DOCTORS' PERCEPTION OF MERGERS AND ACQUISITIONS IN THE PHARMACEUTICAL INDUSTRY IN KENYA

BY

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DECLARATION

I declare that this research project is my own original work and has not been submitted anywhere else in any university.

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D61/P/8390/01

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DEDICATION

To my parents, Nyagah and Muthoni, I wish to thank you for your tireless effort throughout my life, continuous encouragement and support during my academic endeavours. To my precious daughter, Makena, for her unconditional love and patience, as I underwent this program. To my siblings Tony, Sammy, Judy and Carol, I thank the Lord for your love and unwavering support.

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ABSTRACT

Up to the year 2004, there were numerous mergers and acquisitions with the biggest being that of Glaxo Welcome and SmithKline Beecham to create the world's largest pharmaceutical company; GlaxoSmithKline. Many of these mergers are felt locally because many of these companies have local subsidiaries. There was therefore need to carry out a study to on doctors' perception of mergers and acquisitions on the pharmaceutical industry in Kenya. The objective of the study therefore was to determine the perception of doctors on mergers and acquisitions on the pharmaceutical industry in Kenya.

The population of interest in this study comprised of medical doctors in Nairobi. According to the Kenya Medical Directory (2006) there are 900 practicing medical doctors in Nairobi. A sample size of 50 doctors was considered fairly adequate and representative. The study used convenience sampling. The respondents were medical doctors chosen from randomly selected hospitals and clinics both in private and public practice.

Primary data sources were used to collect data using a semi-structured questionnaire. The questionnaire was divided into two parts. Section A was designed to collect general details about the respondent while section B focused on perception of the respondent towards mergers and acquisitions in the pharmaceutical industry. The data was analyzed using descriptive statistics.

The findings showed that apart from product's curative power and cost to patient, doctors perceived brand recognition and company's image to be very important. They also agreed that the merged companies were domineering and arrogant, and disagreed with the fact that merged pharmaceuticals companies are caring partners. The findings further showed that doctors perceived continuous research for more effective drugs; research on emerging diseases and cures, lobbying government to spend more on health as important in merged pharmaceutical companies. They also felt that social responsibility to deal with

problematic health issues was applied to some extent by the merged pharmaceutical companies thus influencing their expectations.

It was concluded that merged pharmaceutical companies are product and market oriented. However it the product range and perceived lower costs that impact more on the doctors. They are also domineering and arrogant implying that the company's image was found not to tally with the public's expectations. Product advertising and patient's choice were considered unimportant. Merged pharmaceuticals companies were found to apply continued research to better effective drugs and research on emerging diseases and cures. Doctors agreed that merged companies had less products overlaps and operating costs. However, unethical marketing and promotional tactics were found be the main barrier to mergers thus affecting the doctors' decisions on prescriptions.

The researcher recommended that merged pharmaceutical companies should strengthen their service delivery and portray a picture of caring and being socially responsible and involvement in corporate social responsibility. It was further recommended that recommended that merged pharmaceutical companies strengthen their involvement with research and advertising and promotion especially from the media.

CHAPTER ONE

INTRODUCTION

1.1 Background

Most companies begin as a small single business enterprise serving local or regional market. During the early years, its product line tends to be limited, its capital base thin, and its competitive position vulnerable. Usually the young company's strategic emphasis is on increasing sales volume, boosting market share and cultivating a loyal clientele. Profits are reinvested and new debt is taken on to grow the business as fast as conditions can permit. Price, quality, service and promotion are tailored more precisely to customer needs. As soon as practical, the product line is broadened to meet variations in customer wants and end use applications. According to Thompson and Strickland (1998), companies that concentrate on a single business can achieve enviable success sustain their growth. In diversifying firms can choose to acquire an existing business or form a joint venture with another firm. By acquiring another firm, the acquiring firm is able to gain a fast entry into the target market.

Industry attractiveness and competitive conditions are the main sources of challenges for firms and determine strategic direction. According to Thompson and Strickland (1997), a firm's assessment of the industry and competitive environment directly affects how it should try and position itself in the industry, and what its basic competitive strategy should be. The particular business opportunities a company has and the threats to its position that it faces are key influences on strategy. Strategy needs to be deliberately crafted to capture some or all of a company's best growth opportunities, especially those that enhance its long-term competitive position and profitability. Likewise, strategy should be geared to providing a defence against a company's threats to its well-being and future performance. Porter (1980) has outlined some challenges that firm face. Changes in long term industry growth rate affect the balance between industry supply and buyer demand, determining the extent of new entrants or exit and how a firm can capture additional sales. Porter (1980) adds that expanding industry growth attracts new entrants while existing firms expand their capacity, while in a decline, some firms exit the industry while others scale down their operations. Shifts in buyer demographics and emerging new uses for products can force adjustments in customer service offerings, opening the way to

market the industry's output through a different channel. The pharmaceutical industry is the fastest growing sector in merges and acquisitions worldwide. In this industry, new strategies development, development of new products, and increase in sales and profitability have been realized through mergers and acquisitions. Mergers and acquisitions have also been used as a means to overcome competitive disadvantages and industry entry barriers (Katuu, 2003).

Response strategies adopted by companies reflect the firm's internal strengths and the opportunities faced in the external environment. Strategy will also consider how best to deal with internal weakness and avoid external threats. Internal new venturing is a strategy employed when a company has a set of valuable competencies in its existing business than can be leveraged to enter a new business area (Hill and Jones, 2001). Science based companies use their technology to create market opportunities in related area mainly through internal new venturing. A firm can also use this strategy to enter and compete in a new business area or an emerging market where there are no established players. Joint ventures as a strategy is adopted where a firm sees an opportunity in a growth industry but is unable to undertake the risks and costs associated with the project. Restructuring is a strategy for reducing the scope of a firm by exiting some business areas. In many cases, companies restructure to divest from diversified activities in order to concentrate on their core business (Hatfield, 1996).

1.1.1 The Concept of Perception

Perception can be described as how we see the world around us. Schiffman and Kanuk (1994) define perception as the process by which the individual selects organizes and interprets stimuli into a meaningful and coherent picture of the world. A stimulus is any unit of input to the senses. Examples of stimuli include products, packages, brand names, advertisements and communication. Perception dwells largely on what we subconsciously add or subtract from raw sensory inputs to produce out own private picture of the world. Individuals receive or sense information through the five senses of sight, hearing smell, touch and taste. Perception is the process by which this information is selected, organized, and interpreted to produce messages and meanings (Adcock et al, 2003). Perception is therefore of interest to marketers because of the influence it can have on consumer decision making generally and on the way it can affect antecedent factors such

as reception and understanding of marketing communications. In a marketing context, people tend to perceive products and product attributes according to their own expectations. These expectations are based on familiarity previous experience or a pre-conditioned set. Schiffman and Kanuk (1994) argue here that stimuli that contrast sharply with expectations often receive more attention.

Organizations must be very keen on how consumers and stakeholders perceive their products and the organization as a whole. According to Schiffman and Kanuk (1994) consumers have a number of enduring perceptions or images products and brands have symbolic values for individuals, who evaluate them on the basis of their consistency with their personal picture of themselves. Belk (1988) is of the view that consumers attempt to preserve or enhance their self images by buying products they believe are congruent with that self image and avoiding products that are not. Consumers also judge the quality of a product or service on the basis of intrinsic and extrinsic cues. Cues that are intrinsic concern the physical characteristics of the product itself such as colour, size and flavor. Consumers like to believe that they base their product quality evaluations on intrinsic cues because they can justify their product decisions on the basis of a rational or objective choice. Extrinsic cues are external to the product itself. Such as price, manufacturers image, store or channel image. Hawkins and Beatty (1989) found that consumer preferences are more often based on extrinsic cues such as advertising, pricing and even peer pressure.

1.1.2 Mergers and Acquisitions

A merger occurs where two or more organizations of about equal size consolidate to from one enterprise (David, 1999). Mergers are typically the result of organizations coming together voluntarily because they are actively seeking synergistic benefits, perhaps as a result of the common impact of a changing environment, in terms of either opportunities or threats, or the excessive costs of innovation (Johnson and Scholes, 2003). To Favora (2002), mergers and acquisitions create synergy. Synergy in this context refers to the ability of two or more units to generate greater value working together. Synergy, Favora (2002) proposes, can take the form of shared know how where partners benefit by sharing skills, procedures and pooling insights and human resources as a single unit. Value is

created by leveraging on core competences and sharing best practices. Partners share tangible resources by sharing assets and resources while the newly formed units saves on costs, gains economies of scale and avoids duplicating efforts, hence optimizing on synergies. Pooled negotiating power is now achieved where purchases are joint, leading to reduced costs and improved leverage over suppliers. The newly formed unit is also better able to deal with customers and shareholders because interests, and resources are consolidated, leading to bargaining power (Favora, 2002). Combined business creation: Mergers and acquisitions combine know how to create new opportunities and capabilities. Parties to the mergers and acquisitions direct their joint resources and capabilities at achieving a competitive advantage instead of competing leading to greater growth and profit of the new unit. They also coordinate responses to common threats and competitors, enabling the parties to achieve greater success than would be achieved as separate units (Johnson and Scholes, 2003).

According to Johnson and Scholes (2003), an acquisition is where an organization develops its resources by taking over another organization. Development by acquisition tends to proceed in waves and is also selective in terms of industry sector. The main reason however, in mergers and acquisitions is the need to keep up with a changing environment. A compelling reason to develop by acquisition is the speed with which it allows the firm to enter new product or market areas. In static markets, and where market shares of firms are reasonably steady, it can be a difficult proposition for a new company to enter the market as its presence may create excess capacity. However, if the new company enters by acquisition, the risk of competitive reaction is reduced. The lack of resources of competences, and the reality that the necessary innovations cannot be put in place fast enough also motivates acquisitions. International developments are often pursued through acquisition for this reason of market knowledge (Johnson and Scholes, 2003).

