing. It is proposed that since this category is key in customer development and profitability, it is important to understand the loyalty condition for this category in more detail, and to use this understanding to develop further the relationship with customers in the loyal category.

Increasing attitude strength is seen to be more predictive of behaviour (Krosnick and Petty, 1995) in the sense that it describes the attitude's durability and impactfulness. Inertial loyalty on either dimension is associated with loyals who are neutral about their loyalty; they are consistent in behaviour, but the fact that they do not switch does not signal any affinity for the business or brand. There are four categories of loyalty orientation: captive, contented, convenience-seekers, and committed. These all apply to customers who are loyal in both attitude and behaviour to the brand, but the introduction of inertial and positive as ends of a scale in relation to both attitude and behaviour, yield some categories which assist in thinking about the nature of loyalty. This is a speculative model at this stage of development, which is intended to provoke further thought about the nature of loyalty. By proposing a simple model that is amenable to further discussion and debate, we draw issues of convenience and customer choice into the debate. The discussion that follows explains how the categories in the model might be further conceptualized, and thereby seeks to illustrate how such a model might be useful to both practitioners and academics.

The model proposes that loyals can be segmented into four categories. Any one individual is likely to exhibit the characteristics of each of these categories in relation to different products, services, outlets, and their associated brands. Below is a brief description of each of the categories.

#### **2.1.6 Factors that Determine effective perceived quality of Drugs**

Keller (1993) suggested that image is based on customers' belief about a brand, while Gronroos (2000) argues that it is a value-added antecedent determining satisfaction and loyalty. Despite its clear relevance to customer satisfaction, image does not appear to have been explicitly examined in much of the associated research. It is intuitively reasonable to assume that supermarket's perceptions of value will often be influenced by the image of the supermarket, since its "products" cannot easily be distinguished from those of other budget accommodation. According to Fournier and Yao (1997), if the Tuskys supermarket's management believes that a certain supermarket is more credible and trustworthy than them, they develop a favourable image of the supermarket. That in turn tends to filter marketing communications and affect the word-of-mouth information that influences values perceptions. Kristensen et al (2000) have noted that



image has a significant impact on customer satisfaction impact on customer satisfaction and loyalty in a number of studies.

Technical (or outcome) dimensions of a service encounter are the tangible objects that remain after the completion of the service production process, when interactions between providers and their customers have ceased (Dobholkar et al., 1996; Gronroos, 2000; Morgan and Piercy, 1992). In the case of Tuskys supermarket, the technical dimensions are what they receive or experience after checking into the supermarket. They include such physical facilities as availability of parking spaces or clean and comfortable shopping space, as well as such other benefits as a many counters, express counters, acceptance of credit cards, etc.

The functional dimension of the service process, also described as “process quality” dictates how the service and its concurrent production and consumption process are received and experienced by customers (Dhabolkar et al., 1996; Gronroos, 2000; Morgan and Piercy, 1992). Unlike the technical dimension, which can be objectively evaluated, the functional dimension is intangible and subjectively determined by customers (Gronroos, 2000). Both dimensions of the service product influence customers’ perception of value. In earlier studies, Parasuraman et al. (1985) and Suprenant and Solomon (1987) suggest that friendliness, courtesy and personalised service are components of the functional dimension that contribute to and customer satisfaction and loyalty. Some specific functional dimensions in the context of Tuskys supermarket are the behaviour of the staff, the ease of shopping, and whether the shoppers are assisted to take their shopping to their nearest destination. Because the evaluation of the functional dimension varies between individuals, it plays an important role in determining customer satisfaction and hence loyalty.

Price is the cost incurred in making a purchase which, together with service quality, influences perceptions of value. It affects spending behaviour because consumers’ discretionary spending limits will determine what is to be bought on the basis of the price (Monroe, 1990). How much they are willing to pay differs because their readiness depends on their needs, and the importance of the service to them at a given time and place (Heskett et al., 1997). Price is believed to have

an impact on perceived quality because high-quality products and services normally cost more than low-quality equivalents (Lichtenstein et al., 1988). As a result, consumers, particularly inexperienced ones, tend to base their expectations and perceptions of image, quality and value on price (Zeithaml, et al., 1990). Therefore, a customer's perception of the value of a supermarket service is influenced by price.

