PHARMACEUTICAL PRODUCERS AND USERS PERCEPTIONS OF
THE ROLE OF DISTRIBUTORS IN THE INDUSTRY

BY

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A MANAGEMENT PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS
ADMINISTRATION FACULTY OF COMMERCE UNIVERSITY OF NAIROBI.

2006
DECLARATION

I, the undersigned, declare that this is my original work that has not been submitted to any other college, institution or university other than the University of Nairobi for academic credit.

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To Pamela, Mary and Lydia Chege:

Thanks for being my strong cheer leaders and supporters

while I was undertaking the MBA course
ACKNOWLEDGEMENT

While it is not possible to thank everyone who inspired or assisted me in one way or the other in undertaking this work, I wish to recognise the following:

My Supervisor, Jackson Maalu, for his professional guidance, insightful thoughts, and wealth of experience in the field of strategic management from which I have benefited.

I am also grateful to my dear wife, Pamela for her patience and support during the many nights I had to come home late from my studies and had to take over some of my parental duties.

I also appreciate my two lovely daughters Wahura and Wangeci who chose to understand a student father, encouraged me and checked my grades regularly to make sure I was on track and also burnt the midnight oil with me as they faced their own academic challenges.

I thank my faculty members and my colleagues in MBA Executive programme who interacted with me and spent valuable time discussing and criticising this work to make it better.

There are others who also encouraged me not mentioned here – To You ALL; your valuable contribution and support in one way or the other in the course of this Study was greatly appreciated, accept my gratitude.
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ABSTRACT

As organisations streamline their production and internal processes, the next opportunity for improvement is through better coordination and networking with their suppliers and customers through the supply chain. Much of the cost and value creation occur in the supply and distribution chain. The purpose of value chain is to attain full and seamless interaction among stakeholders to create a win-win situation. Identification and analysis of cost of activities and the roles played in a business processes from production to sales has great potential in unlocking value.

This study focuses on the supply and distribution of Pharmaceutical products in Kenya. The research work was to investigate the pharmaceutical producers' and end users' perceptions on the role and value contributed by distributors in the provision of medical supplies in Kenya using the Value chain concept.

Players in the medical supply chain in Kenya are spread over the whole country. The population consisted of two groups; the producer and end users each relatively homogeneous. With a constrained budget and time limitations, a representative sample from each stratum of the population was used. To ensure adequate representation different, stratified probability sampling method was used in selecting the sampling units from each of the sampling frame. The sample size took account of the dispersion of the population, the desired level of accuracy and interval range. A structured questionnaire was used to collect primary data. Secondary data was obtained from the company's management information system and printed records. Analysis of the data was done by commercial SPSS software and Microsoft Excel spreadsheet.

One of the key findings from the study was that 76% of the producers channelled out up to one half of their businesses through the distributors while 24% relied on distributors to sell
more than half of the products manufactured or imported. It also emerged that half of the users sourced more than one half of their stocks from distributors. This finding indicates heavy reliance on the distributor to put through products in the supply chain.

The study also found out that both producers and users were most satisfied, mean 3.80 and 3.45 respectively on a scale of 1-5, with the distributors’ ability to promptly deliver products upon order placements. The producers were least satisfied (mean 2.17) with the amount of discounts and commissions demanded by the distributors.

It was also found out users were least satisfied (mean 2.93) with distributors’ lack of value adding services such as product information/support and marketing. Further, ownership of products remained in the producers until they were sold. Thus any losses resulting from expired or unsold products were fully incurred by producers.

The study recommended that their operations especially with producers be guided by professionally done contracts to rule out exploitation or intimidation. It was also recommended that the government gives more incentives to local manufacturers as boost to local production of pharmaceutical products.
CHAPTER ONE: INTRODUCTION

1.1 Background

An industry is made up of many players whose number is determined by the attractiveness of the industry in a sustained growth and profitability. The players are faced by internal and external environmental factors that affect their survival, prosperity, and profitability. They develop strategies that assist them cope with changes that are precipitated by environmental factors. Grant (2002) and Porter (1980) advance the view that strategies developed act as the link between the firm and its environment while Thomson and Strickland (1988) posit that a good strategy needs to be well matched to the firms’ external environment.

As organizations successfully streamline their production and internal processes, the next opportunity for improvement is through better coordination with their suppliers and customers. The costs of poor coordination can be extremely high (Johnson and Pyke, 2000). Whereas the cost of production has reduced and internal processes perfected, what is being saved may be lost in distribution. According to De Villiers (1999), the high costs associated with logistics activities and the increasing concern for customer satisfaction have resulted in management awareness of the growing importance of developing strategies for distribution channels and value chains as part of the overall strategic business planning process.

Management of value chains has generated much interest in recent years for a number of reasons. Many managers now realize that actions taken by one member of the chain can influence the profitability of all others in the chain. Johnson and Pyke (1999) note that
organisations are increasingly thinking in terms of competing as part of a supply chain against other supply chains, rather than as a single firm against other individual firms.

1.1.1 The Concept of Strategy and Value Chain

The purpose of business organisations is to create and deliver value to customers and profit to shareholders (Ansoff and Macdonnel, 1994). An organisation's strategy ensures that it has a formula not only to survive in the market place but also to increase its profitability and market share in the long term. Needless to say that the overriding need for strategy is to give the organisation a competitive edge through configuration of its resources and capabilities to match the environment. The long term success of business strategies adopted is determined by the extent to which they provide best value in the eyes of stakeholders (Johnson and Scholes, 2003).

The term value chain was used by Porter (1985) to describe the activities an organisation performs and links them to its competitive position. Drury (2000) sees value chain from an economist point of view as a change in management behaviour and an organizational strategy for increasing customer satisfaction and managing costs more effectively. Chase et al (2004) sees it as a total systems approach from raw material suppliers through production to final customer aimed at reducing defects, maintaining optimal inventory levels, shorter production lead time, and improved customer satisfaction in terms of cost efficiency, quality and delivery. Value chain includes all business processes that put the product in the hands of end users Ayers, (1999). Johnson and Scholes (2003) views value chain analysis as a valuable tool for understanding how value is lost or created in a business.
Much of the cost and value creation occur in the supply and distribution chain. An understanding of the whole value creation process is important in helping managers identify where and how value may be created within the organisation and in the wider value network (Johnson and Scholes, 2003). The ability of an organisation to influence the performance of other organisations in the supply chain may be crucially important competence and a source of competitive advantage (Johnson and Scholes, 2003).

The purpose of value chain is to attain full and seamless interaction among stakeholders to create a win-win situation. This has great potential in unlocking value Ayers, (1999). It involves identification of value chain in business processes, communicating them, analysing them, and continuously improving them. Johnson and Scholes (2003) add that it is the cost of the activities, described as key internal factors by Pierce and Robinson (2002), and the value they deliver that determines amount of value created.

The key assumptions of value chain are that organisations are much more than a random compilation of machines, money and people (Johnson and Scholes, 2003). These resources are of no value unless they are deployed into activities and organised into routines and subsystems that ensure products or services are produced and are valued by the customer. Optimisation of the strategic capability of an organisation entails identification of separate value activities and analysing value contributed by each activity.

Competitive advantage is critical to the success of a business. According to Johnson and Scholes (2002), value creation centres on the amount that buyers are willing to pay for a product or service. In his article “Where is The Real Value”, Maclean (2003) adds that a
business is profitable and thus competitive if the value it creates exceeds the costs of performing the "value activities". In his research study on chain management, Mwangi (1999) concluded that the concept has become part of the business strategy of forward looking Kenya businesses especially the multinationals.

Value chain analysis enables the firm to identify and concentrate on its core competences and outsource those functions and resource where it has no distinctive competences (Porter, 1985). Industry is the arena in which competitive advantage is won or lost (Porter, 1985). Johnson and Scholes (2003) define distinctive competencies as those resources organizations possess that are relatively unique, provide a valuable service to customers and are difficult to copy.

Creating value along the supply process primarily relate to the position of company in the supply process (Maclean, 2003). He asserts that resource companies positioned at the beginning of the chain and companies interfacing with the customers at the end of the chain typically have the greatest potential for creating value. Porter (1985) identifies supply chain coverage and quality, strengths of the supply chain relationships, and the ability to service the supply chain as three areas of competitor strengths and weaknesses.

Value chain strategies are among the most critical strategies facing management as they affect the distribution and supply systems adopted. The value chain strategies are derived from corporate strategy to complement and support the strategic intent of the organisation. These strategies have developed into one of the key corporate objectives of maximising profitability by means of optimising the balance between customer service levels and total logistics costs (Johnson and Pyke).
1.1.2 Overview of Pharmaceutical Industry in Kenya

Bucklin (1966) defines a distribution channel as a set of institutions that perform all the activities utilized to move a product and its title from production to consumption. De Villiers (1999) sees distribution channel as *the route along which a product and its title flow from production to consumption.* It is the trading channel strategy that a product follows after manufacturing to the point of consumption. It is in this trading channel that supply chain collaborative relationships are formed.

Marketing systems intermediaries include the distributors, wholesalers, brokers, sales agents and representatives. They allow producers to realize the benefits that only large organisations may be able to support (Kotler). Johnson and Pyke (1999) contend that channel members offer contacts, experience, specialization, and economies of scale to organisations that cannot offer these attributes on their own. Kotler (1999) on the other hand argues that the functions of channel members have three things in common - they use scarce resources; they can often be performed better through specialization; and they are shiftable among the channel members. He adds that the issue as to who should perform various tasks along the chain process is one of relative efficiency and effectiveness.

The concept of value chain has been applied in many industries such as manufacturing, computers, food processing and between intra industries. Chase (2004) cites the example of Dell Computer Company that skips the distribution and retail steps typical of manufacturing company which has become extremely efficient and the benchmark of the industry. In the pharmaceutical industry the concept is important in identifying the
various roles played by the stakeholders particularly the distributors and how they increase value to the patient

The pharmaceutical industry can be categorised into two branches, the Human and Veterinary. For purposes of this study the focus will be on human drugs, the latter can be a basis for another study. Human drugs can be categorised as ethical drugs that are only obtained through a prescription and over the counter drugs that are not considered dangerous but can be sold and bought by anyone. They are further classified into original branded products, from the patented company that discovered the molecule, and generics.