An acquisition is used where a firm wants to enter a business area where it lacks competencies required to compete in that area, but it can acquire another firm that possesses these competencies (Hill and Jones, 2001). Thompson and Strickland (1998) are of the opinion that acquisitions help firms overcome such entry barriers as technological inexperience, establishing supplier and channel relationships, being big

enough to match rivals' efficiency and unit costs, having to spend large amounts on introductory and brand recognition, and getting adequate distribution. Companies use acquisitions when they need to enter a new business area or market fast and also need to establish a significant market presence and generate greater profits. Acquisitions are less risky because they involve less time to build market shares and reputations and they are speedy. When a company makes an acquisition, it is acquiring known revenue, sales profits and market share, which reduces uncertainty and risk. Cost efficiencies can also be a reason for acquisitions. These cost efficiencies could arise from the fact that an established company may be well a head on the experience curve, having achieved efficiencies which could be difficult to match quickly by internal development, and the necessary organizational learning could be too slow (Thompson and Strickland, 1998). Acquisitions can also be driven by the expectations of key stakeholders. This is where institutional shareholders expect to see continued growth, and acquisition may be a quick way to deliver this growth.

1.1.3 The Pharmaceutical Industry in Kenya

The pharmaceutical industry in Kenya has undergone numerous changes since being liberalized in the early 1990s. There has been an influx of many pharmaceutical companies into the market, either as direct investments or through franchise holders (Ronoh, 2002). The product range within the industry can be broadly categorized into prescription medication and non-prescription medication. In 1999, there were 4,441 medical doctors with less that 20% of these being in the public sector (Kenya Medical Directory, 2001). This translates to 15 doctors per 100,000 people. Similarly, there were 1,650 pharmacists, which translates to 6 pharmacists per a population of 100,000. The target market for the pharmaceutical industry comprises the doctors who eventually prescribe the medicine to the ultimate consumer or the patient (Ongubo, 2003). The other growing target market is the pharmacist who is increasingly playing a significant role in influencing or convincing doctors to change medication in the prescription. Patients also play a significant role in influencing the doctor's prescription by preferring certain brands on the basis of perceived effectiveness or origin (Ongubo, 2003). Though direct marketing of prescription drugs is illegal, patients are increasingly asserting their preference on the medication that doctors and pharmacists recommend particularly in the private health care setup where the patients pay directly for medication and service.

The pharmaceutical industry in Kenya is mainly import based through a few firms manufacture locally. The traditional source for drugs has been predominantly the European Union. However, with the current economic downturn, Asia and Latin America have become alternative sources particularly India (Ronoh, 2002). Today in Kenya, pharmaceutical managers are faced with great issues. These are reduced purchasing power, entry of health management organization (HMO) in the market that dictate what to be included in the formularies, reduced growth rate, increased competition, consumer awareness, pressure on pricing and reduced government expenditure on direct purchases. This has resulted in cutthroat competition and reduced profits (Odhiambo, 1999). The selling of pharmaceuticals is such that distribution, wholesaling and retailing must be done by a registered pharmacist in a registered premises. Advertising of prescription products can only be on printed professional journals as set out by caption 244 of the Laws of Kenya. Changes in the external environment, especially since the mid 1990s, have led to stiff competition forcing many firms to go into mergers and acquisitions in order to maintain their competitive advantage. In Kenya, the acquisition of Aventis by the relatively small and little known Sanofi Synthelabo came as a surprise to many. The doctors particularly did not understand the whole issue and the sales representatives of the new outfit; Sanofi-Aventis had a difficult time convincing the doctors; their first line customers, that the new outfit was genuine and that it would continue supplying the same brands and quality offerings.

1.2 Statement of the Problem

The pharmaceutical industry in Kenya has been characterized by many changes and an increasingly turbulent environment. The configuration of competitive forces such as intensity of competition, new entrants, substitute products and supplier and buyer power have transformed the environment a great deal, creating the need for firms to change their competitive positions (Ndiho, 2001). Strategic alliances, mergers and acquisitions are some of the strategies that firms have adopted in order to survive, grow and operate profitably. Wachira (2002) observes that prohibitive costs, time limitation and scarcity of expertise as well as management of resources are some of the factors that drive firms into mergers and acquisitions. The most pressing need for many pharmaceutical companies is to ensure they generate sufficient new products to secure future growth. In recent years,

productivity in the pharmaceutical industry has fallen to a record low. According to the Scrip Reports, (2004), for the top pharmaceutical companies, productivity has fallen from an average of 1.5 new products annually during most of the 1990s, to just under one product per company, since 2000. With such poor productivity levels, it is not surprising that mergers and acquisitions have risen to the forefront of many executives' minds as an immediate route to strengthening research and development pipelines and increasing shareholder value. The need for speed forces pharmaceutical companies to acquire rather than build. By using the route of merges and acquisitions they are able to add capabilities, competences, revenues and growth and to create new business by consolidating (Booz, 2001). More companies are finding mergers and acquisitions to be a compelling strategy for growth.

Doctors, being the target customers of pharmaceutical companies form a link between the final consumers of pharmaceutical products or the patients and the pharmaceutical companies. It is therefore important that their perception of the emerging trend of mergers and acquisitions, which has become characteristic of the pharmaceutical industry in Kenya, be understood. Doctors are perhaps the most important players in pharmaceutical sales (Gozner, 2004). They write the prescriptions that determine which drugs will be used by the patient. Influencing the doctor is key to pharmaceutical sales. According to Harder (2005) as influential as advertising drugs to consumers may be, it represents only a small fraction of pharmaceutical companies' promotional efforts. In 2003, the industry spent $3.2 billion on consumer oriented marketing and $5.3 billion in 2003 on detailing; a term for the face to face promotional activities directed toward doctors, and distributed $16.4 billion worth of free samples that year (Donohue, 2004). The companies also spent $448 million on advertising in medical journals.

A survey of doctors published in 2001 found that 92% had accepted free drug samples and other freebies, too, including meals, travel, entertainment and tickets to conferences (Harder, 2005). Studies show that such marketing and interaction with drug company representatives were associated with changes in doctor's prescribing patterns (Blumenthal, 2004). The drug companies spend this much on marketing to doctors than they do advertising to patients because they know their profits depend upon whether a doctor is motivated to prescribe the newest blockbuster. In view of the considerable

relevance of customer satisfaction for the success of a company, it comes as no surprise to find that a large number of marketing studies are devoted to measuring customers' perception of the fitness of company performances (Day and Perkins, 1992; Yi, 1990). In the context of doctors and pharmaceutical companies, how the doctors perceive these companies, their products and the strategic moves they make, such as mergers and acquisitions becomes very important.

Whereas previous studies by Ndiho (2001), Wachira (2001), Rohoh (2002), and Ongubo (2003) have focused on marketing practices within the pharmaceutical industry in Kenya, strategic alliances at Elli Lilly, and direct marketing practices in the pharmaceutical industry respectively, none has specifically examined the issue of doctors' perception to mergers and acquisitions in the industry. This however remains a very crucial issue in as far as the marketing of pharmaceutical products is concerned. Up to the year 2004, there were numerous mergers and acquisitions with the biggest being that of Glaxo Welcome and SmithKline Beecham to create the world's largest pharmaceutical company; GlaxoSmithKline (Scrip Reports, 2004). Many of these mergers are felt locally because many of these companies have local subsidiaries. There is therefore need to carry out a study on doctors' perception of mergers and acquisitions on the pharmaceutical industry in Kenya. The proposed study is in response to this need.

1.3 Objectives of the Study

The objective of the study was to determine doctors' perception of mergers and acquisitions among firms in the pharmaceutical industry in Kenya

1.4 Importance of the Study

The findings of the study may be useful to the following:

i. Pharmaceutical companies can use this information to decide on appropriate strategies to deal with their corporate image, enhance or improve how doctors as their customers perceive them.
ii. The information can assist in setting out strategies for relationship marketing by the marketers and sales representatives and improve their relationship with doctors.
iii. Researchers and scholars who will undertake further studies in a related field.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The study of consumer perception helps organizations to improve their marketing strategies by understanding how consumers think, feel, reason, and select between different alternatives and brands. It gives a deeper understanding of how the consumer is influenced within the environment, the behavior of consumers while shopping or making purchasing decisions, how limitations in consumer knowledge or information processing abilities influence decisions and marketing outcome and how consumer perception, motivation and decision strategies differ between products that differ in their level of importance or interest that they entail for the consumer. Based on this, marketers can adapt and improve their marketing campaigns and marketing strategies to more effectively reach the consumer. Understanding these issues helps marketers adapt their strategies by taking the users needs into consideration and making informed decisions as to which strategies to employ.

2.2 Meaning and Role of Perception

Perception is the process by which an individual selects, organizes, and interprets stimuli into a meaningful and coherent picture of the world (Schiffman and Kanuk, 1994). According to Kotler and Armstrong (1999), a person's buying choices are influenced by four major psychological factors, motivation, perception, learning and beliefs and attitudes. Perception depends not only on the physical stimuli, but also on the stimuli's relation to the surrounding and environment and on condition within the individual. Sensation is the immediate and direct response of the sensory organs to simple stimuli and it solely depends on energy change or differentiation of input. A perfectly bland or unchanging environment, regardless of the strength of the sensory input, provides little or no sensation at all. Human sensitivity refers to the experience of sensation. Sensitivity to stimuli varies with the quality of an individual's sensory receptors such as eyesight or hearing and the amount of intensity of the stimuli to which he or she is exposed (Schiffman and Kanuk, 1994). The lowest level at which an individual can experience a sensation is called the absolute threshold. This is the point at which a person can detect a difference between "something" and "nothing" for a stimulus.