Perceived value of a service has been defined by as the benefits customers believe they receive relative to the costs associated with its consumption. Zeithaml and Bitner (2000) have suggested that it is an overall evaluation of a service's utility, based on customers' perceptions of what is received at what cost, and that working definition was adopted for the present study. Value includes not only quality, but also price. Rust and Oliver (1994) contend that a service may be of excellent quality but still be rated as poor value by customers if the price is too high. Heskett et al (1997) argue that value is not necessarily equated with low prices because services with a perceived high value may in practice carry high or low prices. Their proposition that the value of a service to customers determines customer satisfaction and loyalty is supported by the classic work of Kotler and Levy (1969). The findings of personal interviews conducted by the authors as part of a pilot study suggest that the technical and functional dimensions of service delivery, as well as price, are important to the supermarket in choosing budget accommodation.

Satisfaction is a response that occurs when consumers experience a pleasurable level of consumption-related fulfilment when evaluating a product or service (Oliver, 1997, P.13). satisfaction ratings are the means to strategic ends, such as customer retention, and directly affect profits. Mittal and Kamakura (2001) argue that repurchase behaviour should be linked to satisfaction because the cost of retaining and maintaining an existing customer is less than the cost of acquiring a new one. Satisfaction (or dissatisfaction) has been defined as the perceived match or mismatch between, on the one hand, prior expectations of performance and perceptions of the value of the value of an exchange or transaction experience and, on the other, post-consumption evaluation of performance and value (McGuire, 1999; Oliver, 1997; Tse, 2001). The level of satisfaction or dissatisfaction reflects perceptions and attitudes formed from previous service experiences, and influences loyalty (McGuire, 1999). It may also result from a

summary cognitive and affective reaction to a service incident, or a long-term service relationship (Rust and Oliver, 1994, p.2).

Customer satisfaction is an important element in service delivery because understanding and satisfying customers' needs and wants can generate increased market share from repeat custom and referrals (Barsky, 1992). It therefore has a significant effect on future purchase intentions and on the formation of customer loyalty. When perceived value increases, the likelihood that customers being more receptive to competitors' marketing communications (Gronroos, 2000). Therefore, satisfaction greatly affects customer's loyalty to the brand.

The pharmaceutical industry in Kenya is regulated by the Ministry of Health through the Pharmacy and Poisons Board (PPB). Manufacturing, storage, promotion, distribution, dispensing and use of these products is elaborately spelt out in the Pharmacy and Poisons Act. Regular inspection is usually carried out by the officers from the PPB to ensure the drug industry players abide to the regulations laid down. This includes issues like expired drugs, unlicensed premises unqualified personnel, poor storage, drug abuse and promotional activities. It is the goal of the Ministry of Health and that of the Pharmacy and Poisons Board to provide the public and healthcare providers with accurate, fair and objective information about medical products so that rational decisions can be made as to their use. With this in mind, the Board has domesticated the International Code for Promotion of Pharmaceuticals to guide the work of Pharmaceutical Representatives. This code is not intended to restrain the promotion of medicinal products in a manner that is detrimental to fair competition. It is intended to promote rational prescribing, dispensing and use by the players in healthcare systems.

Trust is logically and experientially a critical variable in relationships, as has been hypothesized and borne out in the marketing literature (Moorman et al., 1993; Morgan and Hunt, 1994). Those who are not willing to trust a vendor in a competitive marketplace are unlikely to be loyal. The importance of trust in explaining loyalty is also supported by authors as Lim et al. (1997), Garbarino and Johnson (1999), Chaudhuri and Holbrook (2001), Singh and Sirdeshmukh (2000), and Sirdeshmukh et al. (2002). Trust is sometimes conceived of having two components,

performance or credibility trust and benevolence trust, as Ganesan (1994) pointed out in a business-to-business context. In this context, Ganesan found strong effects for credibility trust on relationship commitment but not for benevolence trust. He argued that this was because businesses base their purchase and selling decisions much more on performance issues. Clearly, performance or credibility trust is important in business-to-consumer relationships as well. Other authors have also suggested the existence of an effect for credibility trust on perceived quality (e.g. Chaudhuri and Holbrook, 2001; Garbarino and Johnson, 1999). Recently, Singh and Sirdeshmukh (2000) and Sirdeshmukh et al. (2002) have argued strongly for benevolence as a component of trust that may contribute to explaining loyalty.

Anderson and Narus (1990) emphasized that, in order to gain trust, one party has to believe that a third party will perform actions that result in positive outcomes for the first. Consequently, to trust a brand, a customer should perceive quality as positive. Doney and Cannon (1997) suggested that the construct of trust involves a calculative process based on the ability of a party to a transaction to continue to meet its obligations and on an estimation of the cost-benefits of staying in the relationship. Therefore, the customer should not only perceive positive outcomes but also believe that these positive outcomes will continue in the future. Trust has been recognized as an important factor in relationship commitment (see, for example, Morgan and Hunt, 1994, Moorman et al., 1993, Sharma, 2003) and hence in customer loyalty (see, for example, Fournier, 1998; Gundlach et al., 1995). It appears that, if one party trusts another, it is likely to develop some form of positive behavioural intention towards the other. Accordingly, when customers trust brands, they are also likely to form positive buying intentions towards them (Lau and Lee, 1999).

