

**A SURVEY OF STRATEGIC RESPONSES BY KENYAN
PHARMACEUTICAL FIRMS TO THE CHALLENGE OF
THE HIV/AIDS PANDEMIC**

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BY

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DECLARATION

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

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DEDICATION

To my parents: Muraa and Grace who sacrificed greatly to start me out in life with an education that did lay the foundation and a desire in my heart to achieve what they never had.

To my wife, Christine; my two children, Linda and Kelvin who are a source of inspiration for everything I set out to achieve.

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ABSTRACT

This study was conducted with the objective of finding out the Human Resource and Business Responses to the challenges of HIV/AIDS by the Kenyan pharmaceutical industry. The study sample consisted of pharmaceutical firms in manufacturing, importation, marketing and distribution and resident in Nairobi. This study attempted to investigate the strategic management responses in the Kenyan pharmaceutical industry to the pandemic.

The study had two main objectives: -

- (a) To establish the Human Resource management responses by the Kenyan pharmaceutical industry to the HIV/AIDS related challenges.
- (b) To establish Business responses by the Kenyan pharmaceutical industry to the HIV/AIDS related challenges.

To achieve these objectives, primary data was collected by use of a Questionnaire that was structured with both open and closed probes to allow both flexibility and comparability of answers given across the industry. The questionnaires were addressed to CEOs and Human Resource Directors and / or Managers.

The data collected was analysed using simple descriptive statistics. During the analysis, an attempt was made to group the companies into

three sub-samples based on ownership, type of organisation and finally size. Judging size was therefore based on number of employees and that put most firms in the 0-50 category but for six in the 51-100, one in the 111-150 and three in the more than 150 personnel bracket.

All the companies were analysed together and then by sub - samples based on ownership, type of organisation and size. Inter-group comparisons were done but in general, the differences within and between groups did not appear significant.

One of the findings from the study is that 78.6% of the Kenyan pharmaceutical firms despite knowing the benefits antiretrovirals can confer on the HIV infected are neither providing them nor do they have any care programmes for the HIV infected. 92.9% do not have any HIV/AIDS policies that would protect staff against discrimination based on their HIV status during Human Recourse procurement and during their service in the organisation. 53.6% of the organisations do pre - employment testing and all but two do not have an active HIV/AIDS workplace programmes. Even those that have, the programme is just nascent, with a team of Peer Educators in place.

Many firms had a strategy to address HIV/AIDS both as a threat (50.0%) and a business opportunity (85.7%). It seems therefore a lot more strategic thought has been given to the exploitation of opportunities the pandemic has presented to businesses than the dangers arising from access related antiretroviral price reductions and HIV/AIDS associated illnesses and deaths.

The study was a cross - sectional one and not longitudinal and therefore, conclusions drawn today can be challenged by another study later on.

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CHAPTER 1: INTRODUCTION

1.1. Background

An Organisation is a social entity that is goal directed and purposely structured with distinct and clear boundaries. To achieve its set goals it must optimally and appropriately interact with its external environment (Njau, 2001).

To interact with its environment, an organisation needs a strategy, a good fit among its activities. The success of a strategy is dependent on doing many things well in a synchronised manner (Porter, 1998). Strategic management is about decision - making and their implementation which determines whether an organisation does well, survives or declines (Jauch, 1988). Strategic management enables an organisation move into the future by aligning its resources to better address changing environmental factors.

Thompson and Strickland (1993) argue that predicting the future driving forces in an industry can be done by use of environmental scanning techniques that involve the studying and interpretation of social, political, ecological and technological changes with a view of unearthing emerging trends and conditions that may affect the industry. This empowers management to put together a strategy that takes advantage of opportunities created and reduces the danger posed by any emerging threats.

An Organisation's external environment is composed of political, social, legal, economic, technological, customer and competitive factors (Porter, 1998). Over the last twenty years the environmental terrain in Kenya has changed fast due to a virus described by Dr. Luc Montagnier of France and Robert Gallo of the USA in 1984, after doctors begun noticing clinical symptoms hitherto unseen in healthy gay men in Los Angeles, California, in 1981 (Shilts, 1988). That realization heralded in earnest the search for the culprit pathogen, later identified as a retro-virus we now know as Human Immuno-deficiency Virus or HIV and the disease it causes as Acquired Immuno-deficiency Syndrome or AIDS (Wadler, 1987). The identification of HIV as the causal factor of the noticed immune deficiency led to perfection of a blood test, ELISA (Wadler, 1987), that helped in the categorisation of the global spread of the virus (Bartlett, 1993).

Tests done on blood, semen, vaginal secretions, breast milk, amniotic fluid and urine of infected persons have shown the presence of the virus (Wadler, 1987). Epidemiological evidence has however, only shown that blood and blood products, semen, vaginal secretions, breast milk and donated organs are associated with transmission of the virus (Bartlett, 1993).

HIV has been categorised into two types, HIV-1 and HIV-2. HIV-1 is both more infectious, more widespread and kills those it infects faster. Those infected with HIV- 1 move from primary infection to full-blown AIDS and death in three to twelve years unless they adopt healthier lifestyles or use anti-retrovirals (Muraah, 2001). HIV-2 is restricted

mainly to West Africa and is less virulent with patients surviving for fifteen to twenty years (Muraah, 2001).

In about 20 years, HIV has spread from a few high risk groups to become a World wide pandemic(UNAIDS, June 2000). As at June 2000, there were 36.1 million people living with AIDS, 21.8 million dead and 13 million children orphaned World wide. In 2000 alone, 3 million people died of AIDS and 5.3 million new infections were recorded; a net growth in HIV patients' pool of 2.3 million (UNAIDS, Dec., 2000). At the end of 2001 cumulatively 40 million people were living with AIDS and 25 million dead; with 3 million deaths in 2001 alone (UNAIDS, 2001). Eastern Europe, India, China, Russia and sub-Saharan Africa led in the number of new infections. End of 2002, there were 42 million people living with AIDS, with 29.4 million of them in sub-Saharan Africa. There were 5million new infections and 3.1 million deaths in 2002 alone (UNAIDS, 2002).