The minimal difference that can be detected between two stimuli is called the differential threshold or the JND (just noticeable difference) (Schiffman and Kanuk, 1994). A 19th century German scientist named Ernst Weber discovered that the just noticeable difference between two stimuli was not an absolute amount, but an amount relative to the intensity of the first stimulus. Weber's law, as it has come to be known, states that the stronger the initial stimulus, the greater the additional intensity needed for the second stimulus to be perceived as different. According to Weber's law, an additional level of stimulus equivalent to the j.n.d. must be added for the majority of people to perceive a difference between the resulting stimulus and the initial stimulus. Weber's law has important applications for marketing. Manufacturers and marketers endeavor to determine the relevant JND for their products for two very different reasons: So that negative changes such as reductions in product size, increases in product price, or reduced quality are not readily discernible to the public, and so that product improvements such as improved or updated packaging, larger seize, or lower price are readily discernible to consumers without being wastefully extravagant. When it comes to product improvements, marketers very much want to meet or exceed the consumer's differential threshold and they want consumers to readily perceive any improvement made in the original product (Schiffman and Kanuk, 1994). With respect to packaging, astute marketers usually try to differentiate their packaging sufficiently to ensure rapid consumer perception.

Customers perceive goods services offerings in terms of the quality and how satisfied they are on overall with their expectations (Maina, 2003). Zeithaml and Bither (2000) define satisfaction as the customers' fulfilment response. It is a judgement that a product or service feature, or the product or service itself provides a pleasurable level of consumption related fulfilment. Customer expectations are influenced by their experiences, word of mouth and advertisements. According to Kibera (1999), customers use basically similar criteria to perceive goods or services. These are: reliability that arises from consistency in performance, responsiveness depicted by employees' willingness to provide service, competence shown by knowledge and skill of operational personnel, credibility or trustworthiness, communication courtesy exhibited by friendly

employees, access, security, empathy demonstrated by provision of individualized attention and tangible aspects such as performance, economy and service.

Marketing managers recognize the efficiency of targeting their products to the perceived needs of consumers (Schiffman and Kanuk, 1994). In this way, they help to ensure that their products will be perceived by potential prospects. The identification of perceived consumer needs has a number of different applications. For example, marketers can determine through marketing research what consumers consider to be the ideal attributes of the product category, or what consumers perceive their needs to be in relation to the product category. The marketer can then segment the market on the basis of these needs and vary the product advertising so that consumers in each segment will perceive the product as meeting their own specific needs, wants, and interests.

2.2.1 Factors Influencing Perception

Misumi (2003) argues that perception is based on self-image relevant to consumers. Marketers can utilize this in product positioning and management of marketing mix variables as well a building brand image. Internal factors in perception revolve around the characteristics of the perceiver (Ngahu, 2003). The perceiver has a tendency to use himself as a basis for perceiving others. The internal factors include motives, expectations, needs, experience, self concept, and personality. Schiffman and Kanuk (2002) add that in the marketing context, people perceive products and product attributes according to their own expectations. External factors are centred on the characteristics of the perceived object (Ngahu, 2003). Knowledge of these characteristics such as appearance, contrast and intensity influences perception.

Weber's Law suggests that consumers' ability to detect changes in stimulus intensity appear to be strongly related to the intensity of that stimulus (Schiffman and Kanuk, 1997). Surprising stimuli are therefore likely to get more attention as instinct requires us to give more attention to something unknown that may require action. A greater contrast or difference between the stimulus and its surroundings as well as greater prominence such as greater size, centre placement also tends to increase likelihood of processing. In order for stimuli to be consciously processed, attention is needed. Attention is actually a matter of degree. Our attention may be quite high when we read directions for getting an income tax refund, but low when commercials come on during a television program.

2.2.2 Measuring Perception

The best companies differentiate themselves from their competitors in ways their customers care about. They constantly work to understand their customers' needs by surveying the market's perception of their performance compared with the competition. Due to this importance of customer satisfaction for the success of a company, a large number of marketing studies have been devoted to measuring customers' perception of the company's goods and service. In her study of Customer's perception of telephone providers' value propositions in Nairobi, Sossion (2003) used price, satisfaction with service, service quality and benefits derived to measure perception. This forms the conceptual framework for measurement of the broad dimensions of perceptions of mergers and acquisitions.

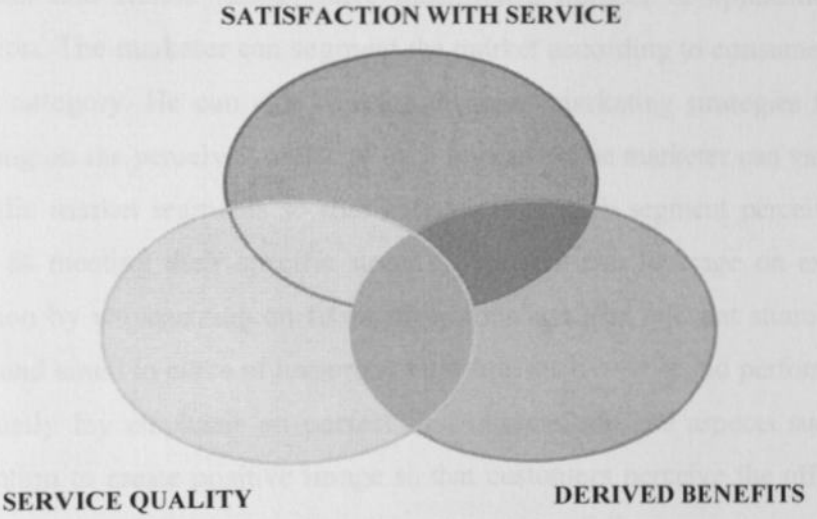

Figure 1: Perception Measurement
A Survey of Customer Perception of Telephone Provider's Value Propositions in Nairobi (Modified from Sossion, B. (2003) pg 30

Measuring perception can be difficult. In many situations, consumers do not consciously set out to enumerate how positively or negatively they feel about products, and when a market researcher asks them about their perception of these products, how important these beliefs are, and their evaluation of the performance of these products with respect to these beliefs, consumers often do not give very reliable answers.

According to Zeithaml and Bitner (1996) price is perceived value, which must be understood by service providers so that they price their offerings in line with customer expectations. Price can also have a negative effect on value and the consumer's willingness to buy. Bennet (1999) argues that customers want the products and services they purchase to be of reasonable quality. They demand fair prices, prompt delivery, and excellent after sales service. Satisfaction is therefore a person's feeling of pleasure or disappointment arising from the product's perceived performance in relation to his expectations (Sossion, 2003). Consumers choose between different offerings on the basis of that which is perceived to deliver the most value. The customer will therefore get the benefits and assume the costs. Benefits include functional benefits and emotional benefits, while costs include monetary, time, energy, and psychic costs.

Schiffman and Kanuk (2002) have identified a number of applications of consumer perception. The marketer can segment the market according to consumers' attributes in a product category. He can also develop different marketing strategies for each segment depending on the perceived needs of each segment. The marketer can vary the advertising to specific market segments so that consumers in each segment perceive the product or service as meeting their specific needs. Marketers can leverage on external factors of perception by emphasizing on first impressions and less relevant stimuli such as colour, texture and smell in place of important attributes such as cost and performance. Marketers will usually lay emphasis on perfect first impressions and aspects such as colour and presentation to create positive image so that customers perceive the offering in the most favourable manner and as meeting their expectations fully.

2.3 Mergers and Acquisitions

The pharmaceutical industry, known for its high profits and fast growth has seen very many mergers and acquisitions within. Competition and innovation is frequent in the industry, mainly due to demands for medical cost containment (Katuu, 2003). The industry faces a very difficult operating environment. The challenges faced are mainly driven by mounting competitive pressure from cheaper generic drugs and similar product lines, changes in customer profiles and purchasing power, and consumer reaction to high drug costs through health management organizations and medical insurers and schemes.

Mergers and acquisitions are a critical strategic tool for growth in the new economy (Chaudhuri and Tabrizi, 1999). The need for speed forces companies to acquire rather than build. Mergers, according to Booz (2001), add capabilities, competences, revenues and growth to create new business by consolidating and adding competitiveness. In as far as the use of technology is concerned; they add competitive strength (Chandler, 2000).

Chandhuri and Tabrizi (1999) argue that more companies are finding merges and acquisitions to be a compelling strategy for growth. The pharmaceutical industry is presently the fastest growing sector in mergers and acquisitions worldwide. In this industry, new strategy development, development of new products, and increase in sales and profitability have been realized through mergers and acquisitions. Mergers and acquisitions have also been used as a means to overcome competitive disadvantages and industry entry barriers (Katuu, 2003). According to Johnson and Scholes (2002) mergers are the result of organizations coming together voluntarily because they are seeking synergistic benefits. A merger therefore occurs where two or more organizations of about equal sizes consolidate to from one enterprise (David, 1999).