The minister of health, through the pharmacy and poisons board, is vested with the powers of controlling the pharmacy profession and the trade in drugs and poisons. The department of pharmacy of the Ministry of Health is responsible for administering drug control activities and for managing public sector drug supply. Drug control and administration activities will be supported by adequate numbers of qualified professional staff, specialised training, proper physical facilities, adequate transport, sufficient budgetary provisions, and necessary legal provisions. A grant will be solicited from the treasury to assist in the operation of the board. The

money from Treasury and any other money collected by the Board (Drug Registration and issue of various licences) will be used for running Board activities and implementing Board programmes.

Pharmaceutical products intended both for the Kenya market as well as products intended for export are registered with the pharmacy and poisons board. The following criteria are used in the registration, proven quality; safety and efficacy are key measure in drugs registration act. Specific medical need; new drug entities and drug combination should have an added advantage over the already registered product. With this regard, proposed wholesale and retail prices; products whose prices are excessive compared to those already registered for the same therapeutic indications are not accepted hence this tend to restore the unique characteristic of the drug product such as life saving and orphan drugs. Orphan drugs are products for rare conditions for which the small size of the local market would make registration otherwise commercially unattractive. Scheduling of drugs is one of the essential elements of the pharmacy and poisons act. It involves classification of drugs into various categories or schedules according to the level at which the drug can be prescribed and dispensed. Drugs are scheduled according to the different revised categories and packages must carry indication of appropriate categories in bold letters.

A pharmaceutical Inspectorate is established under the Pharmacy and Poisons Board to inspect drug outlets at regular intervals to ensure compliance with laws and regulations regarding storage and dispensing of pharmaceutical products. The pharmaceutical inspectorate is answerable to the Board through the Chief Pharmacist/Director of Pharmaceutical services. The inspectorates consist of staff from the Ministry of Health and from divisions of veterinary services. It also insist on the cored that promotional information on drugs should be clear, legible, accurate, balanced, fair, objective and sufficiently complete to enable the recipient to form his or her own opinion of the therapeutic value of the Pharmaceutical product concerned. Promotional information should be based on an up-to date evaluation of all relevant evidence and reflect that evidence clearly. It should not mislead by distortion, exaggeration, undue emphasis, omission or any other way. Every effort should be made to avoid ambiguity. Absolute or all-embracing

claims are cautioned and only with adequate qualification and substantiation. Descriptions such as 'safe' or 'no side effects' are generally avoided and always are adequately qualified.

In an attempt to counter the adverse effects of unethical promotional activities in the pharmacy industry and promote the concept of perceived quality, the Pharmacy and Poisons Board together with the stakeholders established a sub-committee to come up with appropriate guidelines on the challenges stated in the preceding. At national level and in major hospitals, the Ministry of Health through the Pharmacy and Therapeutic Committees endeavours to promote rational use of medicines by overseeing adherence to the established Essential Drugs list.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the research design that was used to meet the objectives of the study as set out in chapter one.

#### **3.2 Research Design**

This research problem can best be studied through the use of a descriptive survey. Descriptive research portrays an accurate profile of persons, events, or situations (Robson, 2002). Surveys allow the collection of large amount of data from a sizable population in a highly economical way. It allows one to collect quantitative data which can be analysed quantitatively using descriptive and inferential statistics (Saunders et al., 2007).

#### **3.3 Population of the Study**

The focus of this study was to be Doctors in KNH who are the key subjects for my important data . Data was collected from the Doctors of different levels. These were considered as the respondents of the study. The aim was to collect data from the respondents with a view of determining the effectiveness of brand perceived quality on the choice of prescription drugs by the Doctor at KNH.

#### **3.4 Sample and Sampling Technique**

The sampling technique that was used to select the sample was the stratified random sampling method .This method involved dividing the population into three strata. Dividing the population into a series of relevant strata meant that the sample was more likely to be representative (Saunders et al., 2007).

From the target population of 340 Doctors, the data was collected from a sample size of 85 Doctors. Mugenda and Mugenda (2003) argue that for a sample to be representative enough, it should be at least 10% of the target population. Stratified random sampling was used because the population was stratified according to their level of management (top, middle and lower ) giving three strata.