The provision of health commodities in Kenya involves a complicated supply chain with numerous stakeholders, explains Dana and Kizett (2003). The Pharmacy and Poisons Board is the Drug Regulatory Authority established in 1989 (Government of Kenya, 1989) under the Pharmacy and Poisons Act, Chapter 244 of the Laws of Kenya. The Board regulates the Practice of Pharmacy and the Manufacture and Trade in drugs and poisons. Its mission is to regulate and control pharmaceutical services to ensure accessibility, safety, efficacy, and quality of human and veterinary medicines and medical devices (Pharmacy and Poisons Board)

A typical structure of pharmaceutical distribution chain in Kenya consists of the Producers, Distributors, and the End users. Producers include local drug manufacturers and direct importers who either manufacture locally or import directly under contract from companies manufacturing outside the country. The distributors include the
middlemen while the end users are categorized as hospitals, nursing homes, clinics, retail chemists and pharmacies.

Kenya pharmaceutical industry is dynamic and challenging where change is no longer slow and predictable but rapid and unpredictable (Musau 2000). Economic impact of the era of globalisation, liberalization and conditional ties imposed by IMF and World Bank has contributed to the exit, downsizing and relocation of large drug manufacturing companies such as Rhone Poulenc, Aventis Pasteur, Hoechst, and Pfizer Kenya (Mwaura, 1999). Majority of drugs are imported as finished products. There is proliferation of local and foreign pharmaceutical distributors marketing pharmaceutical products thereby increasing in the number of brands in the market. Customers have become more educated, inquisitive, demanding and interested in health care thereby demanding ever improving levels of service in terms of reduced costs, improved quality, reliability, delivery, dependability and variety for freedom (Mwaura, 1999).

Pharmaceutical products marketed in Kenya have become increasingly complex and specialized. Professionalism, competency, price, and convenience were the most important factors determining pharmacy patronage in Kenya (Thuo, 1999) while customers service was considered the most important factor attracting and maintaining customers (Ndubai, 2003). Study carried out by Ngeera (2003) revealed that challenges faced by pharmaceutical industry in Kenya include competition, large number of brands in the market, undercutting on prices, dispensing medical practitioners, security and high personnel costs.
1.1.3 **Nature and Importance of Perception**

Perception is the psychological process by which individuals select, process, organise and interpret sensory information. According to the 1996 edition of Webster’s New Encyclopaedia Dictionary, to perceive is either to attain awareness or understanding through the senses as a result of stimulus in the environment activating an appropriate sense organ. When one perceives something he becomes aware of it especially through the eyes or the mind. Luthans (1992) explains that perception is a unique interpretation of the situation and not an exact recording of it, which may or may not reflect the reality. Blum (1977) explains that a perceptual response is not uniform from individual to individual or within the same individual across time.

Once triggered by sensual stimulus, the perception process systematically proceeds through the evaluative criteria. Ngesa (1990) explains that the evaluative criteria will be as a result of the individuals’ internal and external environments. Internal Environment would include psychological and personal factors such as motives, attitudes and learned behaviour. They differ from one individual to the other owing to a person’s cultural background, upbringing, education, location, personality etc. The external environment includes those factors arising from influential person or reference groups that may be membership or non membership group. Membership group are various groups that an individual belongs to such as occupational, age, social class, workmates etc. Non membership groups are those groups the individual aspires to be (Kiilu 2003).

The significance of perception in organisations lies on the fact that people act largely on the basis of their perception which may or may not reflect the reality. An individual
perceptual world may constitute the reality to him hence the world presents different realities to different people depending on the different ways they perceive it. The things people take for a fact are sometimes mere perceptions.

1.2 Statement of the Problem

Members of the Kenya Pharmaceutical industry hold various perceptions regarding the role of the distributor. Some perceive the distributors as adding more to cost than value along value chain while others hold a different view. Their perceptions do not necessarily have to be real.

Some producers might question the capability of distributors to unlock value and in so doing improve on margins (Peter and Parson, 2003). In studying such organizations the scholars argue that if only producers could market directly to the end user, the operating costs plus extra margins charged by the distributor would be avoided. On one hand producers might appear to lose control by placing the destiny of their organisation in the hands of an intermediary and on another, distributors may be viewed as a valuable chain member who performs the role of direct marketing, bulk breaking, inventory management, debt collection, promotion, and distribution, whose value can be enhanced.

End user group also hold various perceptions on the role of the distributor. To some the distributor does not offer any medical advice or technical expertise but only act as intermediaries to broker the business between the manufacturers and the final customers. Patients often deny the value added by distributors (Kaplinsky, 2000). They look at the distributor as one area in the logistics from which to squeeze out costs (Peter and Parson, 2003).
Pharmaceutical distributors like other logistics companies are sandwiched between very complex environment served by commodity providers and a very demanding market (Peter and Parson, 2003). Do the producers and users of pharmaceutical products only see the distributor as a cost addition? Is there a place for the distributor in the pharmaceutical industry and should their role be repositioned and redefined in the supply process?

1.3 Objectives

The objective of this study was to establish the pharmaceutical producers and users' perceptions on the role and value contributed by pharmaceutical distributors in the provision of medical supplies in Kenya using the Value chain concept.

1.4 Significance of the Study

The following stakeholders will find the study important:

a) Players interested in starting a pharmaceutical distributorship will find the study a valuable insight in understanding the dynamics of business

b) Potential pharmaceutical manufacturers who would wish to invest in the industry will find the study a good base in selection of distributors

c) Scholars wishing to carry out further studies in the industry

d) Policy makers and practitioners in the industry
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the review of literature related to this research. This was done with a view to collecting views, perspectives and opinions on the concept of supply chain. The review depended on theoretical literature from books, research papers, magazines and information from the Internet.

2.2 Value Chain Concept

Johnson and Pyke (1999) observe that much publicity and discussions is being made of value chain integration across the extended enterprise. Toma and Bauma, (1998) see business integration as a broader concept that not only happens within the organisation, but also with supply chain partners, upstream and/or downstream within the supply chain, for the benefit of all the supply chain partners. According to Capocino (1997) the extended enterprise consists of more than two businesses whose financial success depends significantly on each other. The two businesses are subsequently all exposed to common risk and can, in fact, not achieve success in isolation.

Kaplinsky and Morris (2000) assert that in the real world, value chains are much more complex than the description above. They argue that in addition to the main links, typically intermediary producers in a particular value chain may feed into a number of different value chains and that it is rather unusual that a single company performs all activities from product design, production of components, and final assembly to delivery to the final user by itself. They perceive most organizations as elements of a value system that covers the whole value system in which the organization operate.
Value chains are commonly found on the distribution or the outbound side of business, but can also be found within businesses, between business units, and also on the inbound side of business. The scope of this study will focuses on the outbound or distribution side of the extended enterprise focusing on the pharmaceutical industry.

Several research studies done locally have concentrated on the inbound side of the business (Kirui, 2001), within business (Sholei, 1999), and on internal production processes between business units. Mulaki (2000), Ondieki (2000), Masese (2001) Koech (2001), and Odeny (1987) made various studies that have been on part or section of value chain, corporate strategy, marketing strategies, and specific best practices. None of these studies has been on the assessment of contribution made by the players in the supply chain focusing on the pharmaceutical industry.

In a study on Globalisation and Economic Restructuring in Africa, Raikes et al (2000) argued that industrial commodity chains encompass centrally coordinated but internationally dispersed production of many of the activities along the chains of given commodities or manufactured products. This compounded the work of Gereffi (1994) on industrial commodity chains with focal distinction between producer driven and buyer driven chain that has attracted attention since the early 1990s. The various studies conclude that emergence of Global Commodity Chain is seen to be related to the international extension and the externalization of manufacturing chains previously internalized both within the organizational boundaries of vertically integrated corporations and, to a large extent, within specific nation states.
In a research study on value chain, Recklies (2001) argues that within a complete value system, organizations realize a certain amount of profit defined as the difference between price to final customer and all costs incurred with the production and delivery of the product. Profitability depends on their ability to manage the linkages between all activities in the value chain. Organizations must be able to deliver a product or service for which the customer is willing to pay more than the sum of the costs all activities in the value chain. Each member of the chain uses its market position and negotiating power to get a higher proportion of this margin. Members of a value chain therefore need to cooperate to create synergy and improve their efficiency in order to reduce costs so as to achieve a higher margin for the benefit of all. In their contribution to this debate, Kaplinsky and Morris (2000) add that the amount of income received through the chain activities is a factor of the level of contribution from each member, which also determines the sharing ratio among members.

Business organizations can contribute value in the supply process in various processes. A key capability to contribute value is the capacity to be innovative to ensure continuous improvement in product and process development. Hamel and Pralahad, (1994) argue that for the firm to have a competitive edge, the rate of innovation has to be faster than that of the competitors in the industry and firm need to focus on its core competences. Core competencies are those attributes which provide value to the final customer, are relatively unique in the sense that few competitors possess them and are difficult to copy (Johnson & Scholes, 2003). Peter and Parson (2003) argue that unlocking value requires multiple skills, the trust of customers and the willingness and ability to manage risks.
The capacity to innovate to create value arises from concentration of the core competences and outsourcing those functions that do not meet the three criteria. Kaplinsky (2000) argues that corporate profitability in the long run cannot be sustained by control over the market but through the development of dynamic capabilities, which arise as a result of creating new combinations or conditions including the capacity to reconfigure what the firm has done in the past. This may be achieved through the process reengineering of internal processes that involves assessment of internal systems to identify strengths and weaknesses aimed at increasing the efficiency. Nadvi and Halder (2002) identify quality upgrading, low cost competition and development of medical technology as areas of divergent trajectories between the rich and poor partners in a chain.

In his study Kaplinsky (2002) adds that an organisation could also add value through product upgrading that involves introduction of new products or improving old products faster than rivals. This involves changing new product development processes both within individual links in the value chain and in the relationship between different links. It may also be done through functional upgrading by changing the mix of activities conducted within the firm, such as outsourcing logistics functions in drug distribution or moving the locus of activities to different links in the value chain.

2.3 Development of Value Chain Concept

Value chain has attracted much interest and debate in academic, consultancy, and managerial circles. In his research, Kaplinsky (2002) observes that the genesis of value chain may be traced to Adam Smith who observed that the division of labour was determined by the extent of the market. Small-scale markets allowed for little
specialization where the entrepreneur undertook all the different tasks that were required in making the final product. As the market expanded, Kaplinsky (2002) argues that specialization of task became economical where increasing scale meant that the work process could be subdivided into an increasing number of workstations performing different activities.