Mergers and acquisitions have in the recent past, been driven by a general market consolidation occurring in many industries. Other reasons include need for improved capacity utilization, economies of scale, smoothing out of seasonal effects in sales, gaining access to new markets, suppliers, channel intermediaries, and the need to gain new technology and reduce tax obligations (David, 1999). An acquisition is where an organization develops its resources and competences by taking over another organization (Johnson and Scholes, 2002). Development by acquisition enables the firm to enter new product or market areas. Where the product or market is changing rapidly, acquisition becomes the only option for entry as internal development is too slow. The competitive situation may influence a firm to prefer acquisition, particularly where there are static markets and market shares are reasonably steady. New entrants can avoid competitive reaction from existing players by using the acquisition entry strategy. Acquisitions can be motivated by lack of competences. Where these cannot be put in place fast enough, and then an organization can acquire them for its continued success. Institutional shareholder may wish to use continued growth and acquisitions may be quick way of delivering this

growth. This is also the case where shareholders do have speculative interests (Johnson and Scholes, 2002).

Mergers in the pharmaceutical industry are not new. However, in recent years, there have been increases in the level of pharmaceutical merger activity and more firms using strategic partnerships and joint ventures to develop and market new products (Narayanan, 1993). The industry is highly regulated, extremely complex, and filled with financial and economic challenges and points of interest. Finance managers in the industry are faced with many issues including managed care, insurance reimbursement, patents and generic competition, licensing, royalties, co-promotions, joint ventures, co-marketing rights, high risk and high cost research and development, parallel import issues, and international regulations (Clark, 1996). Although consolidation in the pharmaceutical industry is nothing new, the recent increases in merger activity reflect an increasing number of financial and strategic challenges now facing the industry. These often-unique financial challenges have made size a desirable objective.

If mergers were to succeed anywhere, it would seem that the pharmaceutical industry offers the greatest chances for success (Narayanan, 1993). Operating economies, including the elimination of overlap in research and development, production and marketing, can produce meaningful cost savings. Graves (1993) argues that given the industry challenges ahead, size alone should add at least some value. The main advantages of size for pharmaceutical companies include: clinical trial economies of scale, enhanced and more utilized sales representative coverage, increased lobbying power both political and with wholesalers, and balanced risk in terms of the company's pipeline and product portfolio. However, many of these benefits are only temporary, given the current rate of consolidation within the industry. There are, however, potential significant disadvantages associated with large size. These include: diseconomies of scale and control, lack of focus, the potential for disconnection between research and development and commercial viability leading to investment in sub-optimal projects from a commercial perspective, and loss of an entrepreneurial environment that encourages and rewards discovery. Finally, and perhaps most importantly, these mergers may not deal

with some of the most important emerging areas in pharmaceutical development, namely biotechnology and genomics.

For the established pharmaceutical companies the response to the discovery uncertainties has been to build scale through mergers and acquisitions so that the latter stages of their product pipelines have at least a handful of highly prospective blockbuster drugs (McGahan, 1994). Scale offers the capacity to both fund in house research and draw in external research through a variety of licensing arrangements and alliances. It has also provided the necessary marketing resources in an industry in which these costs absorb some 35% of revenues. More often than not mergers occur to cover weaknesses in the research and development pipeline (Agarwal and Desai, 2001). In some cases companies have combined mutually supportive capabilities, for example between one with a drug pipeline and the other with a sales and distribution capability. By merging they create a company with a credible business model; possessing both a valuable drug development pipeline and an effective sales and distribution capability.

2.4 Factors Underlying Mergers and Acquisitions

Clark (1996) posits that there are seven main reasons why the pharmaceutical industry has been consolidating in recent years i.e. drug reimbursement issues, political pressures and growing concerns over drug prices, patent expirations and generic competition, sales growth issues, research and development pipeline gaps and synergies, the increasing use of direct to consumer campaigns, and finally, recent developments in biotechnology and the mapping of the human genome. Firms are merging in order to exploit cost savings and benefit from economies of scale and scope in research and development. Research and drug development in the pharmaceutical industry is extremely risky, expensive, and time consuming. Many companies also have significant gaps in their development pipelines. This has profound implications for a pharmaceutical organization in terms of future sales growth. Finance managers in pharmaceutical companies spend a lot of time analyzing the corporation's product portfolio and have to make tough decision to make sure that the company has the right balance of risk and return, and early and late stage opportunities (Narayanan, 1993). Companies need to invest carefully given the fact that development programs are so expensive and time consuming.

According to Favora (2002), mergers and acquisitions create synergy, which is the ability of two or more units to generate greater value working together. Favora (2002) explains that synergy can take the form of shared know how where partners benefit by sharing skills, procedures and pooling insights and human resources as a single unit. Value is created by leveraging on core competences and sharing best practices. Partners share tangible resources by sharing assets and resources while the newly formed units saves on costs, gains economies of scale and avoids duplicating efforts, hence optimizing on synergies. Pooled negotiating power is now achieved where purchases are joint, leading to reduced costs and improved leverage over suppliers. The newly formed unit is also better able to deal with customers and shareholders because interests, and resources are consolidated, leading to bargaining power (Favora, 2002). Mergers and acquisitions combine know how to create new opportunities and capabilities. Parties direct their joint resources and capabilities towards achieving a competitive advantage instead of competing, leading to greater growth and profit of the new unit. They also coordinate responses to common threats and competitors, enabling the parties to achieve greater success than would be achieved as separate units (Katuu, 2003). Mergers and acquisitions coordinate the flow of products ands services between units, thereby reducing costs, speeding up product development, increasing capacity utilization and market access.

The forces of consolidation are today shaping industries. In this respect, Katuu (2003) outlines the triggers for mergers and acquisitions such as disappointing growth. High rates of growth indicate an attractive market, however, when growth slows down, it brings loss of market share, low capacity utilization, and price wars as companies intensify competition. Mergers and acquisitions present the way out. The emergence of dominant products designs has tended to shift the basis of competition. Companies that standardize based on product design attain production economies, making processes innovation and integration more important. Rivals who are unable to make this change or acquire core technology are forced to exit or be acquired (Mwaura 2004).

Scarce resources such as funds for research and development, or access to finance for expansion in capacity or human resources, inability to acquire new technology and uncertainty about patent protection has forced many biotechnology firms to merge with pharmaceuticals so that they can acquire the resources they need for new product development. Globalization has also broadened the scope of industry where competition

has been purely domestic. As government adopt common markets and economic integration, global sourcing and product development becomes easier. Companies that are too small to survive this environment have to merge or be acquired (Katuu, 2003).

Technology discontinuity leading to major change in an industry's technology, makes previous processes and know how obsolete. As a result, firms seeking solutions may opt for mergers and acquisitions in order to acquire new technology and cater for the changing needs (Walter, 2000).

The above triggers affect company's growth and survival. Many firms, when faced with such a scenario, opt for mergers and acquisitions. This enables the new entity to synergize and compete in emerging markets and deal with competitors new entrants (Katuu, 2003). According to Walter (2000), mergers and acquisitions take place across all business sectors. Pushing these high priced deals across borders is the universal indicator that industries will inevitably become more concentrated as world markets become global.

2.5 Role of Doctors in Pharmaceutical Marketing

Marketing of medication has a long history. The selling of miracle cures, many with little real potency, has always been common. Marketing of legitimate non-prescription medications, such as pain relievers or allergy medicine, has also been long practiced. Mass marketing of prescription medications was rare until recently (Cassels, 2005). However it has for a long time been believed that since doctors made the selection of drugs and mass marketing was a waste of resources particularly when specific advertisements targeting the medical profession would be cheaper and just as effective. This would involve advertisements in professional journals, and visits by sales staff to doctor's offices and hospitals. According to Misumi (2003), the key difference between marketing of prescription drugs and marketing of normal goods and services is one: with prescription drugs, the person who makes the purchase decision is not the person who pays the bill.

Doctors are perhaps the most important players in pharmaceutical sales (Gozner, 2004). They write the prescriptions that determine which drugs will be used by the patient.

Influencing the doctor is important to pharmaceutical sales. Historically, this was done with large pharmaceutical sales forces. A medium-sized pharmaceutical company may have a sales force of 200 representatives. The largest companies have tens of thousands of representatives who call upon doctors regularly providing information and free drug samples. However, economic pressures on the industry are causing pharmaceutical companies to rethink the traditional sales process to doctors and they are developing processes to influence the people who influence the doctors (Gozner, 2004). Since the 1980s new methods of marketing for prescription drugs to consumers have become important. Patients are far less deferential to doctors and will inquire about, or even demand, to receive a medication they have seen advertised on television (Cassels, 2005). The mass marketing to consumers of pharmaceuticals is controversial. Some feel it is better to leave the decision wholly in the hands of medical professionals. Due to these concerns, some countries impose limits on pharmaceutical mass marketing. In some it is required that advertisements for drugs end with a list of possible side effects, so that consumers are informed of both facets of a medicine.

Harder (2005) argues that as influential as advertising drugs to consumers may be, it represents only a small fraction of pharmaceutical companies' promotional efforts. In 2003, the industry spent $3.2 billion on consumer oriented marketing and $5.3 billion in 2003 on detailing; a term for the face to face promotional activities directed toward doctors, and distributed $16.4 billion worth of free samples that year (Donohue, 2004). The companies also spent $448 million on advertising in medical journals. A survey of doctors published in 2001 found that 92% had accepted free drug samples and other freebies, too, including meals, travel, and entertainment tickets (Harder, 2005). Studies show that such marketing and interaction with drug company representatives were associated with changes in doctor's prescribing patterns (Blumenthal, 2004). The drug companies spend this much on marketing to doctors than they do advertising to patients because they know their profits depend upon whether a doctor is motivated to prescribe the newest blockbuster.