**Table 1: Target Population**

Level -	Population	Percentage
Top	12	14.1%
Middle	26	30.6%
Lower	47	55.3%
<b>Total</b>	<b>85</b>	<b>100%</b>

**3.5 Data Collection and method of collection**

The primary data was collected using questionnaires. The questionnaires were semi-structured with both open as well as closed questions. This facilitated the collection of both qualitative and quantitative data. The questionnaire was structured in two sections named Section A, and B. Section A of the questionnaire sought responses to the attributes of the respondents and the organization demographic information. Section B sought responses on the choice of prescription Drugs through perceived quality intervention.

A pilot testing was done first. This was done in order to ensure reliability of the data collection tool. The pre-test was done on a sample of 10 respondents from the population but not on the ones that finally filled the questionnaires. After the pre-test, the questionnaire was appropriately amended. The amended questionnaires were then administered to the respondents using the drop and pick method. To ensure high response rate, the questionnaires were accompanied by cover letters explaining the fact that the information was strictly confidential and that it was solely for



purposes of research and not for any other reason. Primary data was collected using a questionnaire with both close-ended and open-ended questions. A sample questionnaire has been included in the appendix. The questionnaire was self administered through personal interviews with the Doctors. Personal interviews were advocated by Parasulaman (1986) as having the potential to yield the highest quality and quantity of data compared to other methods because supplementary information can be collected in the course of the interview. This concurred with Cooper and Emory (1985) who state that the greatest value of personal interviews lies in the depth and detail of information can be secured.

### **3.6 Data Analysis**

Data was analyzed using descriptive statistics which included measures of central tendency (mean, median, mode and percentages) for qualitative variables. Afterward, the data was analyzed based on descriptive statistics. The descriptive statistics used here included the mean and the standard deviations. Any factor that scored less than 3 was not considered to be an important strategy. For the choice of prescription drugs and perceived quality, mean scores were used to rank the competitive strategies in order of use. Those strategies which had mean score of 3 or above were considered significant and therefore used by the mentioned Doctors. The results were then presented using tables and charts. The Statistical Package for Social Sciences (SPSS) aided in the analysis.

## **CHAPTER FOUR**

### **DATA ANALYSIS, PRESENTATION AND INTERPRETATION**

#### **4.0 Introduction**

This chapter presents analysis and findings of the study as set out in the research methodology. The data was gathered exclusively from questionnaire as the research instrument. The questionnaire was designed in line with the objectives of the study. To enhance quality of data obtained, Likert type questions were included whereby respondents indicated the extent to which the variables were practiced in a five point Likerts scale. The data has been presented in form of quantitative, qualitative followed by discussions of the data results. The chapter concludes with critical analysis of the findings.

#### **4.1 Respondents' demographic characteristics.**

##### **4.1.1 Response Rate**

The study targeted 85 respondents in collecting data. Results in table 4.1 below, show that 80 out of 100 target respondents, filled in and returned the questionnaire contributing to a 80% response rate. This response rate was good and representative and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. This commendable response rate was made a reality after the researcher engaged research assistants to administer the questionnaires. This survey can therefore be said to be successful.

Table 4.1: Response Rate

Response Rate	Frequency	Percentage
Responded	80	80
Not responded	5	20
<b>Total</b>	<b>100</b>	<b>100</b>

Source: Survey Data, (2010)

#### 4.1.2 Designation

Further, the study inquired the designation of the respondents. Majority of the respondents were in lower management comprising 50 percent, 28 percent were in middle management level while 22 percent were in lower management level.

Table 4.2 Designation

Designation	Frequency	Percentage
top management	18	22
middle management	22	28
lower management	40	50
<b>Total</b>	<b>80</b>	<b>100</b>

Source: Survey Data, (2010)

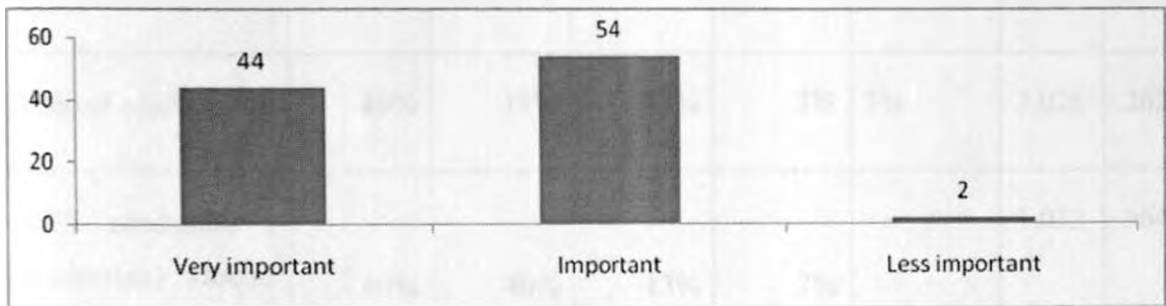
#### 4.2 Intrinsic factors

##### 4.2.1 Rating of importance of perceived quality as a requirement on the choice of drugs

This study aimed at establishing the rating of importance of perceived quality as a

requirement on the choice of prescription drugs. Findings from the study revealed that a majority of the respondents rated perceived quality as being important as a requirement on the choice of prescription drugs as was shown by 54 percent while 44 percent cited that perceived quality was very important as a requirement on the choice of prescription drugs.