Taylor’s (1881) theories on work organization aimed at increasing the efficiency of each of workstations through “scientific management” procedures. This approach towards production organization dominated from the 1890s until the late 1970s. Lawrence Miles restructured it in 1972. Increasingly, the approach towards intra-plant and inter organizational production organization shifted towards a more systemic focus in order to reduce on system inefficiencies. This systemic approach towards intra-plant and intra-firm efficiency began to spill over into thinking about inter-firm linkages during the 1980s. The links in a basic model of value chain is as follows:

**Figure 2.1: Basic Production Model**

![Basic Production Model Diagram]

*Source – Operations Management for Competitive Advantage*
Michael Porter (1985) restructured the concept in the mid 1980s. He identified primary and support activities as two important elements of modern value chain analysis. The primary activities are directly concerned with the creation and delivery of a product or service. Here, he drew the distinction between five different stages of the process of supply as inbound logistics, operations, outbound logistics, marketing and sales, and after sales service. Each of the primary activities for the transformation of inputs into outputs is linked to support activities of strategic planning, human resource management, technology development and procurement the firm marshals to complete the task. The system comprises of interdependent activities in which performance of one activity affect the performance of other activities, as presented below;

*Figure 2.2: Porters Supply Chain Model*

*Source – Exploring Corporate Strategy*
Porter (1985) maintained that linked activities and processes in the chain are especially important to competitive pressures. He emphasized that in any market, operations improvement can only go so far. Ayers (1999) adds that while production technology can be duplicated on isolated activity, linked activities are difficult to duplicate. This uniqueness leads to invulnerability.

2.4 Weaknesses of Value Chain Concept

The primary functions as we know them today need not be performed within a single link in the chain, but may be provided by other links such as outsourcing, partnerships, networking, and business web with other firms. Don Tapscott (2000) argues that business webs is any system composed of suppliers, distributors, service providers, infrastructure providers, and customers that use the internet for business communications and transactions. He adds that business webs across industries in which each business focuses on its core competences, are proving to be more supple, innovative, cost efficient, and profitable than traditional vertically integrated competitors. Porter (1985) refers to these essentially intra-link activities as the value chain. According to Dagmar (2001), it is unusual that a single company performs all activities from product design to delivery to the final user. He argues that most often organizations have become elements of value systems or supply chain. Hence value chain analysis should cover the whole value system in which the organization operates.

Porter (1985) complemented the concept of intra-link functions with the concept of the multi-linked value chain, which he refers to as the value system. The value system basically extends his idea of the value chain to inter-link linkages. The elements in Porter’s analysis are considered by modern value chain analysis. The primary issue is one
of terminological confusion, a problem that was exacerbated by Womack and Jones (1987) in their influential research work on the concept of lean production. They similarly use the phrase *value stream* to refer to what most now call the value chain.

A similar concept, in some respects to the value chain, is that of the *Filière*, whose literal meaning in French is that of a “thread” (Raikes et al, 2000). The *filière analysis* is applied overwhelmingly to agricultural commodities and without any specific time frame. The concept is used to describe the flow of physical inputs and services in the production of a final product or a service. The concept is essentially no different from Porters Value Chain or Womack and Jones’ Value Stream. The early *filière analysis* emphasized local economic multiplier effects of input-output relations between firms and focused on efficiency gains resulting from scale economies, transaction and transport costs among other variables. It factored in the contributory role of public institutions into what were essentially technical quantitative relationships, thereby bringing it analytically closer to contemporary value chain analysis. Raikes et al (2000) argues that *filière analysis* has been applied generally to the domestic value chain, thus stopping at national boundaries.

The contemporary concept of *global commodity chains*, introduced by Gereffi (1999) has also been used to describe the value chain. His contribution has enabled important advances to be made in the analytical and normative usage of the value chain concept, particularly because of its focus on the power relations, which are imbedded in value chain analysis. By explicitly focusing on the coordination of globally dispersed but linked production systems, Gereffi (1999) has shown that many chains are characterized by a dominant parties who determine the overall character of the chain, and as lead firms becomes responsible for upgrading activities within individual links and coordinating
interaction between the links. This is a role of ‘governance’, where a distinction is made between those where the coordination is undertaken by buyers and those in which producers play the key role (Gereffi, 1999).

Lee (2002) characterizes efficient supply chain, risk hedging supply chains, responsive supply chains and agile supply chains as the four types of supply chain strategies an organization can adopt based on the demand and supply uncertainty framework. Chase (2004) contends that innovative products with high supply uncertainty and unpredictable demand face a major challenge and are best suited by the agile supply chain strategy while functional products with low demand uncertainty and low supply uncertainty should adopt an efficient supply strategy. A notable article on supply chain by Marshall Fowler (2001) points out that supply chain design depends on the nature of the product. He divides a product into functional that command low margins and innovative category that command higher margin. He argues that supply chain for functional products should be efficient while delivery precision and availability should drive innovative products.

2.5 Application of Value Chain Concept

Application of value chain concept is evident in business today. Approaches such as Resource Based View (RBV) (Barney, 1991, Wemenerfelt, 1986) and Value Net Management (Parolini, 1999) in strategic management are becoming more popular in order to factor in the linkage of resources to final products which is an endeavourer the value chain creation analysis (Musau, 2003). Organizations are today shifting from the traditional cost accounting to Activity Based Costing (ABC) which records cost of total process of providing a product. Business is also shifting from cost led pricing to price led
costing where the price the customer is willing to pay determines allowable costs. This will certainly force many organizations into economic value chain costing.

3.2 Research Design

The research design selected for the study was a cross-sectional survey which is a descriptive study that answers the question of who, what, where, when, and how of a specific study. This type of design was selected for the study entitled one because the study was concerned with understanding how many variables across all respondents in the same industry at a particular time in terms. Cooper and Emory (1995) recommend this design study for studies containing measures and representing many variables at a particular point in time. This study fits under this category.

3.3 The Population

The population consisted of two groups: current soldiers and non-troops. In total or 672 soldiers participated and returned questionnaires. Members of the other group were relatively heterogeneous. Those two groups were divided further into four smaller comparison of the same rank and subject important: sabotage, the productive, and leadership and personality representing the center. The sampling frame consisted of a list of elements of the population where a random assortment of elements was drawn and assigned a number as shown in the sampling lists in appendix B.
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes research design, targeted population, sampling procedure and data collection instruments used in the study.

3.2 Research Design

The research design selected for this study was a cross sectional survey which is a descriptive study that answers the question of who, what, where, when and how of a research study. This type of design was suitable for the study carried out because the study was concerned with measurements of same variables across all respondents in the same industry at a particular point in time. Cooper and Emory (1995) recommend this design study for studies carried out at once and representing same variables at a particular point in time. This study falls under this category.

3.3 The Population

The population consisted of two groups namely: producer and end users, in Nairobi as listed in the Pharmacy and Poisons Board Register as at 1st August 2005. Members of the either group were relatively homogeneous. These two groups were divided further into four stratum comprising of the manufacturers and direct importers representing the producers, and hospitals and pharmacies representing the users. The sampling frame consisted of a list of elements of the population in each stratum arranged in alphabetical order and assigned a number as shown in the sampling frame in appendix II to V.
The producer group had a population of 147 elements made up of 33 manufacturers and 114 direct importers. Population elements for the User group were 381 made up of 53 hospitals and clinics and 328 pharmacies.

### 3.4 Sampling Method

The degree of confidence attached to the findings of the research will depend on the sample size. Because a census of 528 elements was impractical and indeed unnecessary, with a constrained budget and time limitations, a representative sample of the population was used.

Stratified probability sampling method was used in selecting the sampling units from each of the sampling frame. This was to ensure that different groups of the population were adequately represented so as to increase the level of accuracy when estimating the parameters. The specified number of respondents from each stratum was picked through a simple random process using a computer.

Sample sizes of 8, 29, 13, and 82 study units from manufacturers, direct importers, hospitals and pharmaceutical respectively was selected from each stratum. This represents 25% of population of each stratum. Total sample size selected was 132 respondents to match available resources and timeframe. The selected sample size was within the widely accepted rule of thumb of at least 20% to 30% test units for a representative sample. Several researchers (Matseshe, 1999; Njoroge, 2003; Nganga J.N 2004) have used similar sample sizes in their studies.
Data Collection

Data collection was through two separate self-administered questionnaires for the producers and users both having closed and open ended questions. The closed ended questions enabled the researcher to collect quantitative data for statistical analysis while open-ended questions were intended to elicit qualitative responses about respondents' views on the role of the pharmaceutical distributors.

The questionnaire was in two parts. The first part consisted of respondents' data while the second part focused on achieving the objectives of the study. Respondents comprised of Managing Directors and managers since they are mostly involved with strategic business issues of their organisations.

Self administered questionnaire method was used. This was found to be economical as the respondent were scattered in different parts of Nairobi and they required time to go through the questionnaire. The questionnaires were administered through a drop and pick method as well as the email system. Follow up was done through telephone and email. During the picking of completed questionnaires, the respondents went through the questionnaire to check for any unanswered questions or vague answers.

Data Analysis

Data collected was coded and entered into the Statistical Package for the Social Sciences (SPSS) in which analysis was conducted. Measures of central tendency were used to give expected summary statistics of variables being studied while standard deviation was used to show the variability. Frequency distribution charts, percentages, relationships of parameters and cross tabulations on the sample data collected were computed to make
inferences on the population. A Chi Square \( (x^2) \) test was done to establish the statistical significance of the relationship between the variables under study.
CHAPTER FOUR: RESEARCH FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This Chapter details the findings and discussions of the research study. The data is summarized into mean scores, standard deviations, percentages and frequencies. These are subsequently presented in tables and charts as appropriate. A discussion of the implications of the findings on the research subject follows each table, figure or chart.

The purpose of the study was to find out the views and perceptions of pharmaceutical producers and users on the role and the value added by a pharmaceutical distributor in the pharmaceutical products logistics supply chain. The sample was made up of purposefully selected pharmaceutical manufacturers and direct importers; herein referred to as producers. Hospitals, clinics and pharmacies collectively referred to as users were also included in the study. Useful responses were obtained from a total of 59 informants. This is a response rate of 45% of the sample size of 132 respondents. It is comparable to other return rates of between 30% and 85% that several researchers have reported in their work (Matseshe, 1999; Njoroge, 2003, Nganga 2005).

The data collected was coded and entered in SPSS computer package where analysis was done. Frequency tables and charts were used to present the findings upon which interpretations and conclusions were made. The findings of the study are presented in the sections that follow:
4.2 Respondents Profile

The present section documents the various characteristics of respondents.

(a) Business Size

Figure 4.1 shows the number of employees the companies had. This variable was included to give a glimpse of the size of the organization where firms with 10 employees and below, between 11 and 50, and above 51 employees are considered as small, medium, and large respectively (Aosa, 1992). It also depicts the sector’s contribution in employment creation. The respondents were required to state the number of employees in the company. The findings were as presented in Figure 4.1.