2.6 Impact of the Mergers and Acquisitions on Consumers

Though literature on the impact of pharmaceutical mergers and acquisitions on consumers is rare and far between, one outcome of the new merged pharmaceutical firms is that they will offer incentives directly to doctors for prescribing drugs from their formularies. Putting aside for the moment the complicated issue of unapproved uses, hidden ties of doctors and drug companies have long been a controversial and might become more problematic in the face of vertical integration (Bosanquet, 1999). According to Favora, (2002) increased sales and market share is one of the drivers of pharmaceutical mergers and acquisitions. The newly formed companies, in a bid to increase sales and expand market share will therefore market directly to doctors with renewed aggressiveness that may even raise ethical issues. Since doctors have been the traditional consumers to whom prescription drugs were marketed, pharmaceutical companies have a history of furnishing doctors with gifts and other incentives such as research grants as a means of getting doctors to notice and prescribe their products and this is set to take a new dimension with the post merger companies.

Mergers and acquisitions result in synergy, which creates greater value by working together (Favora, 2002). Synergy in the pharmaceutical industry takes the form of shared know how, skills, procedures, resources and best practices. So how does this impact on doctors? To begin with, this will imply enhanced research and development and shorter periods for new product development in terms of the company's pipeline and product portfolio. Consequently, this should result in a greater variety of drugs and pharmaceutical products that should offer greater choice for doctors and patients, increase the flexibility of prescription, and add value to the medical profession. However, this may render some drugs obsolete, which may affect some patients negatively.

Pharmaceutical mergers and acquisitions have eliminated overlaps in research and development, production and marketing of products, created economies of scale in clinical trial and an enhanced sales representative coverage (Graves, 1993). Whereas such overlaps are a cost to the industry as a whole, and economies of scale an advantage, the risk of creating new outfits that are not receptive to doctors' needs and requirements may outweigh the gains made. Doctors may view the newly created companies as monopolies

out to control the market instead of providing medical solutions. This is one negative aspect of the merger and acquisition strategy as it results in very large organizations that may not be responsive to the doctors' needs. Gozner, (2004) argues that doctors are the most important players in pharmaceutical sales because they write the prescriptions that determine which drugs will be used by the patient. As a result, pharmaceutical companies have over the years cultivated a very close relationship with the doctors using promotional items, seminars, paid holidays and research sponsorships. However, with the large size companies that we are now seeing, such a relationship may be no more.

Pharmaceutical mergers and acquisitions are viewed by some as a form of vertical integration. According to Agarwal and Desai, (2001), this vertical integration is seen where pharmaceutical companies seek to monitor and control the activities of doctors. This control is best exhibited where pharmaceutical companies seek information about how patients take their medications, the effects of the drugs, patient health histories, and adverse drug interactions. The data can be used to generate information about drug efficacy, which, in turn, can be used to market drugs to physicians who prescribe drugs. Second, they can promote the manufacturer's comparable products that are offered at competitive prices thereby expanding the parent's customer base (McGahan, 1994). On one hand, this could greatly improve doctors' prescribing approaches. The down side is that this vertical integration may be seeking to control the exchanges that are critical to their survival (Agarwal and Desai, 2001). Doctors may feel like big brother is watching, and this may change their perception of mergers and acquisitions from one of partnership to one of control and domination. Since the doctor's prescribing habits will become available to anyone with access to the company database, such publicity could affect autonomy, discretion, and perhaps even have malpractice implications.

2.7 Summary of Literature Review

Perception is of great interest to marketers because of the influence it has on consumer decision making generally and on the way it affects antecedent factors such as reception and understanding of marketing communications. Companies must be very keen on how consumers and stakeholders perceive their products and the company as a whole. Pharmaceutical companies require insights of their consumer behaviours as critical inputs

in formulation of marketing mix strategies. Whilst they require utmost flexibility to create new offers, business models, distribution channels and infrastructure, customer focus will the driving force shaping pharmaceutical industry business models globally in the 21st century.

The best companies differentiate themselves from their competitors in ways their customers care about. They constantly work to understand their customers' needs by surveying the market's perception of their performance compared with the competition. They focus on providing high value services for the best and most profitable customers. They use their knowledge of the competitive environment and customer needs to create a consistent marketing message in all marketing collateral, proposals, presentations, and web sites to reinforce the features, benefits, and advantages of choosing the company over its competitors. Mergers and acquisitions create synergy, which is the ability of two or more units to generate greater value working together. Synergy can take the form of shared know how where partners benefit by sharing skills, procedures and pooling insights and human resources as a single unit. Value is created by leveraging on core competences and sharing best practices.

Doctors are perhaps the most important players in pharmaceutical industry sales. This is because they write the prescriptions that determine which drugs will be used by the patient. Influencing the doctor is therefore key to pharmaceutical sales. How they perceive the pharmaceutical companies' products, services, image and strategy becomes a major issue. A deep understanding of the customers' perception facilitates the designing of the marketing mix, market segmentation and product positioning.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

This was a descriptive survey aimed at determining the perception of pharmaceutical industry mergers and acquisitions by doctors in Kenya. Cooper and Schindler (2003) describe a study aimed at finding out who, what, where and how of a phenomenon as a descriptive study, which was the concern of the proposed research.

3.2 The Population

The population of interest in this study comprised of medical doctors in Nairobi. By focusing on doctors, the study was in a position to collect the views of those who have interacted with, or dealt with pharmaceutical companies regularly. They were therefore in a position to provide information about the latest trends in the pharmaceutical industry, particularly on the issue of mergers and acquisitions. According to the Kenya Medical Directory (2006/2007) there are 2062 medical doctors listed of which 1109 are in Nairobi. See Appendix 3

3.3 Sample and Sampling Design

A sample size of 100 doctors was considered fairly adequate and representative. Previous studies by Ronoh (2002) and Misumi (2003) have used a similar sample size. The respondents, medical doctors were chosen from randomly selected hospitals and clinics both in private and public practice. By selecting such doctors, the researcher was able to sample genuine respondents with the knowledge of mergers and acquisitions in the pharmaceutical industry. The study used convenience sampling and captured feedback from both male and female doctors.

3.4 Data Collection Method

Primary data source was used to collect data using a semi-structured questionnaire. The questionnaire was divided into two parts. Section A was designed to collect general details about the respondent while section B focused on perception of the respondent

towards mergers and acquisitions in the pharmaceutical industry. The drop-and-pick later method was used to collect data from the respondents.

3.5 Operationalization of the Variables

To operationalize the dimensions of mergers and acquisitions, the properties of the dimensions of the conceptual framework are expanded as shown in Table 1 below.

Table 1: Operationalization of the Variables

Broad Dimensions of Perception	Expanded Dimension	Relevance to perception of mergers	Relevant question
Satisfaction with service	Communication	Advertisement, promotion, update on new products, advisory services	6,13,15
	Interaction	Sales calls by company sales staff, follow up and feedback, continuous contact	5,
	Expected customer service	Knowledgeable, helpful staff, customized service, flexibility	14
Service quality	Tangibles	Promotional gifts and items, seminars, sponsorships, and grants	13,14
	Customer knowledge management	Sharing information and knowledge creation, dissemination and exploitation for marketing decisions	8
	Reliability	Delivery of value proposed, consistency and improvement	7,9,12,16
Benefits derived	Product	Knowledge of brands, new	10,12,14,15

	knowledge	products, latest discoveries and research	
	Market knowledge	Information about latest market and business developments	11
Mergers	Synergies	Two pharmaceutical companies forming a joint venture to take advantage combined R&D, Marketing, Technology, Finance and Distribution.	13, 14
Acquisitions	Competition. Takeover of one company by another.	Hostile or Share offer takeovers for Competitive advantage, and Synergies such those of mergers.	14,15,16

3.6 Data Analysis Technique

The data was analyzed using descriptive statistics. Data on section A of the questionnaire was analyzed using frequencies and percentages while data in section B was analyzed using mean scores and standard deviation to determine respondents' perception of mergers and acquisitions.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATIONS

4.1. Introduction

The data analysis was guided by the research objectives presented in chapter one. The body of the report only contains tables directly related to the objectives. The appendices, however, contain other useful information. Questionnaires are cross-analyzed where possible for ease of comparison of the study's results. Data in this study was summarized and presented in terms of means scores, graphs and proportions. Data in section A was analyzed using frequencies and percentages. Data in section B was analyzed using mean scores and standard deviation to determine doctor's perception of mergers and acquisitions.

The questionnaires were edited and coded after they were filled in. 37 questionnaires out of the 50 questionnaires were returned. The researcher considered only those questionnaires, which were fully filled. The response rate of respondents was 74%. The researcher deemed the response rate adequate and sufficient for the study for the purpose of data analysis.

4.2. Profiles of Respondents

The demographic characteristics of respondents are discussed in terms of qualification, areas of specializations and gender.

4.2.1. Qualification:

As the Table 2 shows, 78.4% of the respondents had MBCHB while 10.8% had M.B.B.S. The other has M.O, M.Sc, MPH and MMed Surgery (27% each).

Table 2: Qualifications categories

Qualifications	Frequency	Percent
MBChB	29	78.4
M.B.B.S	4	10.8
M.O	1	2.7
M.Sc	1	2.7
MPH	1	2.7
MMed Surgery	1	2.7
Total	37	100.0

4.2.2. Area of Specialization

From the Table 3, 43.2% of the respondents are General Practitioners. 29.7% are M.O's while 8.1% are specialists in Internal medicine. However, 5.4% did not mention Their area of specialization.

Table 3: Area of specialization

Area of Specialization	Frequency	Percent
General Practitioner	16	43.2
M.O	11	29.7
Internal Medicine	3	8.1
Surgeon	1	2.7
ENT	1	2.7
Paediatrician	1	2.7
Phys	1	2.7
Lecturer	1	2.7
No mention	2	5.4
Total	37	100.0

4.2.3. Gender

56.8% of the respondents are male while 43.2% are female. This implies that there were more male than females' respondents in the study as shown in the table below.