**Figure 4.1 Rating of importance of perceived quality as a requirement on the choice of drugs**



Source: Survey Data, (2010)

#### 4.2.2 Effectiveness of brand perceived quality on choice of drugs.

The study revealed that all the respondents agreed that there was a criterion to countercheck strategies on perceived quality. The study further inquired on the effectiveness of brand perceived quality on choice of drugs. This section used a likert scale of 1=very effective, 2=effective, 3=moderate effective, 4= not effective and 5= negligible. The findings revealed in table 4.3 revealed that the various factors of brand perceived quality on choice of drugs considered very effective were Continuous Medical Education (CMEs) conducted, doctor meetings to discuss products, price, inclusion in pharmaceutical products directory, comparison with competitor brands, Over The Counter (OTC) or ethical medicines, Publications, International presence and side effects reported, shown by low mean scores of 1.0. In addition, the results revealed that the respondents cited distributors, recommendation by key opinion leaders in the profession, active ingredients, registration by Pharmacy and Poisons Board (PPB), packaging, dosage form and medical representative as the factors that were effective on perceived quality on choice of drugs.

**Table 4.3 Quality perceived**

	very effective	effective	moderate effective	not effective	negligible	Mean	SD
active ingredients	63%	25%	7%	5%		1.666	.6064
Availability	30%	20%	43%	7%		3.133	.9643
Children/ adults /both	40%	11%	43%	3%	3%	3.028	.2622
CMES conducted ( participation) Doctor meetings to discuss products)	40%	40%	13%	7%		1.033	.9643
Comments from peers ( other Drs of same ranking)	51%	30%	5%	4%	3%	3.212	0.7738
Competitor brands (Comparison)	74%	8%	7%	7%	4%	1.063	0.5508
country or origin	23%	10%	10%	4%	53%	4.109	0.6064
Distributors	65%	17%	7%	12%		1.500	1.106
dosage form	70%	21%	3%	3%	3%	1.833	.3790

Experience with other products from same firm	30%	20%	43%	7%		3.133	.9643
inclusion in hospital formulary	47%	10%	7%	40%	6%	4.043	1.106
inclusion in pharmaceutical products directory	74%	8%	7%	7%	4%	1.063	0.5508
International presence (worldwide usage / global)	73%	10%	10%	4%	3%	1.109	0.6064
Language on packaging	20%	20%	13%	4%	7%	4.033	.9643
language used to name brand	51%	30%	5%	4%	3%	3.212	0.7738
Launch	20%	11%	53%	13%	3%	4.028	.2622
Manufacturers	40%	40%	13%	7%		2.033	.9643
medical representative	77%	17%	3%	3%		1.866	.3457
Nature of disease – pain- infection	67%	10%	7%	10%	6%	1.943	1.106

Number of times taken in a day.	21%	30%	5%	4%	33%	4.012	0.7738
Number of years in the market	20%	20%	50%	3%	7%	4.133	.9643
Original or generic (original-innovator e.g. Augmentin (GSK))	67%	10%	7%	10%	6%	1.943	1.106
OTC or ethical medicines	74%	8%	7%	7%	4%	1.063	0.5508
Packaging	85%	9%	3%	3%		1.800	.5508
Patient comments	67%	10%	7%	10%	6%	1.943	1.106
personal experience	67%	10%	7%	10%	6%	1.943	1.106
presentation made by medical representative	40%	11%	43%	3%	3%	3.028	.2622
Price	74%	8%	7%	7%	4%	1.063	0.5508
promotional materials used	51%	30%	5%	4%	3%	3.212	0.7738
Publications	73%	10%	10%	4%	3%	1.109	0.6064

recommended by key opinion leaders in profession	65%	17%	7%	12%		1.500	1.106
Registration by PPB (Pharmacy poisons board)	63%	25%	7%	5%		1.666	.6064
samples given	30%	20%	43%	7%		3.133	.9643
Side effects reported	73%	10%	10%	4%	3%	1.109	0.6064
size of product portfolio	43%	25%	7%	5%	20%	4.190	.6064
Severity of conditions used – mild / moderate /severe	10%	10%	43%	3%	7%	4.033	.9643
Tender participation	25%	17%	7%	52%		4.300	1.106