The spread of the disease in most regions has been ahead of epidemiological projections. In 1991 scientists had predicted that 9 million people would be infected in Africa and 5 million die of AIDS by the turn of the 20th Century; by the end of 1999, the African continent had 23.3 million people living with the virus (Muraah, 2001). Sub-Saharan Africa that accounts for more than 70% of the global total of people living with AIDS had 28.5 million of the total by end of 2001 and 2.2 million children at risk of being HIV infected (UNAIDS, 2002).

Before 1984, HIV/AIDS was largely unknown in Kenya. In September 1984, the first case was reported in the East African Medical Journal and

was about a 34 year old African of Ugandan extraction but resident in Kenya working as a journalist, who had died in May of 1984 with all the signs and symptoms of AIDS at Kenyatta National Hospital (Obel, 1984). The report was filed to alert medical practitioners that even Africans were not exempt and therefore could contract HIV and succumb to AIDS.

In 1999, Kenya had 2.1 million adults and children living with AIDS (UNAIDS, June 2000). That was 14% of the 15 to 49 year olds and 7% of the entire Kenyan population of 28.8 million. With less than 0.5% of the world's population, Kenya had about 6% of the world's people living with AIDS (Muraah, 2001). By end of 2001, Kenya had about 2.5 million people living with AIDS, 890,000 children orphaned by AIDS and an adult prevalence rate of 15%. There were 190,000 AIDS related deaths in 2001 alone (UNAIDS, 2002). The National HIV prevalence has come down to 10.2% (NAS COP, 2002) but the reasons given for this dramatic fall are unconvincing to many a scientist. While recognising significant gains in HIV prevention interventions, in the absence of a drastic growth in population largely with HIV negative births and increased use of antiretrovirals, the drastic fall can only be explained by rising AIDS related deaths (Kiarie, 2002).

There is extensive evidence to show that HIV/AIDS will be a huge cost burden for companies (Rau, 2002). Gold Fields, S. Africa's second largest gold producer reported in 2001 that the pandemic was costing the company \$4 per every ounce of gold produced. A South African sugar mill with 400 staff reported that it suffered huge production disruptions due to HIV/AIDS related employee absenteeism, recruitment and training

of new staff (Rau, 2002). Over two years, the average employee absenteeism at the sugar mill before medical retirement was five work - weeks.

HIV/ AIDS affects the cost of doing business by increasing costs of health, life and safety insurance; shorting the period for retirement savings; increasing cost of providing medical care and death benefits; increasing costs of recruitment, training and retraining of staff (Rau, 2002). Organisations record reduced productivity due to increased absenteeism, staff turnover, declining morale, loss of technical skills and experience (Rau, 2002).

1.2. HIV/AIDS Challenge to the Kenyan pharmaceutical industry

HIV/AIDS has greatly affected firms doing business in Kenya in many ways and to different extents. HIV/AIDS has impacted both the internal and external environments of many an organisation. Internal, in the way of reduced productivity with increasing numbers of the infected at the workplace, AIDS associated absenteeism; cost of medical and funeral services; low morale and loss of highly skilled personnel that complicates strategic planning of the organisation (UNAIDS, June 2000). HIV/AIDS has also had an impact on most or all the components of many an organisation's external environment - political, social, economic, legal, technological, customer and competitive factors.

HIV/AIDS and its management have been the most politicised medical issues in history (UNAIDS/IPU, 1999), with companies - pharmaceutical - that have invested shareholder capital in finding treatments for this

disease continuously under attack for not doing enough to alleviate patients' suffering. The emotion around this disease and perceived greed or profit motive by drug companies at the expense of human life has drowned the ability of most people to better appraise the shareholders that have chosen to put their money in the pharmaceutical companies doing research in the area of HIV/AIDS, and see them as part of the solution to the HIV pandemic. Many others had the same choices to make and invested in industries that are still shielded from AIDS related criticism like in transport, food, aerospace, information technology etc.

The Kenyan pharmaceutical industry has seen regulatory and legislative change over the last ten years in an attempt to make ARVs affordable, accessible, maintain quality and ensure sustainable supply; provide incentives for the local industry to manufacture generics; ensure appropriate use by providing guidelines and training for prescribing doctors. Antiretroviral drugs get quick registration or allowed in on a named patient basis if the manufacturer is credible, to allow HIV patients have access to new therapies. End of 2002, there were over 40 antiretroviral (ARV) drug generics in Kenya (PPB, 2002). The government has also set up a well-equipped National Quality Control laboratory to test the quality of all drugs coming into the country. More aggressive and improved post marketing surveillance mechanisms have been put in place to ensure Kenyans don't get exposed to products of poor quality. The government passed the intellectual property bill in 2001, now IP Act (2001) that allows for the manufacture; importation and distribution of generics of patent protected medicines that the country may deem necessary to manage AIDS, a disease of great public health concern. The IP Act also allows parallel importation of certain

drugs on the Kenyan market if there is a significant price differential but with prior notification of the pharmaceutical holder of patent rights and within a stringent regulatory framework. Cap. 244 of the Kenyan laws has been revised to slap stiffer penalties on those breaking the law on proper importation and distribution of drugs (PPB, 2002). The government has also set up voluntary counselling and testing (VCT) centres, reviewed the Public Health Act to eventually make HIV a reportable disease and is lobbying for dependable support from international donors to offer HIV therapy to those infected.

The channels of distribution of pharmaceuticals as set out in Cap. 244 of the Kenyan laws have been altered "without registration", an evolution driven by customer demand, allowing HIV patients to fill their prescriptions at the manufacturers' warehouse or doctors' offices and not always at the retail or hospital pharmacy. NGOs like Medicins San Frontiers (MSF) have been allowed to import into the country WHO certified ARV and other generics to alleviate the suffering of the HIV infected. This has a significant impact on the sales of firms with products in the same therapeutic categories (GW Data, 2002).