Figure 4.1: Number of Employees

![Number of Employees](image)

Source: Research Data

Figure 4.1 shows that majority (60%) of the companies that are users of pharmaceutical products had a number of employees not exceeding 10 while 42% of the producers had above 51 employees. This finding suggests the producers are medium and large pharmaceutical manufacturing concerns and direct importers employing more labour compared to users who are mainly small pharmaceutical retail outlet chemists, clinics and dispensaries. The finding implies that the manufacturers are under pressure to quickly sell
their products and reduce on system costs along the supply chain so as to meet recurrent expenditure such as wages and salaries. The finding therefore indicates that the producers would require an expedient but inexpensive distribution process.

(b) **Business Ownership**

The study used this variable to observe the ownership of the companies involved in the production, importation and retailing of pharmaceutical products. The informants were asked to indicate the ownership of the company and the study findings with regard to ownership are shown in Table 4.2.

**Table 4.2: Company Ownership**

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predominantly family</td>
<td>22</td>
<td>55.0</td>
</tr>
<tr>
<td>Predominantly non-family</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>All family</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>Public</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Manufacturers/Importers ownership**

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 51% family</td>
<td>3</td>
<td>15.8</td>
</tr>
<tr>
<td>Above 51% non-family</td>
<td>10</td>
<td>52.6</td>
</tr>
<tr>
<td>All family</td>
<td>1</td>
<td>5.3</td>
</tr>
<tr>
<td>No response</td>
<td>5</td>
<td>26.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Source: Research Data**

Table 4.2 shows that 55% of the companies classified in this study as users of pharmaceutical products were family owned, while majority (52.6%) of the producers were non family. The trend emanating is that of small end user organizations that require less capital and control being more in family hands as opposed to large manufacturing
and direct importers that are more complex and require larger capital investments. The finding implies that the producers, given their larger capital base, have the capability to phase out distributors from the supplying chain and assume the role themselves. This suggests that they (producers) would only involve distributors when it is more cost effective to do so.

(c) Category of Business

The study observed the type of business conducted by the producers. The findings are as shown in Table 4.3

Table 4.3: Producers' Type of Business

<table>
<thead>
<tr>
<th>Type of business</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturers</td>
<td>5</td>
<td>26.3</td>
</tr>
<tr>
<td>Direct Importers</td>
<td>12</td>
<td>63.2</td>
</tr>
<tr>
<td>Both</td>
<td>2</td>
<td>10.5</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Research Data

As shown in Table 4.3, majority (63.2%) of the respondents who were sources of pharmaceutical products acquired the same from other countries. It can be seen that slightly more than one quarter (26.3%) manufactured them while 10.5% did both manufacturing and direct importation. The latter scenario suggests a need by some manufacturers to import other drugs probably to add up to their range of products or to be able to optimize the utilization of their distribution channels. It also confirms the general trend in the industry of consolidation, mergers and relocation of multinational companies from Kenya due to high production costs and opting for direct importation to be competitive with other direct importers.
It is against this backdrop that the study recommends that the government gives more incentives to local manufacturers as a boost to local production of pharmaceutical products. Further, the Pharmacy and Poisons Board which is the government regulatory agency in charge of standards must not lose grip in ensuring that drug imports, especially generics, are of required standards.

On the other hand, majority (62.5%) of the users were pharmacists who directly dispensed the products to the end user as indicated in Table 4.4

Table 4.4: Users' Type of Business

<table>
<thead>
<tr>
<th>Type of Business</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Clinics</td>
<td>12</td>
<td>30.0</td>
</tr>
<tr>
<td>Pharmacies</td>
<td>25</td>
<td>62.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Research Data

The results shown in Table 4.4 are in line with the anticipated finding that pharmacies are major outlet for pharmaceutical products. The findings suggest that it is imperative for the producers to maintain contact with pharmacies as the main retailers of their products; whether or not their products are channelled via the distributor.

4.2 Perceptions on Role of Pharmaceutical Distributors

The study objectives was to establish the pharmaceutical producers' and end users' perceptions and views on the value contributed by pharmaceutical distributors in the provision of medical supplies in Kenya. The findings are presented in the sections that follow.
(a) Importance of Customers by Producers

The informants were required to give a ranking of their customers in order of importance to their businesses. The findings of the study are presented in Table 4.5.

**Table 4.5: Producers’ Ranking of Customers**

<table>
<thead>
<tr>
<th>Customers</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals and clinics</td>
<td>2.76</td>
<td>1.437</td>
</tr>
<tr>
<td>Distributors</td>
<td>2.94</td>
<td>1.392</td>
</tr>
<tr>
<td>Pharmacies</td>
<td>3.00</td>
<td>1.969</td>
</tr>
<tr>
<td>Wholesalers</td>
<td>3.94</td>
<td>1.626</td>
</tr>
<tr>
<td>Private and public institutions</td>
<td>4.11</td>
<td>1.811</td>
</tr>
<tr>
<td>Doctors and physicians</td>
<td>4.59</td>
<td>1.938</td>
</tr>
</tbody>
</table>

*Scale: 1– Most Important, 7–Least Important*

**Source: Research Data**

Table 4.5 shows that hospitals and clinics (mean 2.76) were ranked as the most important to the producers. This implies that hospitals and pharmacies represented the most ideal outlet for the producers’ products to meet the final consumers.

The results also show that distributors (mean 2.94) were ranked second in order of importance to the producers. This implies that producers appreciated the role played by distributors in channelling out the products to the numerous retailers wherever they might be. This finding, perhaps, explains why most producers would maintain distributors despite increased costs in the product distribution process.
The pharmacies were ranked third in importance. However, having highest standard deviation (1.969) suggests least consensus amongst the informants. This implies that producers view pharmacies as erratic customers probably because of their (pharmacies) weaker procurement systems that are market driven.

To understand the extent to which the manufacturers and direct importers relied on the distributors in the pharmaceutical products logistics supply chain, the respondents were asked to state the volume of business channelled through them. The findings are presented in Figure 4.2 below.

**Figure 4.2: Volume of business channelled through medical distributors**

![Bar Chart]

<table>
<thead>
<tr>
<th>Business Volume</th>
<th>Producers</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%-50%</td>
<td>76</td>
<td>48</td>
</tr>
<tr>
<td>51%-100%</td>
<td>24</td>
<td>53</td>
</tr>
</tbody>
</table>

Source: Research Data

As shown in Figure 4.2, 76% of the producers channelled out up to 50% of their businesses through the distributors while 24% used the distributors to roll out 51%-100% of the products manufactured or imported. The finding implies that one in four producers had opted to almost entirely outsource distribution of their products, probably to concentrate on the core business of production or direct importation.
The findings further revealed that slightly over one half of the users obtained 51%-100% of their stocks from the distributors compared to 48% who got up to 50% of their supplies from the distributors. The findings generally show heavy reliance on the distributor by both the producers and the users to distribute or supply pharmaceutical products.

To achieve the goal of supplying users with required products, all the producers stated that the distributors always kept stock of their brands and had a warehouse or a medical store. This implies that the distributors invested in infrastructure necessary to meet this objective.

It is evident from the findings that that producers and users of pharmaceutical products viewed the role played by the distributor as invaluable. It is therefore recommended that distributor-producer operations be guided by professionally done contracts to rule out exploitation or intimidation. These pacts should be crafted to promote fairness as well as be mutually beneficial.

The study also inquired whether the producers involved the distributors in the marketing and promotion of the products they dealt in through medical representatives. The producers were asked if they allowed their distributors to detail their products to doctors and physicians. The findings are as shown in Table 4.6.

**Table 4.6: Do distributors market or detail products to physicians and doctors?**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>14</td>
<td>73.7</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>26.3</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Research Data
It is shown in Table 4.6 that 73.7% of the producers had their distributors market their products directly to the doctors and physicians through their medical representative. This is probably because the distributors being closer to the users could easily establish rapport and one-on-one relationships that could ensure perpetual sales. This scenario, however, exposes a situation whereby distributors only promote the products that offer them better margins to the disadvantage of others.

The study also found out that majority of the producers (84.2%) allowed the distributors to return expired or slow moving unsold products. This implies that most of the producers carried the risk of unsold products. Without product ownership, distributors have the capacity to hold the producers at ransom or misadvise on the market conditions thereby exposing them to unnecessary risks.

This finding illustrates the need for producers to study the market well before launch or introduction of a new product. Further, the need to keep up the market or push slow moving products must be initiated and supervised by the producers.

4.3 Level of Satisfaction with Distributors' Services

The study tried to find out how producers rated particular aspects of the producer-distributor relationship. The data in this respect were obtained by likert-type questions by which informants relatively ranked the statements. The responses elicited are illustrated in Table 4.7.
Table 4.7: Producers satisfaction with distributor services

<table>
<thead>
<tr>
<th>Producers satisfaction with distributor services</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity of sales discount or commissions demanded</td>
<td>2.84</td>
<td>1.385</td>
</tr>
<tr>
<td>Substitution of medicine prescribed by the physician</td>
<td>2.95</td>
<td>1.268</td>
</tr>
<tr>
<td>Feedback of information from customers to facilitate inventory planning</td>
<td>3.00</td>
<td>1.333</td>
</tr>
<tr>
<td>Payment/settlement of accounts payable</td>
<td>3.11</td>
<td>1.329</td>
</tr>
<tr>
<td>Marketing promotion and detailing of your products to end users</td>
<td>3.53</td>
<td>1.219</td>
</tr>
<tr>
<td>Placing delivery orders on time</td>
<td>3.68</td>
<td>1.057</td>
</tr>
<tr>
<td>Prompt delivery of the products to end user</td>
<td>3.79</td>
<td>0.918</td>
</tr>
</tbody>
</table>

*Scale: 1-Extremely Dissatisfied  5 – Extremely Satisfied*

Source: Research Data

It can be seen that producers were most satisfied with the distributors’ ability to promptly deliver products (mean 3.79) to the end users. This signifies that the distributors were most efficient in moving goods quickly to where they are required; a task they are best positioned to achieve given their proximity to the end users. A standard deviation of 0.918 indicates a high consensus among the respondents in that respect. The producers were also content with order placement which they generally reported to be satisfied with (mean 3.68).

The findings further show that the producers were least satisfied with the amount of discounts and commissions demanded by the distributors. This is probably because the producers conceded high discounts to the distributors which were not necessarily passed down to the users for increased sales. The standard deviation of 1.347 (highest) denotes the least consensus among respondents.
The study also sought the opinion of users of pharmaceutical products on the value of a distributor in the chain process. A Likert scale was used to rank the given statements in order of importance. The ratings of particular aspects of the user-distributor relationship were sought and are as illustrated in Table 4.8.