Source: Survey Data, (2010)

#### 4.3 Distribution factors

This section aimed at establishing the distribution factors that affect brand perceived quality on choice of drugs. A likert scale of 1 = very low extent, 2 = low extent, 3 = neither large nor low extent, 4 = moderately large extent and 5 = very large extent was used. Findings from the study revealed that most respondents agreed to a great extent that the major distribution factors that affect brand perceived quality on choice of drugs were organizing or sponsoring conferences for medical practitioners, direct detailing to the health care providers, performing a major launch of



drug, marketing to the key account managers (key decision makers in hospitals, institutions, therapeutic committees, etc) , direct physician contact with pharmaceutical sales representatives and designing an optimal sales force to sell a particular portfolio of drugs to the target customers as was shown by means of 4.043, 4.034, 3.989, 3.445, 3.434 and 3.234 respectively.

**Table 4.4 Distribution factors**

	Mean	SD
Using opinion leader influence mapping by delineating which characteristics of true opinion leadership a physician does or does not possess so as to optimize their engagements as bona fide advisors to a brand.	2.8089	.4355
Identifying physicians most likely to prescribe a given drug and channelling marketing/sales forces to the targeted group.	2.947	.8786
Identifying and marketing through key opinion leaders who influence other physicians/prescribers.	2.992	.944
Designing an optimal sales force to sell a particular portfolio of drugs to the target customers	3.234	.9898
Direct physician contact with pharmaceutical sales representatives	3.434	.987
Marketing to the key account managers (key decision makers in hospitals, institutions, therapeutic committees, etc)	3.445	.9585
Performing a major launch of drug	3.989	.9455

## **CHAPTER FIVE:**

### **SUMMARY, CONCLUSION AND RECOMENDANTIONS**

#### **5.1 Summary**

The study established that a majority of the respondents were in lower management comprising 50 percent, 28 percent were in middle management level while 22 percent were in lower management level. On the rating of importance of perceived quality, the study revealed that a majority of the respondents rated perceived quality as being important as a requirement on the choice of drugs.

On the topic of effectiveness of brand perceived quality on choice of drugs, the study revealed that there were various factors leading to brand perceived quality on choice of prescription drugs by the doctors in KNH. These included country of origin, tender participation, severity of conditions for which drug is used, experience with other products from the same firm, inclusion in hospital formulary, launch, comments from peers, wide availability, number of years in the market and presentations made by medical representatives.

On the issue of the distribution factors that affect brand perceived quality on choice of drugs, the study revealed that the major distribution factors that affect brand perceived quality on choice of drugs were organizing or sponsoring conferences for medical practitioners, direct detailing to the healthcare providers, performing a major launch of drug, marketing to the key account managers (key decision makers in hospitals, institutions, therapeutic committees, etc) , direct physician contact with pharmaceutical sales representatives and designing an optimal sales force to sell a particular portfolio of drugs to the target customers.

#### **5.2 Conclusion**

The study concludes that the various factors that affect quality on choice of drugs are country of origin, inclusion in hospital formulary, launch, comments from peers, wide availability,

number of years in the market, tender participation, country of origin, experience with other products from the same firm, severity of conditions for which the drug is used and presentations made by medical representatives.

The study further concludes that the various distribution factors that affect quality on choice of drugs are direct detailing to the health care providers, performing a major launch of drug, marketing to the key account managers (key decision makers in hospitals, institutions, therapeutic committees, etc), direct physician contact with pharmaceutical sales representatives and designing an optimal sales force to sell a particular portfolio of drugs to the target customers.

### **5.3 Recommendation**

The study recommends that there is need for drug Inspectorate and promotional strategies on the safeguarding the perceived quality of drugs. These can be used to counter the adverse effects of unethical promotional activities in the pharmacy industry and promote the concept of perceived quality.

The study was done at KNH which is a public hospital and therefore I would recommend that further studies be done in private hospitals and mission hospitals in order to find out if doctors in those other hospitals use the same cues for quality perception when prescribing the drugs. This will clarify further the results obtained in this study.