Uncertainties associated with the IP Act, 2001 have had most firms worried about the level of stockholding of medicines used in AIDS management. Growth in the ranks of the infected and multilateral donor support of the government HIV/AIDS control initiatives may however herald a significant industry volume growth and pose greater supply challenges (GW Data, 2002).

Poor governance and AIDS related economic decline have left many customers with less disposable income and hence loss of purchasing power. Aggressive pricing by pharmaceutical firms has had a negative impact on margins and profitability. A shrinking private market, increasing AIDS related deaths, rising funeral expenses and insurance premiums have had a negative impact on the industry.

There has been a heightened expectation by society of support by the industry through medical camps, donations, lower prices etc. High cost of healthcare has been brought to the fore with lobbyists and activists calling for lower prices or drug donation programmes to treat the sick that can't afford to buy medicines (GW Data, 2002). The most economically active group falls in the 15-49 year range and these are also the most affected, particularly women who not only play a key role in child up-bringing but are the backbone of our agricultural economy (Daily Nation, 18.5.2003). HIV has also led to life style changes by many in an attempt to avoid contracting the disease, with declining reported sexually transmitted diseases that drove certain classes of antibiotics.

HIV/AIDS still carries a social stigma and the infected neither get adequate support from community nor are they able to access medical services without fear. This stigma has stood in the way of accurate quantification of the HIV/AIDS problem. HIV/AIDS has created a big pool of orphans and HIV infected children have been used very successfully by activists to campaign for better Access to anti-retrovirals. A caption like: “*This child can't live because of greed by the pharmaceutical industry*” is very powerful in shaping public opinion

against the pharmaceutical industry. It is an emotional argument that beats any rational explanation (GW Data, 2002).

HIV/AIDS management has heightened the need for evidence-based medical practice in Kenya. Medical laboratories are expected to do more in bacterial sensitivity pattern tracking, serology, CD4 +cell and viral load determination. Many pharmaceutical companies have been challenged to help build capacity in HIV diagnosis and monitoring of patients on treatment. Patients no longer want to wait for days to get laboratory results. Rapid HIV test kits have been introduced to quicken the process, enabling more to test and get results sooner. A sophisticated virus based testing technology has also been introduced to identify the infected earlier and do viral quantification (GW Data, 2002). There has not been without pressure for attending physicians and the industry to demonstrate resistance and subsequently grounds for therapy change.

The government has put new equipment and trained personnel in the National Quality Control laboratory to more effectively monitor the quality of imported and locally manufactured drugs (PPB, 2002). The local industry is building capacity to manufacture ARVs post IP Act, 2001 and this may herald a significant manufacturing technology transfer and competition (GW Data, 2002). Many firms in Kenya are being forced to invest in on-line links for procurement of supplies and quicker computer aided order processing, customer profiling and demand forecasting to try to ensure timely and adequate supply of ARVs and other pharmaceuticals.

There has been both heightened competition and co-operation in some areas by different players to safeguard the industry. Areas of mutual agreement include regulation and pilferage containment; disagreements on parallel imports, generics and patent protection especially between the multinational firms and local manufacturers (GW Data, 2002). Alternative treatments like micronutrients and herbal remedies have become significant substitute products. Differentiation has gone into overdrive in pricing, dose simplification, channels of distribution, presentation of clinical data, on - time delivery and the way samples or starter-packs are used especially regarding ARVs. Lobbying to have a drug included in a Hospital Drug Formulary or the firm get a favourable Corporate image has become very important.

The customer the industry is serving today is more aware about diseases and their management, more demanding of faster service and lower prices; has become an activist too, for causes he or she deems worthy of support. Customers are short - circuiting the pharmaceutical distribution chain, buying directly from the manufacturer, wholesaler, and doctor or importing directly. Customers are shopping for better discounts to save money and looking for price differentials they can exploit by purchasing to parallel export or supply any higher price market to get the difference in margin. ARVs intended for access programmes in African countries are being re-exported to Western countries that have prevailing higher prices (Redfern, 2002). HIV/AIDS has led patients to demand more confidentiality on their medical reports. Both healthcare and customer service centres are being challenged to re-design to the desired privacy (Shah, 2002).

Suppliers that provide pharmaceutical drugs and actives for drug manufacture, lines of credit, the society that provides labour and providers of transport services are raising new demands. Suppliers of finished products/ medicines are demanding more secure channels of distribution and those in insurance higher premiums for goods in transit due to risk of loss especially for ARVs (GW Data, 2002). Profit margins for pharmaceutical products are declining in Kenya and suppliers no longer regard the market as attractive. The principal multinational manufacturers and suppliers of ARVs are however, duty bound on account of social responsibility to stay engaged in the market segment if they want to exploit the other therapeutic categories.

International ARV suppliers are calling for better demand forecasting to ensure optimal stocks are delivered to the Kenyan market in light of the IP Act (2001) and the ever-changing AIDS management guidelines as more clinical data and drugs become available. Declining margins on ARVs in the Kenya market have raised entry barriers for potential suppliers of ARVs to the market (MSF, April 2003).

The Federation of Kenyan Employers or FKE has enshrined in an HIV/AIDS Policy that doing pre- and post employment HIV testing of employees is illegal (FKE, 2001). This has complicated Human Resource procurement, maintenance and release, and planning for care and support of the infected. The Human Resource Department can only plan for and provide adequate funds for AIDS management if the number of infected staff was known. Today, the need for a Corporate culture that encourages lifestyle change to reduce HIV infections is greater. Morbidity and mortality has increased among staff leading to reduced

productivity and low morale. To both employers and employees, a medical cover has become important, as has, the need to contribute towards funeral expenses. The health of staff is of worry to Management without a basis for HIV testing to enable better planning for healthcare or succession. The Management too is not except from HIV infection and therefore there is great danger of losing management experience with AIDS related early deaths. Earlier on, management was judged mostly on profitability, but in the wake of the pandemic, on both profit and social responsiveness. That has blurred what good performance constitutes (GW Data, 2002). Today also, Public Relations has become a Core competence demanded of anyone aspiring to be a Corporate Executive Officer.