### Table 4.8: Users' satisfaction with distributor services

<table>
<thead>
<tr>
<th>User's satisfaction with distributor services</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information from manufacturers on new drugs</td>
<td>2.93</td>
<td>1.347</td>
</tr>
<tr>
<td>Amount of sales discount offered</td>
<td>2.95</td>
<td>.714</td>
</tr>
<tr>
<td>Poor credit terms</td>
<td>2.95</td>
<td>.846</td>
</tr>
<tr>
<td>Substitution of drugs ordered</td>
<td>3.20</td>
<td>.758</td>
</tr>
<tr>
<td>Supplying the drugs on time</td>
<td>3.63</td>
<td>1.030</td>
</tr>
</tbody>
</table>

*Scale: 1 - Extremely Dissatisfied  5 - Extremely Satisfied*

**Source:** Research Data

It was established that users were most contented with timely supply of drugs upon order placements. This is most likely because distributors were quick in supplying orders since they are closer to the users than the producers. This finding clearly shows that the critical value distributors added to the users in the supply chain, additional cost not withstanding, was prompt supply of required drugs.

Users were generally least satisfied with the distributors inability to pass down information from manufacturers on new drugs through to them (mean 2.93). This is probably because distributors did not have built up capacity to handle the technical aspects of the products they dealt in. Users though seemed to expect the supplier of drugs to give pertinent technical information. The standard deviation of 1.347 though indicates the least consensus among the respondents.
It can be seen from the findings that both producers and users were most satisfied by the time it took the distributor to deliver ordered drugs. The finding that the distributor demanded discounts from manufacturers but gave little to users implies they (distributors) used the discounts to widen their margin. It also suggests that the producers lacked the means to impose on the distributors the price at which to sell to the users. Further, producers cannot effectively use price reductions as a promotional strategy since such may not trickle down to users, at which point they would have the desired effect.

It was found out that users were dissatisfied with technical information given out by most distributors on the drugs they supplied. It is therefore recommended that producers step up provision of such information through the medical representatives. They can also include as much information as possible in the packaging. Further, producers should indicate prices on the product packs in cases when they need to reduce prices as a promotional strategy.

4.4 Role of Medical Distributors in the Supply Chain Process

The study objective was to establish the perceptions of the respondents on role of medical distributors in the supply chain process. The informants were required to give an evaluation of the extent to which they agreed or disagreed with the various statements given. Likert type scale was used to obtain relative importance of each of the statements given. The findings of the study are presented in tables 4.9 and 4.10.
<table>
<thead>
<tr>
<th>Roles</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>They only place orders upon receipt of a doctor's prescription</td>
<td>4.11</td>
<td>1.431</td>
</tr>
<tr>
<td>Distributors can add value but must change concept of the role played</td>
<td>3.76</td>
<td>1.437</td>
</tr>
<tr>
<td>Distributors do not take ownership of the products</td>
<td>3.44</td>
<td>1.548</td>
</tr>
<tr>
<td>Distributors add more to cost than to value in the medical supply chain</td>
<td>3.32</td>
<td>1.565</td>
</tr>
<tr>
<td>Distributors have zero marketing costs-they only push paper</td>
<td>3.28</td>
<td>1.776</td>
</tr>
<tr>
<td>Distributors cannot justify their commissions and discounts</td>
<td>3.21</td>
<td>1.653</td>
</tr>
<tr>
<td>They return expired products and demand compensation</td>
<td>3.17</td>
<td>1.618</td>
</tr>
<tr>
<td>Discount they demand unnecessarily increase costs to patients</td>
<td>3.00</td>
<td>1.732</td>
</tr>
<tr>
<td>With ICT there is no need for a pharmaceutical distributor</td>
<td>2.89</td>
<td>1.729</td>
</tr>
<tr>
<td>Distribution business has no future</td>
<td>2.89</td>
<td>1.711</td>
</tr>
<tr>
<td>Without distributors, cost of drugs would be reasonably lower and affordable</td>
<td>2.72</td>
<td>1.742</td>
</tr>
<tr>
<td>Distributors do not contribute value in the supply chain</td>
<td>2.72</td>
<td>1.227</td>
</tr>
<tr>
<td>Marketing and detailing to doctors is done by manufacturers/importers</td>
<td>2.63</td>
<td>1.640</td>
</tr>
<tr>
<td>Distributors do not stock medical products</td>
<td>2.47</td>
<td>1.504</td>
</tr>
<tr>
<td>Distributors do not market, promote or detail medical products</td>
<td>2.37</td>
<td>1.300</td>
</tr>
<tr>
<td>The medical supply chain would be more efficient without the distributor</td>
<td>2.32</td>
<td>1.376</td>
</tr>
<tr>
<td>They will be no place for the distributor in today's and future business</td>
<td>2.17</td>
<td>1.465</td>
</tr>
</tbody>
</table>

Scale: 1-Strongly Disagree  5 – Strongly agree

Source: Research Data
As shown in Table 4.9, producers most disagreed (mean 2.17) with the statement that the distributors had no role in today’s and future business. This is most likely because they regarded the distributor as a pillar or critical link in the supply chain. It means that with the distributor in place the producer only has to focus on the core business of production or importation where he has a competitive advantage and out sources distributor services.

The finding suggests that in an ideal scenario, the manufacturer would invest more in manpower and equipment that aid or enhance the manufacturing process while the distributor provides the means for moving the products to the end users. Further, the producers disagreed to the statement that the medical supply chain would be more efficient without the distributor. Standard deviations of 1.465, shows a divergence in opinion among the respondents.

On the other hand, producers concurred to the statement that the distributor added value but must change concept of the role played. This implies that producers would like to change a few aspects of their operation. There was consensus among the producers that the distributor did not take ownership of the products. This means that he (distributor) did not bear the risk of making loses on expired or slow moving goods. This suggests that the distributor would opt to deal in fast moving products which are sure to quickly give him the commissions.

The findings revealed that the producers felt the distributors could do more than just to place orders upon receipt of a doctor’s prescription. This alludes to a view that distributors could add value in the supply chain process by using their access and goodwill to end users to effectively market the products.
Table 4.10: Users opinion on the role of medical distributors

<table>
<thead>
<tr>
<th>Roles</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing is done by importers and manufacturers</td>
<td>3.73</td>
<td>1.358</td>
</tr>
<tr>
<td>We place orders with the distributors</td>
<td>3.45</td>
<td>1.176</td>
</tr>
<tr>
<td>Distributors place orders to their suppliers once they receive our order</td>
<td>3.29</td>
<td>1.426</td>
</tr>
<tr>
<td>Without distributors cost of drugs would be more affordable</td>
<td>3.28</td>
<td>1.467</td>
</tr>
<tr>
<td>Distributors add more to cost than value for drugs</td>
<td>3.20</td>
<td>1.224</td>
</tr>
<tr>
<td>They can add value but they don’t try to</td>
<td>2.95</td>
<td>1.395</td>
</tr>
<tr>
<td>They don’t pass discounts from manufacturers to end user</td>
<td>2.90</td>
<td>1.336</td>
</tr>
<tr>
<td>They do not detail or explain the products to us</td>
<td>2.83</td>
<td>1.662</td>
</tr>
<tr>
<td>They don’t have technical knowledge of the drugs</td>
<td>2.75</td>
<td>1.276</td>
</tr>
<tr>
<td>Distributors have zero marketing costs</td>
<td>2.75</td>
<td>1.156</td>
</tr>
<tr>
<td>Distributors do not contribute value in the supply chain</td>
<td>2.68</td>
<td>1.457</td>
</tr>
<tr>
<td>They can not justify their commissions and discounts</td>
<td>2.65</td>
<td>1.145</td>
</tr>
<tr>
<td>Minus the distributor the drug supply chain would be efficient</td>
<td>2.38</td>
<td>1.427</td>
</tr>
<tr>
<td>Distributors have no business visiting us</td>
<td>2.28</td>
<td>1.414</td>
</tr>
<tr>
<td>With the advent of ICT, there is no place for the drug distributor</td>
<td>2.15</td>
<td>1.369</td>
</tr>
<tr>
<td>There is no place for the distributor</td>
<td>1.93</td>
<td>1.023</td>
</tr>
<tr>
<td>There is no future for distribution business</td>
<td>1.93</td>
<td>1.309</td>
</tr>
</tbody>
</table>

Scale: 1-Strongly Disagree  5 – Strongly agree
Source: Research Data

Table 4.10 shows that the role of medical distributors as seen by the users was passing on their orders to the producers (mean 3.45) who in turn service them through the distributors. There was consensus among the users that marketing was done by importers and manufacturers (mean 3.73). The findings generally show that users viewed
distributors as necessary entity in the supply chain that helped them quickly access the drugs. However, the cost of accessing the drugs escalated due to the distributor's presence. The users felt that the distributor did not try to add value to his presence though he was in a position to. The findings suggest that the users would be happier if the manufacturer had a system of directly handling the distributorship. That the way the costs of drugs would be lower and they would be able to access discounts, which the distributor often withheld.

All in all the users were unanimous in disagreement (standard deviation 1.023), mean 1.93, that the distributor would be phased out of the supply chain process. Not even Information and Communication Technology (ICT) would take the place of a distributor (mean 2.15). This is most likely because the medical supply process relies heavily on logistics of physical movement of goods which may not be substitutable with ICT.

The study sought the opinion of the informants as to whether it was necessary to track the value added by distributors in the supply chain process. The findings are shown in Fig 4.3

**Figure 4.3: Respondents opinion on need to track distributors' value**

![Respondents Opinion on Need to Track Distributors Value](image)

Source: Research Data
As shown in Figure 4.3, 61% of the producers said it was necessary to evaluate the role of the distributors in the chain process. This is because the distributorship is a critical element in the supply chain process. It implies that most producers understood the need to have a smooth distribution process devoid of inefficiencies.

Majority of the users (53%) on the other hand did not see the need to track the distributors’ value. This is probably because as consumers with purchasing power, they could opt to only buy into the best deal presented to them. Further, the findings imply that competition among the distributors and producers blurs the distribution chain hence the users’ stand since they have the option to source from either the producers or distributor.

The informants were also required to rank given concepts of cooperation with their distributors. A Likert scale was used to derive a relative rating for each of the statements given. The findings are illustrated in Figure 4.4.