Table 4: Gender categories

Gender	Frequency	Percent
Male	21	56.8
Female	16	43.2
Total	37	100.0

4.2.4. Awareness of Pharmaceuticals in Kenya

According to the Table 5, medical representatives are the main source of awareness. 84% of the respondents came to know the pharmaceuticals through seminars and presentations. Brand names (57%), journals and newsletters (46%) and the internet (24%) were also mentioned by the respondents.

Table 5: Source of awareness

Source	Frequency
BASE	37
Medical Representatives	37
Seminars and Presentations	31
Recognized brand names	21
Journals, Newsletters and Periodicals	17
The Internet	9
Promotional drives	5
Recommendation by patients	4
Business Directory	2
Referral leads	2
Radio and Television advertisements	1
Recommendations by patients	1

4.2.5. Maintaining contact

Most respondents maintain contacts with the pharmaceuticals by having visits from sales representatives while 14% use the telephone. E-mail is used by 11% while the least preferred mode was letters at 5%.

Table 6: Doctors contact with Pharmaceuticals

Mode of Contact	Frequency
BASE	37
Visits from sales representatives	37
Telephone	5
E-Mail	4
Letters	2

Source: Data collected

4.3. Doctors Perception of Mergers and Acquisitions among Firms in the Pharmaceutical Industry in Kenya

A mean score of 4.5 was interpreted as indicating that respondents strongly agreed with that particular strategy. A mean score that is 3.5 or more but less than 4.5 indicate that respondents agreed. A mean score that is 2.5 or more but less than 3.5 would indicate the strategy was neither agreed nor disagreed. A mean score that is 1.5 or more but less than 2.5 would indicate that the strategy was disagreed with. A mean score that is less than 1.5 would indicate that the strategy was strongly disagreed with. A standard deviation < 1 signifies no significant variations while a standard deviation >1 indicates significant variations.

4.3.1. Perceived Image

Respondents strongly agreed that merged pharmaceutical companies in Kenya were profit and market oriented. They also agreed that the companies were domineering and arrogant (3.46). However, they disagreed with the fact that merged pharmaceuticals companies are caring partners (2.57)

Table 7: Perceived Image

Image	Mean	Std Deviation
Profit and market oriented	4.51	0.837
Domineering and arrogant	3.46	1.304
Indifferent to customers needs	3.32	1.248
Dedicated to research and development	3.22	1.357
Socially responsible	2.97	1.258
Caring partners	2.57	1.214
Average Mean / Std deviation	**3.18**	**1.20**

4.3.2. Perceived Importance of Merged Pharmaceutical Companies

This section presents the perceived importance of merged pharmaceutical companies in Kenya. A mean score of 4.5 was interpreted as indicating that the strategy was very important. A mean score that is 3.5 or more but less than 4.5 indicate that the strategy was important. A mean score that is 2.5 or more but less than 3.5 would indicate the strategy was neutral. A mean score that is 1.5 or more but less than 2.5 would indicate that the strategy was unimportant. A mean score that is less than 1.5 would indicate that the strategy was totally unimportant. A standard deviation <1 signifies no significant variations while a standard deviation >1 indicates significant variations.

Table 8: Perceived importance of merged pharmaceutical companies

Perceived Importance	Mean	Std Deviation
Product's curative power	4.97	0.164
Cost to patient	4.92	0.363
Brand recognition	4.14	0.713
Manufacturing Company's image	3.95	1.053
Product packaging	3.32	1.029
Patient's choice	2.43	1.015
Product advertising and promotion	2.35	1.160
Average Mean / Std deviation	**3.73**	**0.78**

Table 8 shows that product's curative power and cost to patient were perceived to be very important (4.97 and 4.92 respectively). Brand recognition (4.14) and company's image (3.95) were perceived to be important. This is also indicated by the low standard deviations implying that there was consensus among the respondents. Respondents were indifferent on product packaging (3.32). However, patient's choice (2.43) and product advertising and promotion (2.35) were perceived to be unimportant.

4.3.3. Perceived Roles played by merged pharmaceutical companies

This section presents the perceived roles played by merged pharmaceuticals companies in Kenya. A mean score of 4.5 was interpreted as indicating that the particular strategy was applied to a very large extent. A mean score that is 3.5 or more but less than 4.5 indicate that the strategy was applied to a great extent. A mean score that is 2.5 or more but less than 3.5 would indicate the strategy was applied to some extent. A mean score that is 1.5 or more but less than 2.5 would indicate that the strategy was applied to a small extent. A mean score that is less than 1.5 would indicate that the strategy was applied to no extent at all.

Table 9: Perceived roles played by merged pharmaceutical companies

Perceived Roles	Mean	Std Deviation
Continuous research on better more effective drugs	4.05	0.941
Research on emerging diseases and cures	3.46	0.900
Lobby governments to spend more on health	3.46	1.282
Social responsibility to deal with problematic health issues	3.05	1.026
Provision of cheaper affordable drugs	2.76	0.895
Downplay the profit motive to benefit society	1.86	0.822
Average Mean / Std deviation	**3.11**	**0.978**

From the Table 9, continuous research on better more effective drugs (4.05) was applied to a very large extent. Research on emerging diseases and cures, lobbying government to spend more on health was applied to a great extent. It was also found that social responsibility to deal with problematic health issues was applied to some extent by the

merged pharmaceutical companies. However, provision of cheaper affordable drugs and downplaying the profit motive to benefit society was applied to a small extent.

4.3.4. Whether Merging Enhances Research

When asked whether merging enhances research, 65% of the respondents said that it does while 32% said that it doesn't. However, 3% were not sure.

Table 10: Whether mergers enhance research

Response	Frequency
Yes	24
No	12
Maybe	1

4.3.5. Influence of Mergers and Acquisitions on Medical Doctors' Operations

This section presents the perceived influence of mergers and acquisitions on medical doctors' operations in Kenya.

Table 11: Influence of mergers fo mergers and acquisitions on medical doctors' operations

Influence of Mergers	Frequency
Wider product range	29
Better marketing and Promotion from the companies	7
Improved services from the companies	6
New more effective drugs	6
Less emphasis on role of Doctors	3

The major influence of mergers in operations of medical doctors was a wider product range (78%). Better marketing and promotion from the companies was considered by 19%. Others include improved services (16%), new more effective drugs (16%) and less emphasis on role of doctors (8%).

4.3.6. Perceived Impact of the Pharmaceutical Mergers

This section presents the findings of the perceived impact of the pharmaceuticals mergers in Nairobi. A mean score of 4.5 was interpreted as indicating that the strategy is likely to have a very high impact. A mean score that is 3.5 or more but less than 4.5 indicate that the strategy is likely to have a high impact. A mean score that is 2.5 or more but less than 3.5 would indicate the strategy is likely to have a fair impact. A mean score that is 1.5 or more but less than 2.5 would indicate that the strategy is likely to have a low impact. A mean score that is less than 1.5 would indicate that the strategy is likely to have a very low impact.

Table 12: Perceived impact of the pharmaceutical mergers

Perceived Impact	Mean	Standard Deviations
Wider product portfolio	4.43	0.867
Greater promotional efforts	4.05	1.053
Product sales growth	3.73	1.146
More free samples and gifts	3.51	1.325
Economies of scale and cost savings	3.46	1.386
New product development	3.30	0.909
Enhanced R & D pipeline	3.32	0.884
Intensified medical research	2.95	0.941
Enhanced R & D pipeline	2.51	0.961
Shorter discovery lead times	2.22	1.031
Average Mean / Std deviation	**3.35**	**1.05**

Findings indicate respondents perceived wider product portfolio as likely to have a very high impact of the pharmaceutical mergers in Nairobi. Greater promotional efforts, product sales growth and more free samples and gifts are some of the strategies likely to have a high impact. Strategies that were perceived to have a fair impact on the pharmaceutical mergers in Kenya included among others economies of scale and cost savings, new product development, enhanced R & D pipeline, intensified medical research and enhanced R & D pipeline. However, shorter discovery lead times were ranked low implying that the strategy is likely to have a low impact.

4.3.7. Perceived Appeal of the Mergers and Acquisition in the Pharmaceutical Industry

This section presents the findings of the perceived appeal of the mergers in the pharmaceutical industry. A mean score of 4.5 was interpreted as indicating that the strategy is high likely to be appealing. A mean score that is 3.5 or more but less than 4.5 indicate that the strategy is likely to be appealing. A mean score that is 2.5 or more but less than 3.5 would indicate the strategy is average. A mean score that is 1.5 or more but less than 2.5 would indicate that the strategy is unlikely to appeal. A mean score that is less than 1.5 would indicate that the strategy is very unlikely to appeal.

Table 13: Perceived advantages of mergers

Perceived Advantages	Mean	Standard Deviations
Less product overlaps	4.14	0.855
Lower operating costs	4.08	0.862
More aggressive marketing	3.97	0.957
New products	3.41	1.279
New innovative technology	3.30	1.151
Greater market orientation	3.03	1.067
Reduced research lead times	2.35	1.207
Average Mean / Std deviation	**3.47**	**1.05**

Table 13 shows that respondents considered less product overlaps, lower operating costs and more aggressive marketing as the perceived advantages of mergers and acquisition in the pharmaceutical industry. New product, new innovative technology and greater market orientation were found to be imperative. However, reduced research lead times were considered unlikely to appeal in the merger and acquisition.

Perceived Disadvantages of Mergers

This section presents the findings of the perceived disadvantages of mergers in the pharmaceutical industry. A mean score of 4.5 was interpreted as indicating the disadvantage as highly significant. A mean score of 3.5 or more but less but 4.5 indicates that the disadvantages is considered significant. A mean score of 2.5 or more but less than 3.5 would indicate that the disadvantage is of average significance. A mean score of below 2.5 but above 1.5 indicates low significance. Below 1.5, the perception is of no significance.