Generally, shareholders invest in a firm to get a good return on investment. The pharmaceutical industry has been the most profitable, with margins above 40% but HIV/AIDS has changed all that (Mathews, 2001). Pressure to reduce prices to improve access to life - saving medicines has reduced margins and the industry is losing its attractiveness for potential investors. Those without a philanthropic heart are thinking of leaving; with the rest having to do with sub-optimal returns in the way of dividends and return on investment.

1.3. The Kenyan Pharmaceutical Industry

The Pharmaceutical industry can broadly be divided into Human and Veterinary arms. For the purposes of this study, the focus is mainly on the former; the later can be the subject of another study.

The Human Pharmaceutical industry can further be divided into the Over The Counter, Pharmacy Only and Prescription Only Medicines categories depending on products and the rules governing their manufacture, marketing, channels of distribution, access and usage (The Pharmacy and Poisons Act, 1989). The Kenyan pharma industry can also be segmented into subsidiaries of multinational and local drug manufacturers, agents, distributors and retailers; generic and brand pharmaceutical firms. Generics are imitations of the branded products whose patents have expired (Berkow, 1997) and they compete with the original brand only on price, unlike with branded generics that mount a further challenge on efficacy, packaging and branding.

The Kenyan Medical Directory (2002) has listed 137 firms involved in the importation, manufacture, marketing and distribution of pharmaceutical products. The Human arm of the pharmaceutical industry employs directly an estimated 60,000 people, provides medical information, medicines and diagnostics to enable healthcare providers better manage and treat diseases. Image Dynamics (1999), an authoritative pharmaceutical raw materials and finished products import data provider put the size of the Kenyan pharmaceutical industry at Ksh.10 Billion in 1999.

1.4. Statement of the Problem

Generally, many studies have been done on strategic management and Change (Drucker, 1998; Kim, 1997; Narus, 1996) and on the Global pharmaceutical industry such as the appraisal of performance of GlaxoSmithKline plc post the 2000 merger (Capell, 2001) and the uneven fight between the FDA and Schering-Plough Corporation over the patent of its \$3 Billion a year antihistamine *Claritin* (Webber, 2001). Webber (2001) in his article also credits Mr. Richard Kogan, the CEO of Schering-Plough and Chairman of Pharmaceutical Research and Manufacturers of America with spearheading a successful fight against the Clinton Administration on drug price controls. In his article on Corporate Strategy in the *BusinessWeek*, Arndt (2001) shares his insights into Eli Lilly's survival strategies post *Prozac* patent expiry.

Few studies have been done in Kenya, particularly in the pharmaceutical industry to quantify the HIV/AIDS challenge and responses due to the enormous stigma associated with the disease. Rarieya (2001) studied *Social responsiveness of the pharmaceutical firms to the HIV/AIDS pandemic*, Aseto (2002) the *Marketing Strategies used by Multinational Pharmaceutical Companies to Harmonise the Conflict between Maximising Profit and Maintaining Social Responsibility in the Marketing of Social related Disease Therapies* and Wamalwa (2002) the *Strategic Implication of the Enactment of the IP Bill (2001) on the pharmaceutical firms in Kenya*.

None of these studies looked at the greater impact of HIV/AIDS on the business and internal management of firms in the pharmaceutical

industry and the broader scope of strategic responses they have undertaken to better face that challenge. The Pharmaceutical Industry has medicines that reduce viral load and control AIDS related opportunistic infections, reducing mortality and improving the quality of life of HIV patients. That the Industry is fully aware of the benefits of antiretroviral therapy and has these medicines, places a bigger burden on it to provide treatment to its staff and leadership in giving care and support to the HIV infected. For some firms in the industry, antiretrovirals, antifungals and antibiotics that are greatly needed to manage AIDS make a significant part of their business and any attempts to make them more accessible have significant implications on their business performance. Their parallel importation or drastic price reduction may reduce profitability and unregulated use lead to poor compliance and resistance development.

Given that players in the Pharmaceutical Industry have both information and the medicines, and know what these medicines can do in alleviating suffering of the HIV infected, what are they doing for their staff and to meet challenges on their business from external forces bent on making AIDS therapy more accessible?

This **study** therefore meant to establish both Human Resource and Business Responses by Kenyan Pharmaceutical firms to address these HIV/AIDS related Challenges.

1.5. The Objectives of the Study

The objectives of the study were: -

- a) To establish Human resource responses undertaken by the Kenyan Pharmaceutical Industry in the wake of the HIV/AIDS pandemic.
- b) To establish the Business responses by Kenyan firms in the Pharmaceutical firms to address HIV/AIDS inspired external Challenges to their business.

1.6. Importance of the Study

The study no doubt will be of importance to the following: -

- a) To the Staff and Management of sampled firms as a method of documenting the strategies they undertook to address this, new environmental challenge HIV/AIDS has become.
- b) Other stakeholders in the Pharmaceutical Industry who can draw useful lessons on how their peers have handled these challenges for current and/ or future application.
- c) Scholars to whom the study can form a basis for further research to refine and perhaps extend the present one. It will also contribute to the available literature in the strategic management theatre.

1.7. Definition of Terms

Certain terms used in this project may require definition to aid better understanding and they include: -

- a) **Strategy**: This is a broad programme of goals and activities that assist organisations to find corporate success. It is a fundamental pattern of

present and planned resource deployment and environmental interaction that indicate how an organisation will achieve its objectives.