Figure 4.4: Ranking of cooperation concepts

<table>
<thead>
<tr>
<th>Respondents Ranking of Cooperation Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic partner</td>
</tr>
<tr>
<td>Value Networks</td>
</tr>
<tr>
<td>Quality competition</td>
</tr>
<tr>
<td>Close cooperation</td>
</tr>
<tr>
<td>Price competition</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Producers</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.9</td>
<td>3.7</td>
</tr>
<tr>
<td>3.0</td>
<td>3.5</td>
</tr>
<tr>
<td>1.9</td>
<td>2.0</td>
</tr>
<tr>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>1.3</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Scale: 1-Most Important  5-Least Important
Source: Research Data
The findings in Figure 4.4 show that both producers and users valued most cooperation with distributors that would yield quality competition and reduced system costs. Users valued most price competition (mean 1.3) implying that they would most value the cooperation with the distributors if it resulted in better prices for the drugs. This would be achievable controlled pricing policy and by passing on discounts from producers. Producers on the other hand valued cooperation with distributors that would help maintain the quality of the products. This would be achievable by proper handling of products distributed. Good cooperation would also enable distributors to pass up feedback from end users that would be used to improve the quality of the products.

The respondents were asked to rank the contribution of the distributor to value chain in assisting them meet various organizational objectives. The responses obtained from producers and users are shown in Table 4.11 and 4.12 respectively.

As shown in Table 4.11, delivery speed (mean 2.12) was the single most important objective producers expected distributors to achieve. This is because having products delivered promptly is the surest way to secure a market share, achieve sales targets and customer satisfaction. Producers also expected distributors to project a reliability image to the end users. This can be actualized by maintaining a steady supply of the products and enforcing product guarantees if any. On the other hand, acting as contacts and promotional agents was the role producers least expected the distributors to help them attain.
Table 4.11: Distributor contribution to attainment of producers’ organizational objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time/delivery speed</td>
<td>2.12</td>
<td>0.562</td>
</tr>
<tr>
<td>Reliability</td>
<td>2.33</td>
<td>0.840</td>
</tr>
<tr>
<td>Profitability</td>
<td>2.61</td>
<td>0.895</td>
</tr>
<tr>
<td>Cost reduction</td>
<td>2.74</td>
<td>1.695</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>2.82</td>
<td>0.885</td>
</tr>
<tr>
<td>Value creation</td>
<td>3.00</td>
<td>1.455</td>
</tr>
<tr>
<td>Negotiating</td>
<td>3.11</td>
<td>1.243</td>
</tr>
<tr>
<td>Organizational learning</td>
<td>3.24</td>
<td>1.200</td>
</tr>
<tr>
<td>Technology</td>
<td>3.24</td>
<td>1.393</td>
</tr>
<tr>
<td>Research</td>
<td>3.35</td>
<td>1.498</td>
</tr>
<tr>
<td>Creativity and innovativeness</td>
<td>3.50</td>
<td>1.339</td>
</tr>
<tr>
<td>Product quality</td>
<td>3.56</td>
<td>1.617</td>
</tr>
<tr>
<td>Dependability</td>
<td>3.76</td>
<td>1.393</td>
</tr>
<tr>
<td>Flexibility</td>
<td>3.94</td>
<td>1.162</td>
</tr>
<tr>
<td>Customer focus</td>
<td>4.11</td>
<td>1.023</td>
</tr>
<tr>
<td>Networking</td>
<td>4.17</td>
<td>0.786</td>
</tr>
<tr>
<td>Physical distribution</td>
<td>4.17</td>
<td>1.150</td>
</tr>
<tr>
<td>Promotion</td>
<td>4.32</td>
<td>0.671</td>
</tr>
<tr>
<td>Contact</td>
<td>4.44</td>
<td>0.922</td>
</tr>
</tbody>
</table>

Scale: 1-Very important 5 – Least important

Source: Research Data

The findings indicate a high consensus, standard deviation of 0.562, regarding distributors’ contribution in prompt delivery of products. Contact and promotion emerged as the least important objectives that the producers expected the distributors to help achieve. It implies that the producers still understood the need to maintain contact directly with the end users.
Table 4.12: Distributor contribution to attainment of user’s organizational objectives

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time/delivery speed</td>
<td>1.81</td>
<td>.736</td>
</tr>
<tr>
<td>Reliability</td>
<td>2.42</td>
<td>.649</td>
</tr>
<tr>
<td>Profitability</td>
<td>2.50</td>
<td>.845</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>3.36</td>
<td>1.046</td>
</tr>
<tr>
<td>Product quality</td>
<td>3.36</td>
<td>1.823</td>
</tr>
<tr>
<td>Value creation</td>
<td>3.42</td>
<td>1.538</td>
</tr>
<tr>
<td>Creativity and innovativeness</td>
<td>3.44</td>
<td>1.132</td>
</tr>
<tr>
<td>Organizational learning</td>
<td>3.47</td>
<td>.971</td>
</tr>
<tr>
<td>Networking</td>
<td>3.69</td>
<td>.668</td>
</tr>
<tr>
<td>Promotion</td>
<td>3.69</td>
<td>1.618</td>
</tr>
<tr>
<td>Negotiating</td>
<td>3.85</td>
<td>.906</td>
</tr>
<tr>
<td>Cost reduction</td>
<td>3.94</td>
<td>1.194</td>
</tr>
<tr>
<td>Customer focus</td>
<td>3.94</td>
<td>1.330</td>
</tr>
<tr>
<td>Contact</td>
<td>3.97</td>
<td>.774</td>
</tr>
<tr>
<td>Dependability</td>
<td>3.97</td>
<td>.845</td>
</tr>
<tr>
<td>Technology</td>
<td>4.17</td>
<td>1.159</td>
</tr>
<tr>
<td>Physical distribution</td>
<td>4.28</td>
<td>.659</td>
</tr>
<tr>
<td>Flexibility</td>
<td>4.36</td>
<td>.798</td>
</tr>
<tr>
<td>Research</td>
<td>4.37</td>
<td>1.384</td>
</tr>
</tbody>
</table>

Scale: 1- Very important 5 - Least important

Source: Research Data

Table 4.12 shows that users expected distributors first and foremost to contribute in speedy delivery of products required (mean 1.81). Users also expected their partnership with distributors to enhance their reliability as well as profitability. This is most likely thorough continuous supply of the right products at the right price.
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APPENDIX I: LETTER TO RESPONDENTS

University Of Nairobi
Faculty of Commerce
Dept of Bus. Admin.
P.O. Box 30197,
Nairobi

Dear Respondent

Re: Collection of Survey Data

I am a postgraduate student at the University of Nairobi, Faculty of Commerce. In order to fulfil the degree requirement I am undertaking a management research project on the supply chain concept. The study is titled “pharmaceutical producers and end users perception of the role of the distributor”.

You have been selected to form part of this study. This therefore, is to kindly request you to assist me collect the data by filling out the accompanying questionnaire, which I will collect from your premises.

The information and data provided will be exclusively for academic purpose. My supervisor and I assure you that the information you give will be treated with strict confidence. At no time will you appear on the report. Your cooperation will be highly appreciated

Yours Faithfully

Francis Chege
Student

Jackdon Malu
Supervisor
APPENDIX II: QUESTIONNAIRE FOR PRODUCERS

(Producers include Local Drug Manufacturers and Direct Importers)

PART A

1. Personal Details of the Respondent (Optional)

Name:
...........................................................................................................................................

Designation:
...........................................................................................................................................

Responsibility: ......................................................................................................................................
......................................................................................................................................................
......................................................................................................................................................

2. Company Data

a) Company Name: .......................................................................................................................

b) How many employees does the company have?

   i) 10 and Below  □  ii) Between 11 and 50 □  iii) 51 and above □

c) What type of Business are you involved in (Please tick appropriately)

   i) Pharmaceutical Manufacturers □

   ii) Pharmaceutical Importers □

   iii) Pharmaceutical Distributors □

   vi) Other (Please specify): ...........................................................................................................

   .....................................................................................................................................................

   d) Ownership of the company (Please tick as appropriate)

   i) Predominantly family (above 51%) □

   ii) Predominantly non-family (above 51%) □

   iii) All family □

   iv) Public □

   v) Any other ..................................................................................................................................

......................................................................................................................................................
......................................................................................................................................................
......................................................................................................................................................
PART B

1) Within the pharmaceutical products logistics supply chain, how would you describe your business?
   a) Manufacturers  □  b) Direct importers  □

2) Please rank the following customers in order of importance to your business starting with 1 as most important and 7 being least important
   a) Wholesalers □
   b) Hospitals, clinics, Dispensaries etc □
   c) Private & Public Institutions □
   d) Distributors □
   e) Doctors and physicians □
   f) Pharmacies, Chemists, Apothekes etc □
   g) Others: ........................................................................................................

3) Do you have a warehouse or a medical store?
   Yes □  No □

4) If YES what is the value of average stock holding in million of Kenya Shillings?
   a) 10 and Below  □  b) Between 11 and 50  □
   c) Between 51 and 100  □  d) Over 100  □

5) How many medical representatives do you employ? ............................................

6) How much of your business goes through medical distributors?
   a) None □  b) Between 1% - 50% □  c) Between 51% - 100% □

7) Do distributors always keep stock of your brands?
   Yes □  No □

8) Do the distributors market or detail your products to physicians and doctors?
   Yes □  No □

9) How much commissions and discounts do you pay to the distributors? (Please indicate this as a % of your trade price)
10) Do distributors return to you any expired or slow moving products they have not sold?

Yes ☐ No ☐

11) Besides each of the statements presented below, please indicate to what extent you are satisfied with services rendered by your distributors

1 = Extremely dissatisfied  2 = Dissatisfied  3 = Neutral  4 = Satisfied  5 = Extremely Satisfied

i) Placing delivery orders on time ☐

ii) Marketing, promotion & detailing of your products to end users ☐

iii) Substitution of medicines prescribed by the physician ☐

iv) Quantity of sales discount or commissions demanded ☐

v) Feedback of information from customers to facilitate inventory planning ☐

vi) Payments / settlement of accounts payable ☐

vii) Prompt delivery of the products to end user ☐

12) Medical Distributors play various roles in the supply chain process. To what extent do you agree with the following roles they play in a scale of 1 – 5, 1 being Strongly Disagree and 5 being Strongly Agree

a) Distributors add more to cost than to value in the medical supply chain ☐

b) Discount they demand unnecessarily increase costs to patients ☐

c) Without distributors, cost of drugs would be reasonably lower and affordable ☐

d) Distributors do not market, promote or detail medical products ☐

e) Distributors do not stock medical products ☐

f) Distributors do not take ownership of the products ☐

g) They return expired products and demand compensation ☐

h) They only place orders upon receipt of a doctor’s prescription ☐

i) Marketing and detailing to doctors is done by the importers ☐
and manufacturers

j) Distributors have zero marketing costs – they only push paper

k) Distributors cannot justify their commissions and discounts

l) There will be no place for the distributor in today’s and future business

m) Without the distributor the medical supply chain would be efficient

n) With the advent of Information Communication Technology, there is no place for pharmaceutical distributor

o) Distribution is a sunset business – it has no future

p) Distributors do not contribute value along supply chain

q) Distributors can add value but must change concept of the role played

13) Indicate by circling the relative importance of the following important pragmatic and organisational areas in your business

<table>
<thead>
<tr>
<th></th>
<th>Least</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 Most</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Operational Efficiency</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. Meeting Targets</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. Cost Reduction</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. Outdoing Competition</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. Survival</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. Long Term Perspective</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>g. Partnership</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>h. Growing Customers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>i. Growing Suppliers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

14) In your opinion, is there a need to track the value that is added by distributors in the Supply Chain process?