Table 14: Perceived disadvantages of mergers

Perceived Disadvantages	Mean	Standard Deviation
Unethical marketing and promotional tactics	3.43	1.425
Diseconomies of size and control	2.92	1.164
Lack of coordination between R & D and commercial viability	2.51	1.239
Inability to deal effectively with emerging market needs	2.41	1.443
Lower rate of technological development	2.35	0.857
Average Mean / Std deviation	**2.72**	**1.23**

Table 14 shows that unethical marketing and promotional tactics was perceived to be a likely disadvantage of mergers and acquisition in the industry. Others mentioned include diseconomies of size and control and lack of coordination between R & D and commercial viability. However, lower rate of technological development was not considered to be an unlikely disadvantage,

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

The objective of this study was to determine doctors' perception of mergers and acquisitions among firms in the pharmaceutical industry in Kenya. This chapter outlines the conclusions, recommendations and limitations for the study.

5.2. Discussions

Doctors are perhaps the most important players in pharmaceutical industry sales because they write the millions of prescriptions. How they perceive the pharmaceutical companies' products, services, image and strategy was the key issue in this study. Misumi (2003) argues that perception is based on self-image relevant to consumers. Marketers can utilize this in product positioning and management of marketing mix variables as well a building brand image. The findings show that apart from product's curative power and cost to patient, doctors perceived brand recognition and company's image to be very important. Ngahu (2003) also noted that external factors play an important role in influencing perception. This is confirmed by the doctors' perception in the findings that merged pharmaceutical companies in Kenya were profit and market oriented. They also agreed that the companies were domineering and arrogant, and disagreed with the fact that merged pharmaceuticals companies are caring partners.

Schiffman and Kanuk (2002) noted that in the marketing context, people perceive products and product attributes according to their own expectations. In the context of this study, doctors perceived continuous research for more effective drugs; research on emerging diseases and cures, lobbying government to spend more on health as important in merged pharmaceutical companies. They also felt that social responsibility to deal with problematic health issues was applied to some extent by the merged pharmaceutical companies thus influencing their expectations.

The findings show that the major influence of mergers in operations of medical doctors was a wider product range, than better marketing or promotion from the companies. Indeed doctors perceived wider product portfolio as likely to have a very high impact of the pharmaceutical mergers in Nairobi. Strategies that were perceived to have a fair

impact on the pharmaceutical mergers in Kenya included among others economies of scale and cost savings, new product development, enhanced R & D pipeline, intensified medical research and enhanced R & D pipeline. This confirms Schiffman and Kanuk insinuation that a marketer can identify. However the findings do not show doctors to perceive application of the marketing mixes to have a significant impact on their perception on what to prescribe, but rather their expectations on product range and cost to the patient.

According to Johnson and Scholes (2002) mergers are the results of organizations coming together voluntarily because they are seeking synergistic benefits. In this context the findings show these synergistic effects as less product overlaps, lower operating costs, new product, new innovative technology and greater market orientation. However, reduced research lead times were considered unlikely to appeal in the merger and acquisition. Therefore a deeper understanding of the customers' perception on the part of the merged companies would facilitate the designing of the marketing mix, market segmentation and product positioning.

5.3. Conclusions

The research concluded that merged pharmaceutical companies are product and market oriented. However it the product range and perceived lower costs that impact more on the doctors. They are also domineering and arrogant implying that the company's image was found not to tally with the public's expectations. Doctors perceived products curative power and cost to patients as very important. Product advertising and patient's choice were considered unimportant. Merged pharmaceuticals companies were found to apply continued research to better effective drugs and research on emerging diseases and cures. Doctors agreed that merged companies had less products overlaps and operating costs. However, unethical marketing and promotional tactics were found to be the main barrier to mergers thus affecting the doctors' decisions on prescriptions.

5.4. Recommendations

The researcher recommends that merged pharmaceutical companies should strengthen their service delivery. They should portray a picture of caring and being socially responsible, involvement in corporate social responsibility should be encouraged as this is

one of the ways into which they can involve themselves with the public and enhance their image positively.

The role of merged pharmaceutical companies is not widely known. It is recommended that as they strengthen their involvement with research, there is need for more advertising and promotion especially from the media. The merging and acquisition of pharmaceutical companies is seen as a way of discouraging product overlaps and lowering operational costs therefore their need to be more aggressive in marketing to bring new products in the market.

5.5. Suggestions for further research

This study was conducted at one point in time covered the doctors' perception of mergers and acquisitions among firms in the pharmaceutical industry in Nairobi. Since there many changes that occur over time as well as motives in mergers and acquisitions, the researcher recommends a longitudinal study over time to capture these factors.

5.6. Limitations of the study

The following were the limitations of the study. Firstly, the study only covered Nairobi and not all the doctors in Kenya were covered. Only a sample of 37 doctors was studied due to the response rate. Conclusions would probably have been different if the whole population was studied. Secondly, the study only covered the doctors' perception of mergers and acquisitions among firms in the pharmaceutical industry in Nairobi. This is a single factor among many challenges affecting pharmaceutical companies today. If a longitudinal study was to be conducted to cover doctors' perception over time, it would give more valid results.

REFERENCES

Abramson, J., (2004), **Overdosed America: The Broken Promise of American Medicine**, New York: Harper Collins,

Adcock, D., Halborg A., Ross C., (2003), **Marketing Principles and Practice**, London: Prentice Hall,

Agarwal, S., and Desai, S., (2001), *Unlocking the value of Big Pharma*, **The McKinsey Quarterly**, No. 2 pp 65-73

Blumenthal, D., (2004), *Doctors and Drug Companies*, **New England Journal of Medicine**, October 28, pp 104-120

Booz, A., (2001), *Delivering the Promise*, **Harvard Business Review**, July-August 2001,

Bosanquet, N., (1999), *European Pharmaceuticals 1993-1998: The New Disease of Innovation Phobia*, **European Business Journal**, *May*, pp 49-63

Chandhuri, P., Tabrizi B, (1999), *Capturing the Real Value in High Technology Acquisitions*, **Harvard Business Review**, September-October 1999

Chandler, A., (2000), *Inventing the Electronic Century*, **Business Week**, November 12th 2000

Clark, G., (1996), **Restructuring Corporate America**, New York: Dryden Press

Cooper, D., and Schindler, V., (2003) **Business Research Methods**, Heinemann

David, F., (1999), **The Concept of Strategic Management**, New Jersey: Prentice Hall

Day, R L., and Perkins, D S., (1992), Roots: *A Folk History of Consumer Satisfaction Literature*, **Journal of Consumer Satisfaction**, Vol. 5, pp. 223-7

Donohue, J.M., (2004), *Effects of Pharmaceutical Promotion Treatment Guidelines*, **Medical Care**, 42, December, pp 176-185

Eaton, G., Parish, P., (1976), *Sources of Drug Information Used by General practitioners*, **Journal of Royal College of General practitioners**, vol. 26, 1976, pp58-64

Favora, K., (2002), *Mergers and Acquisitions*, **Harvard Business Review**, September-October 2002

Gozner, M., (2004), **The $800 Million Pill**, University of California Press, Berkeley

Graves, S., (1993), *Innovative Productivity and Returns to Scale in the Pharmaceutical Industry*, **Strategic Management Journal**, 14, pp 593-605

Harder, B., (2005), *Dangerous Practices*, **Science News**, February pp 90-92

Hatfield, D., (1996), *The Effects of Corporate Restructuring on Aggregate Industry Specialization*, **Strategic Management Journal**, 17, 19896, pp 55-72

Hawkins, D., Beatty, S., (1989) *Subliminal Stimulation: Some new Data and Interpretation*, **Journal of Advertising**, 18 (3) 19898, pp 4-8

Hill, W C., Jones, G R., (2001), **Strategic Management Theory**, Boston: Houghton Mifflin

Johnson, G., Scholes, K., (2002), **Exploring Corporate Strategy**, New Delhi: Prentice Hall

Katuu, J M., (2003), **A Survey of Factors Considered Important in Merger and Acquisition Decisions by Selected Kenya Based Firms**, Unpublished MBA Thesis, University of Nairobi

Kibera, F., (1999), **Quality Customer Service**, Unpublished Paper, Department of Business Administration, University of Nairobi

Kotler, P., Armstrong, G., (1999), **Principles of Marketing**, New Delhi: Prentice Hall.