- b) **Environment:** Pattern of all the external and internal conditions that affect an organisation's success or survival. Environmental factors include economic, social, political, customer, technological, competitive and legal. Any changes in the environment may define a firm's challenges and opportunities.
- d) **Internal capability:** This stands for a firm's internal strengths that enable it to take advantage of opportunities and reduce the impact of threats the external environment presents; the attribute may include human resource, policies, management structure etc.
- e) **Epidemiology:** This is the study of diseases and their spread across population groups or swaths of territory.
- f) **Pandemic:** This refers to a disease that affects many people and transverse international borders.
- g) **Pharmaceutical industry:** This refers to firms in the business of manufacture, distribution, marketing and retailing of medicine and diagnostic products that enable diagnosis and treatment of diseases to restore health or improve survival.
- h) **Access prices:** Preferential, low prices relative to those in the developed world, intended to make anti-retrovirals affordable to HIV patients in the third world who need them (Woldholz, 2000). A pack of *Combivir* (AZT 300mg /3TC 150mg) X 60's wholesaled at Ksh 6,900 in Kenya and at Ksh 34, 000 in the UK in 2002.
- i) **IP Bill; Act, 2001:** This stands for the Intellectual Property Bill enacted by the Kenyan parliament in 2001 and signed into law, and in force since May 2002 as the IP Act, 2001. It gives the government authority to disregard patents held by innovator firms in respect of

innovations and drugs that Kenya may deem necessary to provide its citizens with affordable anti-retrovirals they so desperately need to manage HIV/AIDS. It is meant to allow importation and generic manufacture of ARVs and drugs intended for control of opportunistic infections that ravage the HIV infected.

j) *Virulence*: This term is used to indicate the degree or ability of an organism to infect another. An organism like a virus that is said to be highly virulent is very infectious.

1.8. Structure of the Final Paper

The Final Dissertation is structured as follows: -

Chapter 1

This gives the background on HIV, epidemiology; the pharmaceutical industry in Kenya; statement of the problem, objective of the study, importance of the study and definition of terms used in the project write up.

Chapter 2

This covers literature review on: -

- i) Change in various industries and attendant strategic responses.
- ii) HIV/AIDS driven Change in various industries and attendant strategic responses.

Chapter 3

This chapter discusses the research methodology, details about the population of the study, the sample, data description and collection and methods of analysis.

Chapter 4

This chapter covers data analysis and findings of the study.

Chapter 5

This carries the summary, conclusions, and limitations of the study and suggestions for further research.

References

Appendices

CHAPTER 2: LITERATURE REVIEW

2.0. Introduction

The study attempted to establish both Human resource and Business responses by firms in the Kenyan Pharmaceutical industry to address HIV/AIDS inspired environmental turbulence.

To lay a foundation for the study, this section reviewed literature on: -

- Various environmental changes and attendant strategic responses.
- HIV/AIDS inspired environmental turbulence in various industries and strategic responses carried out.

2.1. Various Environmental Changes and Attendant Strategic Responses

Firms are environment dependent and so are the opportunities and threats they face (Chandler, 1962; Andrews, 1971; Porter, 1998). A clear understanding of any environmental transformation is therefore important for the firm's mission, strategy formulation (David, 1997) and implementation.

Corporate environmental analysis, Diffenbach (1983) noted, could give firms the ability to better make a strategic thrust that

guarantees success. Strategy is the fundamental pattern of present and future resource deployment and environmental interaction that indicate how an organisation will achieve its objective (Hofer & Schendel, 1978). Strategy is the thread that links the firm and its environment.

The East African Breweries experienced competitive forces in the mid-1990's i.e. competition from Castle Breweries; threat of substitute products from imported wines; power of suppliers e.g. yeast supplied by Novo-Nordisk; threat of potential entrants and power of buyers leading to strategy change (Njau, 2001). To meet these challenges, the E.A. Breweries introduced new brands with unique features and set competitive prices so as to increase both sales revenue and its market share. Business process re-engineering was done to improve productivity and efficiency in the factory; clear brand positioning messages used to target specific market segments and entered the Tanzanian market (Njau, 2001).

C. Gilbert and J L Bower (2002) argue that, when a firm faces a major disruption of its markets - one that could change its business significantly, the way its managers see that disruptive force influences how they describe it and how the firm reacts and allocates resources. They argued in their HBR article on *Disruptive Change* that firms that see market disruption as a threat overreact and commit a lot of resources too soon, as Eastman Kodak did in 1996 by investing \$2 billion in R & D in digital imagery before a clear picture of which way digital imaging technology was evolving and found little success. It only found its footing with *Easysshare* digital camera in 2001 (Smith & Keeman, 2002).

Dess & Origer (1980) stated that organisations must look beyond the immediate operating environment in order to thrive and compete favourably.

Instead of just defending their existing local markets, some companies can use their success at home as a platform to extend their reach overseas, helping them reap added revenue, scale economies and new insights. These extender firms can more easily find success by targeting analogous markets - those similar to the local market in terms of consumer preferences, distribution channels, regulatory framework etc. Expatriate communities are more likely to be receptive to products developed in their country of origin (Dawar, 1999). Jollibee Foods of the Phillipines, has extended its global reach by targeting Fillipinos in other countries (Dawar, 1999).

More open global markets, faster transportation and communication may have reduced the importance of location in competition, but Michael Porter argues that the enduring competitive advantages in today's global economy lies increasingly in local attributes - knowledge, relationships, motivation - that distant rivals can not match. Global sourcing has greatly mitigated many input - cost disadvantages and so has more productive use of inputs by an industrial cluster that is continually innovating (Porter, 1998). Clusters are geographic concentrations of interconnected companies and institutions in a particular field, affect competition within countries and across national borders (Porter, 1998) and change the configuration of the value chain, with close proximity of companies and institutions in one location and repeated interaction, fostering better co-ordination and trust thereby creating advantages in efficiency, effectiveness and flexibility (Porter, 1998). The entertainment industry in Hollywood, finance on Wall Street, the Italian leather fashion industry and the California wine industry represent very successful clusters (Porter, 1998).