## REFERENCES

- Aaker D.A. (2005) *Building Strong Brands*, ISQA, New York, NY
- Aaker D.A. (2005) *Managing Brand Equity*
- Adel I. El-Ansary, (2006), *Marketing Strategy: Taxonomy and Frameworks*, University of North Florida, Jacksonville, Florida, USA
- Ansoff, H.I. (1965), *Corporate Strategy*, McGraw-Hill, New York, NY.,
- Ansoff, H.I. (1990), "General management in turbulent environments", *Practising Manager*, Vol. 11 No.1, pp.6-27..
- Baron, S., Davies, B.J., Swindley, D. (1991), *Dictionary of Retailing*, Macmillan, London,
- Bennet, R. (1983) *Management Research: Management Development Series*, 20
- Bitner, M.J. (1990), "Evaluating Service Encounters", *Journal of Marketing*, Vol. 54.
- Business Monitor International, (2008), *Kenya Pharmaceuticals & Healthcare Report 2008: Quarterly Magazine*, 5 September 2008
- Chawla Jatin, (2006), *Generic Medicine can also be accessed on [www.buzzle.com/articles/generic-medicine-questions.html](http://www.buzzle.com/articles/generic-medicine-questions.html)*, 20/11/2008
- Collier, D. (1991), "New Marketing Mix Stresses Service", *Journal of Business Strategy*, Vol. 12 No.2, pp.42-5
- Czinkota, M. (1993), *International Market*, Dryden Press, Fort Worth, TX,
- DiMasi J.A. et al, (2003), *The price of innovation: new estimates of drug development cost*, *Journal of Health Economics* 22,

- Gronroos, C. (1990) *Service Management and Marketing*, Lexington Books, Lexington, MA.
- Jones, P., Vignali, C. (1994), "Commercial Education". *Journal of Retail Education*, Nevada.
- Keller K.L (2008) *Strategic Brand Management*
- Kotler, P. (1983), *Principles of Marketing*, Prentice-Hall, Englewood Cliffs, NJ, .
- Kotler, P., ( 1990), *Principles of Marketing, 4th*, Prentice-Hall, Englewood Cliffs, NJ,
- Kotler, P., (2003), *marketing insight from A to Z*, Canada, John Wiley and Sons, INC
- Lazer, W., Kelly, E.K. (1962 ), *Managerial Marketing: Perspectives and Viewpoints*, Richard D. Irwin, Homewood, IL, .
- Levitt, T. (1991), "Levitt on Marketing", *Harvard Business Review*, Harvard Press, Cambridge, MA, .
- MacCarthy, E.J. (1993), *Basic Marketing*, Irwin, Homewood, IL
- Mindak, W. and Bybee, H. (1988), 'Marketing's Application to Fund-Raising', *Journal of Marketing*, 35, pp. 13-18
- Morden, T. (1999), "Models of national culture: a management review", *Cross-cultural Management: An International Journal*, Vol. 6 No.1, pp.19-44.
- Mugenda (2003) *Research Methods* .
- Payne, A. (1994), "Relationship marketing-making the customer count", *Managing Service Quality*, Vol. 4 No.6, pp.29-31
- PhRMA, (2007), *pharmaceutical industry profile 2007: Pharmaceutical Research and Manufacturers of America*, Washington, DC:, March 2007
- Porter, M. (1985) *Competitive Strategy*, Free Press, New York USA

Porter, M.E. (1998) Cluster & the New Economics of Competition, Harvard Business Review, Nov/Dec

www.forbes.com, (2008-10-13), Thailand to import generic version of heart drug Plavix from India (2007-08-22)

[www.knh.go.ke](http://www.knh.go.ke)

[www.ministrvofhealth.go.ke](http://www.ministrvofhealth.go.ke)

## APPENDIX 1: QUESTIONNAIRE

### General information

1. Respondent's name: \_\_\_\_\_
2. Department: \_\_\_\_\_
3. Designation \_\_\_\_\_

### Intrinsic factors

1. How would you rate the importance of perceived Quality as a requirement on the choice of drugs?

Very important       Important       less important       negligible

2. Do you have any criteria to countercheck strategies on perceived quality?

Yes       No

3. If yes, can you briefly outline them?

4. How would you rate the following factors on the effectiveness of brand perceived quality on the choice of drugs?

<b>QUALITY PERCEIVED FACTOR</b>	<b>Very effective</b>	<b>Effective</b>	<b>Moderate effective</b>	<b>Not effective</b>	<b>Negligible</b>
1. Manufacturers					
2. Distributors					
3. Ingredient (active ingredients)					
4. Packaging (size, colour, number in Pack, quality of material)					
5. Dosage form (tablet, capsule, suspension, injection)					
6. Medical representative (individual medical representative)					
7. Presentation made by medical representative					
8. Availability (wide/limited)					
9. Inclusion in hospital formulary					



10. Country or origin (India, Europe, etc)					
11. Price					
12. Language used to name the brand (English, Kiswahili, etc)					
13. Language on packaging (English, Kiswahili, etc)					
14. Recommended by key opinion leaders in the profession.					
15. Size of product portfolio (range)					
16. Promotional materials used					
17. Launch – if launched in a scientific forum					
18. Samples given (more/less/nothing)					
19. Your personal experience with the brand					
20. Publication in a medical journal(s)					