Maina, J M., (2003), **Factors that Determine Perceived Quality of Service in the Insurance Industry in Kenya: The Case of Nairobi Province**, Unpublished MBA Project, and University of Nairobi

McGahan, A M., (1994), *Industry Structure and Competitive Advantage*, **Harvard Business Review**, November-December, 115-124

Misumi, A., (2003), **Perception of Medical Doctors Towards Personal Selling, Practices of Medical Representatives of Pharmaceutical Firms in Nairobi**, Unpublished MBA Project, University of Nairobi

Mwaura, P., (2001), *Mergers and Acquisitions*, **Market Intelligence**, April 2001,

Narayanan, P., (1993), *Motives for Takeovers: An Empirical Investigation*, **Journal of Financial and Quantitative Analysis**, pp 69-74

Ndiho, J M., (2001), **An Empirical Investigation Into The Marketing Practices Within The Pharmaceutical Industry in Nairobi**, Unpublished MBA Thesis, University of Nairobi

Ngahu, J., (2003), **Factors Influencing Perception of Fortified Products: A Study of**

Thompson, A., Strickland, J., (1997), **Strategic Management: Concepts and Cases**, Boston: Irwin

Nairobi Residents, Unpublished MBA Project, University of Nairobi

Odhiambo, E., (1999), *The Future of the Pharmaceutical Industry in Kenya*, **The Pharmaceutical Society of Kenya Journal**, July 1999

Ongubo, J. N., (2003), **Determinants of Brand Loyalty for Prescription Brand Medicine by Doctors in Nairobi**, Unpublished MBA Thesis, University of Nairobi

Porter, M., (1980), **Competitive Strategy: Techniques for Analyzing Industries and**

Walter, P., (2000), *The Forest of Consolidation*, **Harvard Business Review**, September- October 2002

Competitors, Free Press, New York

Ronoh, K.W., (2002), **Direct Marketing; The Case of the Pharmaceutical Industry in Nairobi**, Unpublished MBA Thesis, University of Nairobi

Schiffman, L G., Kanuk, L., (1994), **Consumer Behavior**, Prentice Hall, Singapore

Scrip, Reports., (2004), **Pharmaceutical Mergers and Acquisitions: A Critical Analysis**, October 2004,

Sossion, B., (2003), **A Survey of Customer Perception of Telephone Provider's Value Propositions in Nairobi**

Táchira, C W., (2002), **Strategic Alliances in Pharmaceutical Drug Development; A Case Study of Three Strategic Alliances at Elli Lilly and Company,** Unpublished MBA Thesis, University of Nairobi

Yi, Y., (1990) *A Critical Review of Consumer Satisfaction*, in Zeithaml, V., (Ed.), **Review of Marketing**, Chicago: American Marketing Association, pp. 68- 123

Zeithaml, A., and Bitner, J., (2000), **Service Marketing: Integrating Customer Focus Across the Firm**, London: McGraw Hill

APPENDICES

APPENDIX I: LETTER TO THE RESPONDENTS

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
P.O. BOX 30197
NAIROBI

Dear respondent,

I am a postgraduate student in the school of business, university of Nairobi. I am conducting a management research project titled: Doctors' perception of mergers and acquisitions in the pharmaceutical industry in Kenya.

This is in partial fulfilment of the requirements for Master of Business Administration degree.

Kindly fill the attached questionnaire to the best of your knowledge. The information you give is needed purely for academic research and will be treated with strict confidence. A copy of the final report can be made available to you on request.

Your assistance will be highly appreciated. Thank you in advance.

Yours faithfully,

BETTY NYAGAH
MBA Student

MARGARET OMBOK
University Supervisor

APPENDIX II: QUESTIONNAIRE

Section A

1. Name: (optional) _____

2. Qualifications: _____

3. Area of specialization: _____

4. Gender: _____

5. How do you get to know about pharmaceutical companies in Kenya?

- ☐ Medical representatives
- ☐ Journals, newsletters and periodicals
- ☐ Radio and television advertisements
- ☐ The internet
- ☐ Recognized brand names
- ☐ Business directory
- ☐ Recommendation by other doctors
- ☐ Recommendation by patients
- ☐ Seminars and presentations
- ☐ Referral leads
- ☐ Promotional drives

6. In what manner do you maintain contacts with the pharmaceutical companies?

- ☐ Letters
- ☐ Telephone
- ☐ E-mail
- ☐ Visits from sales representatives

Section B

7. How do you view the mergers and acquisitions in the pharmaceutical industry?

Favourably ( )

Adversely ( )

No effect (indifferent) ( )

8. On a scale of 1 to 5 please indicate the extent to which your operations are influenced by mergers in the pharmaceutical industry in Kenya, where 1- Very Large Extent, 2- Large Extent, 3 -Small Extent, 4 -Very Small Extent, 5- No Extent

1	2	3	4	5
( )	( )	( )	( )	( )

9. In your opinion, what best describes how you perceive the image of merged pharmaceutical companies in Kenya? 1- Strongly agrees, 2 – Agree, 3 – Neither, 4 – Disagree, 5 – Strongly disagree

	1	2	3	4	5
Domineering and arrogant	( )	( )	( )	( )	( )
Caring partners	( )	( )	( )	( )	0
Indifferent to customers' needs	( )	( )	( )	( )	( )
Socially responsible	( )	( )	( )	( )	( )
Profit and market oriented	( )	( )	( )	( )	0
Dedicated to research and development	( )	( )	( )	( )	( )

10. In prescribing medicines to your patients, what is the relative importance of the following factors when companies merge in the pharmaceutical industry, where: 1 – Very important, 2 – Important, 3 – Neutral, 4 – Unimportant, 5 – Totally unimportant

	1	2	3	4	5
Manufacturing Company's image	( )	( )	( )	( )	( )
Brand recognition	( )	( )	( )	( )	( )
Cost to patient	( )	( )	( )	( )	( )
Product packaging	( )	( )	( )	( )	( )
Product advertising and promotion	( )	( )	( )	( )	( )
Product's curative power	( )	( )	( )	( )	( )

Patient's choice	( )	( )	( )	( )	( )

11. In your own opinion does merging of pharmaceutical companies enhance research in the industry?

Yes ( ) No ( )

12. To what extent do you believe the following factors best describe the roles played by merged pharmaceutical companies in Kenya? 1- Very Large Extent, 2- Large Extent, 3 -Small Extent, 4 -Very Small Extent, 5- No Extent

	1	2	3	4	5
Provision of cheaper affordable drugs	( )	( )	( )	( )	( )
Research on emerging diseases and cures	( )	( )	( )	( )	( )
Continuous research on better more effective drugs	( )	( )	( )	( )	( )
Lobby governments to spend more on health	( )	( )	( )	( )	( )
Social responsibility to deal with Problematic health issues	( )	( )	( )	( )	( )
Downplay profit motive to benefit society	( )	( )	( )	( )	( )

13. In your opinion, how will the mergers and acquisitions influence your operations as a medical doctor?

☐ Better marketing and promotion from the companies

☐ Improved services from the companies

☐ Wider product range

☐ New more effective drugs

☐ Less emphasis on role of doctors

14. What is the likely impact of the pharmaceutical mergers on the following areas?

Where: 1 – Very high, 2 – High, 3 – Fair, 4 – Low, 5 – Very low

	1	2	3	4	5
Product sales growth	( )	( )	( )	( )	( )

New product development	( )	( )	( )	( )	( )
Economies of scale and cost savings	( )	( )	( )	( )	( )
Shorter discovery lead times	( )	( )	( )	( )	( )
Greater promotional efforts	( )	( )	( )	( )	( )
More free samples and gifts	( )	( )	( )	( )	( )
Intensified medical research	( )	( )	( )	( )	( )
Wider product portfolio	( )	( )	( )	( )	( )
Enhanced R & D pipeline	( )	( )	( )	( )	( )
Greater emphasis on ethical issues	( )	( )	( )	( )	( )

15. Below is a list of likely advantages of mergers and acquisitions in the Pharmaceutical industry. Please indicate the likelihood of the factors using ratings

Where: 1 – Highly likely, 2 – Likely, 3 – Fair, 4 – Unlikely, 5 – Very unlikely

	1	2	3	4	5
New products	( )	( )	( )	( )	( )
Lower operating costs	( )	( )	( )	( )	( )
Reduced research lead times	( )	( )	( )	( )	( )
New innovative technology	( )	( )	( )	( )	( )
Fewer products overlaps	( )	( )	( )	( )	( )
More aggressive marketing	( )	( )	( )	( )	( )
Greater market orientation	( )	( )	( )	( )	( )

16. Pharmaceutical industry mergers and acquisitions may also lead to disadvantages. Below is a list of likely disadvantages. Please indicate the likelihood using ratings

Where: 1 – Highly likely, 2 – Likely, 3 – Fair, 4 – Unlikely, 5 – Very unlikely

	1	2	3	4	5
Diseconomies of size and control	( )	( )	( )	( )	( )
Lack of coordination between R & D and commercial viability	( )	( )	( )	( )	( )

Inability to deal effectively with emerging market needs	( )	( )	( )	( )	( )
Lower rate of technological development	( )	( )	( )	( )	( )
Unethical marketing and promotional tactics	( )	( )	( )	( )	( )
Ignoring the needs of less affluent market segments	( )	( )	( )	( )	( )

THANK YOU FOR YOUR COOPERATION

APPENDIX III: MEDICAL SPECIALISTS ALPHABETICAL INDEX

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Arama, SimonOgari (Dr)
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Chokwe, ThomasM. (Dr)
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Gumbe, AliceNafula (Dr)
Kabetu, CharlesEdward (Dr)
Kahuho, S. K (Dr)
Kisia, A. K. L. (Mr)
Moniz, Gerald. C. (Dr)
Nene, ManoharLaxman (Dr)
Ng'ang'a, NoahWaswa (Dr)
Ngumi, ZipporahW. W (Dr)
Njoroge, G. E (Dr)
Omondi, C. J. N. (Dr)
Opere, HezraOdondi (Dr)
Otieno, P. (Dr)
Parikh, RajanM. (Dr)
Patel, DivyaJ. (Dr) (Mrs)
Patel, V (Dr) (Mrs)
Rajdev, N. C. (Mrs) (Dr)
Rajula, C. M (Dr)
Sangale, Lorna (Dr)
Shah, GeetaP. (Dr) (Mrs)
Shah, Sarojna (Dr) (Mrs)
Sheth, K (Dr)

EMBU
Kaara, Bernard (Dr)

KAKAMEGA
Miima, JohnHenry (Dr)

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NdunguA. WDr.
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Etyang, F (Dr)
Kumar, NehraSuresh (Dr)

KITUI
Ngata, DavidJ. (Dr)

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Athman, B. K. (Dr) (Ms)
Kabutu, J. T. (Mr)
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