One of the greatest challenges a company can face is one of deciding if to diversify or not. There are rewards and risks of either decision in equal measure. Diversifying even around Key strengths is no guarantee for success but if carefully planned and executed, firms can do well (Dutton, 1997). When a firm chooses to diversify, it must determine the exact nature of its strategic assets, like say its excellent distribution capabilities that could radically improve the performance of the acquired company. The

management should focus on what the firm does better than its competitors and nothing less (Markides, 1997). In 1989, Boddington Group, a UK vertically integrated beer producer found success by diversifying in the direction of its critical strategic assets - retailing and hospitality. It sold off the brewery, acquired resort hotels, restaurants, nursing homes and health clubs while keeping its large portfolio of pubs which it had excelled in managing (Markides, 1997).

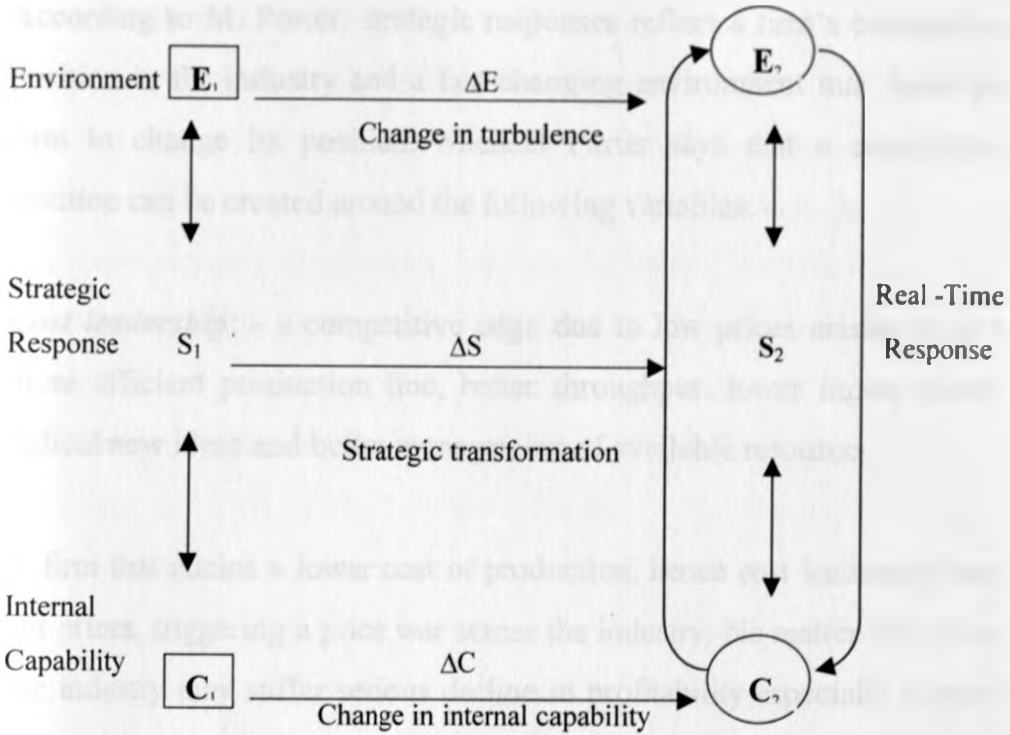
Technological changes too do present enormous challenges to firms (Cooper, 1974). When there is a fundamental technological change in an industry, firms using obsolete technology are unable to adapt and get beaten by technology developed outside the industry; the challenge may come from a firm that is forward integrating and looking for new uses for its components or raw material. Texas Instruments introduced a line of electronic watches that used its semi-conductors technology to compete with traditional mechanical watch firms and cornered the watch market in the late 1970s (Abell, 1978).

Peter Drucker (1998) calls innovation the means by which the entrepreneur either creates new wealth-producing resources or endows that which exists with the potential to create wealth. Mismatch between expectations and results can create room for innovation; for over 50 years early in the 20th century, shipbuilders and shipping firms worked to improve speed and fuel consumption to reduce costs. They achieved both speed and fuel efficiency but by 1950 the shipping industry was in deep trouble. The real costs

did not arise from the ship being at sea but while idle in port off-loading cargo. The roll-on and roll-off container ships that cut down on the time at port reduced cost of ocean transport (Drucker, 1998) restoring the shipping industry to health.

For a strategy to address a changed environment, there has to be an appropriate transformation of the firm's capability to match (Ansoff, 1999). This may involve changes in human resources, management, finance, operational systems and policies that guide the firm's strategic thrusts. The firm must strive for a good fit between the skills people have and the every day jobs they do (Trahant, 1997). A good strategy therefore is when there exists a fit between the organisation and its environment (Ansoff, 1990).

Figure 3: Relationship between the environment, strategy and internal capability (Ansoff, 1990)



Key

E_1 - Present environment

E_2 - Future environment

ΔE - Change in environmental turbulence

S_1 - Current strategy

S_2 - Future strategy

ΔS - Change in strategy

C_1 - Present internal capability

C_2 - Future internal capability

ΔC - Change in internal capability

A change in the environment from E_1 to E_2 represented by ΔE can be addressed best by change in the firm's strategy from S_1 to S_2 and capability from C_1 to C_2 .

A strategy needs to be flexible to allow room for the address of any aspect of change thrust on the firm i.e. it must be a real time response.

According to M. Porter, strategic responses reflect a firm's competitive position in the industry and a fast changing environment may force the firm to change its position. Michael Porter says that a competitive position can be created around the following variables: -

Cost leadership: - a competitive edge due to low prices arising from a more efficient production line, better throughput, lower inputs prices, radical new ideas and better management of available resources.