21. Inclusion in pharmaceutical products directory.					
22. Experience with other products from the same firm					
23. Patient's comments					
24. International presence (worldwide usage)					
25. Competitor brands (Comparison)					
26. Comments from peers (other doctors of same ranking)					
27. Continuous Medical Education (CME) held to discuss the brand					
28. Tender participation in government and private institutions					
29. Registration by Pharmacy poisons board (PPB)					
30. Number of times taken in a day.					
31. Used by children, adults or both					

32. Number of years the brand has been in the market					
33. Original or generic					
34. Side effects reported by patients					
35. OTC or prescription only medicine					
36. Severity of conditions used -- mild / moderate /severe					
37. Nature of disease the brand is used (pain/infection)					

5. In your opinion, how do monetary related factor affect patients choice of drugs?

- Very high     
High     
Moderate     
Low     
Negligible

6. Please explain?

**6. Section B: Distribution factors**

The following are ways through which drug companies uses to sell the drugs to its pharmaceutical customers? Please rank the extent to which you prefer each way to be used.

- 1 means very low extent, 2 means low extent, 3 means neither large nor low extent,**  
**4 means moderately large extent, 5 means very large extent**

	Description	1	2	3	4	5
5	Direct detailing to the health care providers					
6	Marketing to the key account managers (key decision makers in hospitals, institutions, therapeutic committees. etc)					
7	Organizing or sponsoring conferences for medical practitioners					
8	Identifying and marketing through key opinion leaders who influence other physicians/prescribers.					
9	Direct physician contact with pharmaceutical sales representatives					
10	Identifying physicians most likely to prescribe a given drug and channelling marketing/sales forces to the targeted group.					
11	Performing a major launch of drug					

7. How would you consider the following factors on their importance in relation to the long term perceived quality of the drug market?

	Very important	Important	Neither nor	Not important	Negligible
1. Enough information on packaging / insert					
2. Imported legally					
4. Physical appearance of the category e.g. powder					
5. Storage					
6. Stores where drug is displayed (Clean for good quality)					
7. Expiry date					
8. Shelf life – if stayed in store for a long time					
9. Language on packing e.g. Kiataon, horidi etc (not understood well).					

**Thank you for your participation**

**APPENDIX 2: WORK PLAN**

Schedule of activities: the researcher started the study in June and completed by October 2010.

<b>Activity</b>	<b>July</b>	<b>August</b>	<b>September</b>	<b>October</b>	<b>October</b>
Literature review					
Questionnaire formulation					
Pilot Study					
Field Data Collection					
Data Analysis					
Report Writing					
Submission					

### APPENDIX 3: RESEARCH BUDGET

The table below describes the budget the researcher incurred during the period of study, detailing each item and its cost.

	<b>Items</b>	<b>Cost in Kshs.</b>
1	Stationery, typing papers, pens, flash disk	2,000.00
2	Secretarial services	1,000.00
3	Printing	2000.00
4	Binding	500.00
5	Mobile phones expenses	500.00
	<b>TOTAL</b>	<b>6500.00</b>

**APPENDIX 4: LIST OF PHARMACEUTICAL COMPANIES IN KENYA**

<b>PHARMACEUTICAL COMPANY</b>	<b>LOCATION</b>
Alpha Medical Manufacturers	Nairobi
Aventis Pasteur SA East Africa	Nairobi
Bayer East Africa Limited	Nairobi
Beta Healthcare (Shelys Pharmaceuticals)	Nairobi
Cosmos Limited	Nairobi
Dawa Pharmaceuticals Limited	Nairobi
Didy Pharmaceutical	Nairobi
Diversey Lever	Nairobi
Eli-Lilly (Suisse) SA	Nairobi
Elys Chemical Industries Ltd	Nairobi
Glaxo SmithKline	Nairobi
High Chem East Africa Ltd	Nairobi
Ivee Aqua EPZ Limited	Athi River
Mac's Pharmaceutical Ltd	Nairobi
Manhar Brothers (Kenya) Ltd	Nairobi
Novartis Rhone Poulenc Ltd	Nairobi
Novelty Manufacturers Ltd	Nairobi
Pfizer Corp (Agency)	Nairobi
Pharmaceutical Manufacturing Co (K) Ltd	Nairobi
Pharmaceutical Products Limited	Nairobi
Phillips Pharmaceuticals Limited	Nairobi
Regal Pharmaceutical Ltd	Nairobi