Yes ☐ No ☐

15) If YES how do you define value chain in your organisation?
16) How do you measure or assess value created by distributor?

17) In your opinion, do you believe value chain management leads to enhanced competitiveness? – Please rate its contribution in a scale of 1 to 5 with 1 being “Very Much” and 5 being “Not At All”

1 □ 2 □ 3 □ 4 □ 5 □

18) What value do you give to the following groups in terms of creating competitive advantage for your organisation? Please give a rank by putting a circle from 1 = Least important to 5 = Very important

<table>
<thead>
<tr>
<th>Least important</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 Very</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Customer</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Suppliers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Suppliers Supplier</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

19) Please rank the following concepts in order of their importance in terms of your distributor creating customer satisfaction as well as helping you optimise your organisations goals. Start from 1 being Most important

Price Competition □
Close cooperation □
Quality competition □
Value Networks □
Strategic Partner □
20) How important is the contributions of Distributor to value chain in assisting you attain the following objectives for your organisation. Please give a rank from 1=Least Important to 5=Very Important

<table>
<thead>
<tr>
<th>Important</th>
<th>Least important 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 Very</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Quality</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Cost reduction</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Flexibility</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Time / Delivery Speed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Creativity and innovativeness</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Organisational learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Networking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Technology</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Profitability</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Promotion</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Contact</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Reliability</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Negotiating</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Dependability</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Physical distribution</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Value creation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Customer focus</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

21) Please highlight any other issues regarding the creation of value by the distributors that can enrich this study.

Thank you for finding time to fill in the questionnaire.
APPENDIX III: QUESTIONNAIRE FOR USERS

(Users Include Hospitals, Clinics, Pharmacies, Chemists, Institutions etc)

PART A

1. Personal Details of the Respondent (Optional)

Name: ..........................................................................................................................................

Designation: ..................................................................................................................................

Responsibility: .................................................................................................................................

2. Company Data

a) Company Name: ...........................................................................................................................

b) How many employees does the company have?

   i) 10 and Below □   ii) Between 11 and 50 □   iii) Above 51 □

c) What type of Business are you involved in (Please tick appropriately)

   i) Pharmaceutical Manufacturers □

   ii) Pharmaceutical Importers □

   iii) Pharmaceutical Distributors □

   vi) Other (Please specify): .............................................................................................................

d) Ownership of the company (Please tick as appropriate)

   i) Predominantly family (above 51%) □

   ii) Predominantly non-family (above 51%) □

   iii) All family □

   iv) Public □

   v) Any other.................................................................................................................................
PART B

1) Within the pharmaceutical products logistics supply chain, how would you describe your business?
   a) Manufacturers □ b) Direct importers □ c) Distributor □

2) Please rank the following customers in order of importance to your business starting with 1 as the Most Important.
   a) Wholesalers □
   b) Hospitals, clinics, Dispensaries etc □
   c) Private & Public Institutions □
   d) Distributors □
   e) Doctors and physicians □
   f) Others:

3) How would you describe the demand and supply characteristics of your products?
   a) Demand uncertainty (i) High □ (ii) Low □
   b) Supply uncertainty (i) High □ (ii) Low □

4) How much of your products are supplied through the distributor?
   a) None □ b) Between 1%- 50% □ c) Between 51- 100% □

5) Besides each of the statements presented below, please indicate to what extent you are satisfied with services rendered by your distributors

1=Extremely dissatisfied 2=Dissatisfied 3=Neutral 4=Satisfied 5=Extremely Satisfied

i) Supplying the drugs on time □
ii) Substitution of drugs ordered □
iii) Amount of sales discount offered □
iv) Feedback of information from manufacturers and importers on new drugs □
v) Poor credit terms □
6) Medical Distributors play various roles in the supply chain process. To what extent do you agree with the following roles they play in a scale of 1 – 5, 1 being Strongly Disagree and 5 being Strongly Agree

i) Distributors add more to cost than value for drugs
ii) They don’t pass discounts from manufacturers us end user
iii) Without distributors cost of drugs would be more affordable
iv) We place orders with the distributors
v) Distributors place orders to their suppliers once they receive our order
vi) Marketing work is done by the importers and manufacturers
vii) Distributors have no business visiting us
viii) They do not detail or explain the products to us
ix) They often don’t have the technical knowledge of the drugs
x) Distributors have zero marketing costs – they only push paper
xi) They cannot justify their commissions and discounts
xii) There is no place for the distributor
xiii) Without the distributor the drug supply chain would be efficient
xiv) With the advent of Information Communication Technology, there is no place for drug distributor
xv) It’s a sunset business - There is no future for distribution business
xvi) Distributors do not contribute value in supply chain
xvii) They can add value but they don’t try to

7) Indicate by circling the relative importance of the following important pragmatic and organisational areas in your business

<table>
<thead>
<tr>
<th>Least</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 Most</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Operational Efficiency</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b) Meeting Targets</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c) Cost Reduction</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
8) In your opinion, is there a need to track the value that is added by distributors in the Supply Chain process?

   Yes ☐   No ☐

9) If YES how do you define value chain in your organisation?

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

10) How do you measure and or assess value created by distributors?

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

11) In your opinion, do you believe value chain management leads to enhanced competitiveness? – Please rate its contribution in a scale of 1 to 5 with 1 being "Very Much" and 5 being "Not At All"

   1 ☐  2 ☐  3 ☐  4 ☐  5 ☐
12) What value do you give to the following groups in terms of creating competitive advantage for your organisation? Please give a rank by putting a circle from 1=Least important to 5=Very important

<table>
<thead>
<tr>
<th></th>
<th>Least important</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 Very</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Customer</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Suppliers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Suppliers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

13) Please rank the following concepts in order of their importance in terms of your distributor creating customer satisfaction as well as helping you optimise your organisations goals starting with 1 as Most Important

- Price Competition
- Close cooperation
- Quality competition
- Value Networks
- Strategic Partner

14) How important is the contributions of Distributor to value chain in assisting you attain the following objectives for your organisation. Please give a rank from 1=Least Important to 5=Very Important

<table>
<thead>
<tr>
<th></th>
<th>Least important</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 Very</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Quality</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Cost reduction</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Flexibility</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Time/Delivery Speed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Creativity and innovativeness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Research</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Organisational learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Networking</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Technology</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Profitability</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Promotion</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Contact</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Reliability</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Negotiating</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Dependability</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Physical distribution</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Value creation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Customer focus</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

15) Please highlight any other issues regarding the creation of value by the distributors that can enrich this study.

Thank you for finding time to fill in the questionnaire.
### APPENDIX IV: PRODUCERS OF PHARMACEUTICAL PRODUCTS

#### A) LOCAL PHARMACEUTICAL MANUFACTURERS IN NAIROBI

<table>
<thead>
<tr>
<th>No.</th>
<th>Company Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aesthetics Ltd.</td>
<td>P.O. Box 18171 Nairobi</td>
</tr>
<tr>
<td>2</td>
<td>Autosterele E.A.</td>
<td>P.O. Box 27726 Nairobi</td>
</tr>
<tr>
<td>3</td>
<td>Beta Healthcare Ltd.</td>
<td>P.O. Box 42569 Nairobi</td>
</tr>
<tr>
<td>4</td>
<td>Biodeal Laboratories</td>
<td>P.O. Box 32040 Nairobi</td>
</tr>
<tr>
<td>5</td>
<td>Cooper Pharmaceuticals</td>
<td>P.O. Box 40596 Nairobi</td>
</tr>
<tr>
<td>6</td>
<td>Cosmos Ltd.</td>
<td>P.O. Box 41433 Nairobi</td>
</tr>
<tr>
<td>7</td>
<td>Cussons &amp; Company</td>
<td>P.O. Box 48597 Nairobi</td>
</tr>
<tr>
<td>8</td>
<td>Dawa Pharmaceuticals</td>
<td>P.O. Box 4710 Nairobi</td>
</tr>
<tr>
<td>9</td>
<td>Didy Pharmaceuticals</td>
<td>P.O. Box 41426 Nairobi</td>
</tr>
<tr>
<td>10</td>
<td>Elys Chemical Industries</td>
<td>P.O. Box 40411 Nairobi</td>
</tr>
<tr>
<td>11</td>
<td>Gesto Pharmaceuticals</td>
<td>P.O. Box 43375 Nairobi</td>
</tr>
<tr>
<td>12</td>
<td>GlaxoSmithKline</td>
<td>P.O. Box 18288 00500 Nairobi</td>
</tr>
<tr>
<td>13</td>
<td>HighChem Pharmaceuticals</td>
<td>P.O. Box 30167 Nairobi</td>
</tr>
<tr>
<td>14</td>
<td>Infusion Kenya</td>
<td>P.O. Box 30467 Nairobi</td>
</tr>
<tr>
<td>15</td>
<td>Ivey Aqua</td>
<td>E.P.Z</td>
</tr>
<tr>
<td>16</td>
<td>Kam Industries</td>
<td>P.O. Box 31148 Nairobi</td>
</tr>
<tr>
<td>17</td>
<td>Kenya Sterile Supplies</td>
<td>P.O. Box 50794 Ruiru</td>
</tr>
<tr>
<td>18</td>
<td>Lab &amp; Allied Ltd</td>
<td>P.O. Box 42875 Nairobi</td>
</tr>
<tr>
<td>19</td>
<td>Mac's Pharmaceuticals</td>
<td>P.O. Box 43912, Nairobi</td>
</tr>
<tr>
<td>20</td>
<td>Manhar Brothers</td>
<td>P.O. Box 40447 Nairobi</td>
</tr>
<tr>
<td>21</td>
<td>Norbrook Africa E.P.Z Ltd.</td>
<td>P.O. Box 404 Athi River</td>
</tr>
<tr>
<td>22</td>
<td>Norvatis E.A. Ltd</td>
<td>P.O. Box 30393 Nairobi</td>
</tr>
<tr>
<td>23</td>
<td>Novelty Manufacturing</td>
<td>P.O. Box 42708 Nairobi</td>
</tr>
<tr>
<td>24</td>
<td>Pharmaceutical Manufacturing Company</td>
<td>P.O. Box 47211 Nairobi</td>
</tr>
<tr>
<td>25</td>
<td>Pharmaceutical Products Ltd.</td>
<td>P.O. Box 18835 Nairobi</td>
</tr>
<tr>
<td>26</td>
<td>Population Services Ltd</td>
<td>P.O. Box 22591 Nairobi</td>
</tr>
<tr>
<td>27</td>
<td>Reckitt Benckister Ltd</td>
<td>P.O. Box 78051 Nairobi</td>
</tr>
<tr>
<td>28</td>
<td>Regal Pharmaceuticals</td>
<td>P.O. Box 44421 Nairobi</td>
</tr>
<tr>
<td>29</td>
<td>Sphinx Pharmaceuticals</td>
<td>P.O. Box 69512 Nairobi</td>
</tr>
<tr>
<td>30</td>
<td>Sterile Manufacturing Unit</td>
<td>P.O. Box 20723 Nairobi</td>
</tr>
<tr>
<td>31</td>
<td>Twiga Pharmaceuticals</td>
<td>P.O. Box 30172 Nairobi</td>
</tr>
<tr>
<td>32</td>
<td>Unga Ltd</td>
<td>P.O. Box 30386 Nairobi</td>
</tr>
<tr>
<td>33</td>
<td>Universal Pharmacy Ltd</td>
<td>P.O. Box 42367 Nairobi</td>
</tr>
</tbody>
</table>