A firm that attains a lower cost of production, hence cost leadership may cut prices, triggering a price war across the industry. No matter who wins, the industry may suffer serious decline in profitability especially if every competitive move is based on price and countermeasure, a retaliatory price cut as it happened in the U.S Long Distance telephone industry in 1999 (Rao, 2000). To prevent a price war, a firm can reveal its strategic intent - the way it intends to match its rival's price cuts - and reveal its cost advantage that allows it to fight a price war aggressively yet remain profitable (Rao, 2000). Firms can also decide to respond to price reductions with non - price actions e.g. focus on value addition, alert customers to risk of poor quality, cede market share; selective price actions like quantity discounts and product bundling (Rao, 2000).

Differentiation: - a firm achieves a perception of uniqueness and therefore, a competitive advantage by giving its products or service certain features that make them stand out.

Firms that aim for value innovation achieve both cost leadership and differentiation. Kim and Mauborgne (1997) after a study of high growth firms and their less successful competitors concluded that the difference was in the companies' fundamental, implicit assumptions about strategy. The less successful had their management and strategic thinking driven by the idea of staying ahead of the competition. The high growth firms tried to make their competitors irrelevant by value innovation i.e. radical offerings that are a great leap in value from those of the competition as to create easily recognisable differentiation while reducing costs. Value innovation significantly cuts down on cost of advertising as uniqueness does generate a lot of word of mouth praise. Value innovation is about offering unprecedented value, not technology or competencies. It is not the same as being first to market, but being uniquely different. The Cable News Network or CNN did enter the broadcasting scene in 1980 with a unique business model that replaced the Networks' format with real time news from around the world 24 hours - a - day at one-fifth their cost (Kim & Mauborgne, 1997).

Focus - this is about the identification of a particular customer segment or need, geographical area and creating products or service that adequately serve that market. Cost leadership and/ or differentiation strategies may be adopted to lock out competitors from the segment that is identified for focused attention.

In the early 1990s, many firms adopted a broad differentiation strategy that led to greater market share with mass customisation of the product or service that served the greatest number of customers possible (Gilmore,

1997). Mass customisation also recognised segments of one i.e. that every customer is his or her own market segment with specific requirements that must be fulfilled (Gilmore, 1997; Harari, 1997). It is now becoming clear that multiple markets can reside within individual customers; every customer is in different markets at different times and places. The Newspaper industry recognised this early and Sunday newspapers have more stories and a greater variety as customers have more leisure time on Sundays to read and they cost more (Gilmore, 1997).

To maintain a position a firm has chosen, the value chain activities need to be aligned too (Porter, 1998). These value chain activities include: -

- Primary business activities like inbound logistics, operations, outbound logistics, marketing, and sales and after sales service.
- Secondary business activities like procurement, technological support, human resource management and the firms' infrastructure.

The Volvo GM Heavy trucks corporation used adaptive channels of distribution to solve customer dissatisfaction that was costing it business in the USA. Truck owners never got the needed spare parts for emergency repair on time and that forced them to look elsewhere (Narus, 1996). Volvo GM solved the problem by working with FedEx logistics services that is in the courier business. Today, Volvo GM is losing less business because of fewer stock-outs, and dealers' revenues from emergency repairs have risen significantly. Volvo GM eliminated three

warehouses and reduced its total inventory by about 15%. This more than compensated for higher freight charges due to airlifts (Narus, 1996). Whether a firm is able to meet its environmental challenges is general management dependent. The propensity and ability of an organisation to embrace behaviour that leads to the attainment of its near term and long term goals is what is called general management (Ansoff, 1999). The mentality and power positions adopted by managers constitute an optimal climate setting and it does influence the culture that develops in the organisation.

The challenges of doing business in a fast changing environment have forced management to break up bureaucratic "silos" that fragmented energy upwards in firms instead of outward to customers replacing them with boundary-less communication networks that have nurtured self-directed work groups guided by ownership and accountability (Behr, 1998). Today's leaders then must rely on core values to keep the organisation well centred and balanced. Value based leadership offers managers at all levels the opportunity to affect the organisation's culture positively and powerfully.

As the corporate constituency is built around shared goals, values and commitments; the leadership serves as the source and model of inspiration. John Gillespie, a former Vice President and CFO at Innovation luggage, Secaucus, New Jersey, spearheaded a successful organisational transformation because he committed himself to achieving specific results and living by his values even when others in the organisation were sceptical (Behr, 1998). Behr (1998) argues that the Change champion ought to be able to take risks and work without a safety net to convince others to embrace change. Instead of fear of failure

freezing one, Behr (1998) argues it should be embraced as a gift that reminds one they are completely involved. Removing fear of failure from a team allows experimentation with new concepts that may bring big rewards to the firm and quantum growth (Behr, 1998).

Marketing, as Kotler (1997) noted, does play a critical role in the organisation's strategic planning process. It has a role in environmental audit, defining competitors, business mission, market, and strategy, product, customers, value chain attributes etc. The 4Ps - product, price, promotion and place - of marketing can be part of strategic responses a firm uses to counter competition.

Some firms have stalked their competitors' most profitable products with their own and stolen the rewards; a concept called "cream skimming" (Ettore, 1997). In this the firm lets competitors do the groundwork, develop the market and customers and build the healthiest profits of its entire business. Then after assessing the situation, the company steps in with its own product or service, usually an improved version and walks away with the customers.

Globally, the Pharmaceutical industry is beginning to experience the effects of a new model of healthcare - empowered patients and healthcare workers - that is driving up the costs by increasing market segmentation, patent expiries and declining R& D productivity (Cole, 1999). The empowered patient has become better able to source for information on specific therapies, self - diagnosis and manage both disease and health environment. The industry response has been to develop products for

specific patient groups (Cole, 1999). That drug discovery is a high cost and risky undertaking, patents on blockbuster drugs expiring with rising generic pressure and new regulatory conservatism, many pharmaceutical companies are finding need to merge to realise cost reduction, global reach and improve their product pipeline e.g. Ciba - Sandoz, Glaxo - Wellcome (Cole, 1999).