*Source – [http://www.pharmacyboardkenya.org](http://www.pharmacyboardkenya.org)*
APPENDIX V: DIRECT IMPORTERS

1. Aim International Pharmaceutical Co. Ltd., Nairobi
2. A.S. Lundbeck Overseas, Nairobi
3. Al-Eman Co Ltd., Nairobi
4. Amiken Ltd., Nairobi
5. Anset International, Nairobi
6. Apomed Products, Nairobi
7. Apple Pharmaceuticals, Nairobi
8. Armicon Pharmaceuticals Ltd., Nairobi
9. Assia Pharmaceuticals Ltd., Nairobi
10. Astrazeneca, Nairobi
11. Aventis Pasteur SA (E.A), Nairobi
12. Bakpharm Ltd., Nairobi
13. Bayer East Africa Ltd., Nairobi
14. Boehringer Ingelheim, Nairobi
15. Bristol Myers Squibb Company, Nairobi
16. Bulk Medicals Ltd., Nairobi
17. C. Mehta & Co. Ltd., Nairobi
18. Cadila Pharmaceuticals (E.A) Ltd., Nairobi
19. Caroga Pharma Kenya Ltd., Nairobi
20. Cedar Pharmacare Ltd., Nairobi
21. Choice Meds Ltd Nairobi
22. Countrywide Pharmaceuticals, Nairobi
23. Dawaline Pharmaceuticals Ltd., Nairobi
24. E. Dies Kenya Ltd., Nairobi
25. Elegant Remedies Ltd., Nairobi
26. Eli-Lilly (Suisse) SA, Nairobi
27. Nairobi Europa Healthcare Ltd., Nairobi
28. Framin Kenya Ltd., Nairobi
29. Fresenius Kabi Deutschland GmbH Nairobi
30. Galaxy Pharmaceuticals Ltd Nairobi
31. Genelabs Kenya Ltd., Nairobi
32. Glenmark Pharmaceuticals Ltd., Nairobi
33. Globe Pharmacy, Nairobi
34. Goodman Agencies Ltd., Nairobi
35. Harleys Limited, Nairobi
36. HealthCare Direct (K) Ltd., Nairobi
37. High fields Pharmaceuticals, Nairobi
38. High-tech Pharmaceuticals & Research Ltd., Nairobi
39. Hawse & McGuire
40. Labored Ltd., Nairobi
41. Inters Exports Ltd., Nairobi
42. IPA Laboratories Ltd., Nairobi
43. Janet Healthcare International, Nairobi
44. Jos. Hansen & Soigné (E.A) Ltd., Nairobi
45. Karri Stores Pharmaceuticals Nairobi
46. Kamiah International Ltd., Nairobi
47. Kite (K) Ltd., Nairobi
48. Kula International Ltd., Nairobi
49. Laboratory & Allied Ltd., Nairobi
50. Lexicon Pharmaceuticals Ltd., Nairobi
51. Leo Pharmaceuticals, Nairobi
52. Lippie9t Company Ltd., Nairobi
53. Lords Healthcare Ltd., Nairobi
54. Ms Parma Mac's Pharmaceuticals Ltd., Nairobi
55. MacNaughton Ltd., Nairobi
56. Madawa Pharmaceuticals Ltd., Nairobi
57. Medical & Health Care Industries; Nairobi
58. Medisco Ltd., Nairobi
59. Medox Pharmaceuticals Ltd., Nairobi
60. Metro Pharmaceuticals, Nairobi
61. Mission For Essential Drugs & Supplies (MEDS), Nairobi
62. Modu Pharma, Nairobi
63. Mombasa Medical Stores (K), Nairobi
64. Monks Medicare Africa Ltd., Nairobi
65. Nairobi Medical Stores, Nairobi
66. Nairobi Pharmaceuticals (K) Ltd., Nairobi
67. Neema Pharmaceuticals Ltd., Nairobi
68. Nicholas Laboratories E. A. Ltd., Nairobi
69. Nijmia Pharmacy, Nairobi
70. Novo Nordisk Nairobi
71. Omaera Pharmaceuticals Ltd., Nairobi
72. Orient Pharmaceuticals Ltd., Nairobi
73. Pan Pharmaceuticals Ltd., Nairobi
74. Petterson Pharmaceuticals Ltd., Nairobi
75. Pfizer Laboratories Ltd., Nairobi
76. Pharma Specialities, Nairobi
77. Pharma Vision Ltd., Nairobi
78. Pharmacia Africa Ltd., Nairobi
79. Philips Pharmaceuticals Ltd., Nairobi
80. Plaza Pharmaceuticals Ltd., Nairobi
81. Rangechem Pharmaceuticals, Nairobi
82. Ray Pharmaceuticals Ltd., Nairobi
83. Regency Pharmaceuticals Ltd., Nairobi
84. Reliance Pharma Ltd, Nairobi,
85. Rhino Kenya Ltd., Nairobi
86. Roche Products Ltd., Nairobi
87. Sai Pharmaceuticals Ltd., Nairobi
88. Sanofi-Synthelab (K) Ltd., Nairobi
89. Schering Africa GMBH, Nairobi
90. Serian Pharmaceuticals, Nairobi
91. Shriji Chemists Ltd., Nairobi
92. Sokoro Pharmaceutical Ltd., Nairobi
93. Statim Pharmaceuticals Ltd., Nairobi
94. Sunpar Pharmaceuticals, Nairobi
95. Surgilinks Ltd., Nairobi
96. Surgipharm Ltd. Nairobi
97. Syner-Med Pharmaceuticals (K), Nairobi
98. Tealands Pharmaceuticals, Nairobi
99. Temple Stores Pharmaceuticals, Nairobi
100. 3M Kenya Ltd., Nairobi
101. Three Pyramids Company Limited, Nairobi
102. Transchem Pharmaceuticals Nairobi
103. Transwide Pharmaceuticals, Nairobi
104. Trinity Pharma Limited, Nairobi
105. Twiga Pharmaceuticals, Nairobi
106. Twokey Chemicals Ltd., Nairobi
107. Upjohn E.A, Nairobi
108. Veteran Pharmaceuticals Ltd., Nairobi
109. Wessex Pharmaceuticals Ltd., Nairobi
110. Wockaine (K) Ltd., Nairobi
111. Wockhardt (Europe) Ltd., Nairobi
112. Wyeth-Ayerst Promotions Ltd., Nairobi
113. Zadchem Pharmacy Ltd., Nairobi
114. Zeneth Pharmaceuticals, Nairobi

10th August 2005 –
Source – http://www.pharmacyboardkenya.org
APPENDIX VI: USERS OF PHARMACEUTICAL PRODUCTS

A) HOSPITALS AND NURSING HOMES

1. Aga Khan Hospital
2. Avenue Nursing Home
3. Central Medical Centre
4. Central Park Hospital
5. Central View Hospital
6. Chiromo Lane Medical Centre
7. City Nursing Home
8. Comprehensive Medical Services
9. Coptic Hospital
10. Donholm Maternity & Nursing Home
11. Dorkcare Nursing Home
12. Eastleigh Community Clinic
13. Eddiana Hospital
14. Emmaus Nursing Home Innercore
15. Gertrudes Garden Childrens Hospital
16. Guru Nanak Hospital
17. Huruma Nursing Home
18. Ideal Nursing Home
19. Inder Nursing Home
20. Jamaa Home & Maternity Hospital
21. Kabiro Health Trust
22. Kasarani Nursing & Maternity
23. Komarock Nursing Home
24. Lily Women Hospital
25. M. P. Shah Hospital;
26. Madina Nursing Home
27. Maria Maternity & Nursing Home
28. Mariakani Cottage Hospital
29. Marura Nursing Home
30. Masaba Nursing Home
31. Mater Hospital Melchevik Hospital
32. Metropolitan Hospital
33. Muteithamia Maternity
34. Nairobi Equator Hospital
35. Nairobi Hospital
36. Nairobi West Hospital
37. Nairobi Women Hospital
38. Nyina Wa Mumbi Health Hospital
39. Olive Tree Hospital
40. Park Road Nursing Home
41. Parkroad Ambulatory
42. Prime Care Hospital
43. Radiant Health Hospital
44. St Catherine Hospital
45. St James Hospital
46. St Marys Mission Hospital
47. St Odiles Dispensary
48. Samar Clinic
49. South B Hospital
50. Umoja Hospital
51. Victory Medical Hospital
52. Westland Cottage Hospital

10th August 2005 –
Source – http://www/pharmacyboardkenya.org

B) CHEMISTS AND PHARMACIES

Total – 328

10th August 2005 –
Source – http://www/pharmacyboardkenya.org
(List too long – saved in the disk)