2.2. HIV/AIDS Driven Change in Various Industries and Attendant Strategic Responses

HIV/AIDS that upon its description in 1981 was seen as a gay disease of minor medical curiosity (Shilts, 1988), has over a mere twenty years evolved into a pandemic with grave global, social and economic implications. HIV/AIDS is both an opportunity and a threat to firms in most industries.

The identification of any disease and characterisation of the causative agent is followed by heightened activity in the research, medical centres and pharmaceutical industry to find diagnostic tools, a cure or a drug that could reduce associated symptoms. HIV/AIDS was not any different. Globally and at the local level, blood safety depended on the effective screening for HIV in donated blood; epidemiological studies and early initiation of any disease management depended on early characterisation of an individual's HIV status. The challenge then was to produce a diagnostic kit to detect HIV. According to J. Cohen (1996), Gallo and team at the National Institutes of Health (NIH) in the USA perfected the ELISA kit for HIV testing. Abbott and Roche introduced the first commercial HIV characterisation ELISA kits soon after 1984.

The pharmaceutical industry faced another challenge of categorising viral enzymes, genetic make up and structural proteins. Various enzymes were identified as drug targets and search for drugs by the pharmaceutical industry begun in earnest. Burroughs Wellcome was the first to announce clinical success with *AZT* (Neu, 1993). Understanding the viral life cycle and mode of action of the anti-retrovirals was needed to enable doctors manage patients with HIV well (Neu, 1993). To motivate them to embrace virology, overcome stigma associated with HIV/AIDS and get convinced that illnesses and deaths associated with the disease could be reduced through drug management, Burroughs Wellcome did a lot of marketing (GW Data, 1995).

Some doctors were sent to international AIDS conferences; clinical trial data, journals and newsletters were acquired and distributed. The more information doctors got, the more knowledgeable they became and the more willing they got to try these new therapies (GW Data, 1995).

After *AZT*, other drugs followed and finally doctors had choice. According to the September issue of *Medicine Digest* (1990), the drug ddI was discovered by San Broder of National Cancer Institute and introduced into the market in 1989 by Bristol Meyers Squibb. Fast evolution of the ARVs market and growth potential forced some pharmaceutical firms without a viable HIV research effort to buy or merge with those had. Glaxo Plc bought Burroughs Wellcome in 1995 to tap into the world famous Wellcome Research Laboratories (GW Data, 1995).

The ability of the HIV to mutate fast during its rapid replication cycles led to resistant strains appearing sooner (Clementi, 1996) and this called for firms with ARVs to find a way of measuring the viral concentration in plasma to gauge both time of therapy initiation and if the viral load was reducing, a good indication that the drugs were working (Clementi, 1996); identify drugs that can be used in combination to more effectively suppress viral replication and stop viral mutations leading to better-controlled patients (Richman, 2001).

HIV/AIDS has had a great impact on the internal and external environmental factors affecting most industries. For-profit organisations in South Africa have done a lot to try to reduce the impact of HIV/AIDS on profitability (Whiteside, 2000). South African insurance firms have turned to the Doyle modelling tool to map HIV spread, prevalence and calculate its impact on costs to enable better planning (Whiteside, 1998). The mining industry has embraced information sharing on how the disease is transmitted, options available for prevention, management and an open and supportive culture that is key in adequately facing the challenge.

HIV/AIDS related high morbidity, mortality, absenteeism, low morale and high cost of medical care and funeral services have led firms like Anglo American, South Africa, to rate violent crime and AIDS as the greatest challenge to business since the death of Apartheid (Whiteside, 2000). Anglo-American (E. A. Standard, 7.8.2002) has also initiated antiretroviral programmes for the HIV infected employees. Gold Fields, South Africa, spends more than SAR. 33.5 million on the HIV prevention, education, and other support activities for its 48,000 workers,

their families and the community that interacts with its miners (Wilkinson, 2001).

At Volkswagen Brazil, in 1996, among its 30,000 employees AIDS largely accounted for the high treatment costs, illnesses, absenteeism and shortened life expectancy. Start of an AIDS care programme that included preventive measures like condom provision and treatment saw a 90% reduction in hospitalisations and 40% in AIDS related costs three years later (UNAIDS, June 2000).

Firms are allowing the HIV infected to stay on and work for as long as their health can allow. Bajaj Auto Ltd, India, that makes motor scooters has a prevention and care programme for HIV patients; adjusts workload for those too weak to do their previous chores (Global Business Coalition on HIV/AIDS, 2002). Workplace programmes too target managers and business leaders as individuals to reduce their personal risk to HIV infection as managers too are not except from HIV infection. "The HIV/AIDS pandemic poses one of the greatest challenges to business development in the 21st century. The pandemic will claim some of the *best business leaders* and *managers* and a great number of workers at all levels of the production system" - S. Kramer (Joseph, 2001).

In Kenya, the Federation of Kenyan Employers or FKE has mandated that firms not carry out pre - and post employment HIV testing of employees as this would violate their constitutional and/ or human rights (FKE, 2001). This has complicated the work of HR managers and organisations. The HR Directors and managers are using the National prevalence data to project the number of those infected in the workplace and budgets to cover care and support of the infected.

Market Research shows pharmaceutical companies are more unpopular today than cigarette manufacturers and this has PR executives at the big cigarette companies excited (Chataway, 2000). Many CEOs of pharmaceutical companies are undertaking Media and PR training to better handle the Press and other publics. HIV/AIDS has brought market forces into conflict with developing countries' needs that easily fall in the social responsiveness realm. Criticised that his company would rather find a cure for a bold American than a dying African, Mr. F. Gros, Aventis pharmaceuticals agreed: "unfortunately we have a financial commitment to our shareholders. Therefore we have to focus on the \$ 1.5 billion blockbuster drugs for the cardiovascular, metabolic and anti - infection market in the more developed countries" (Chataway, 2000).

The pressure on firms to demonstrate they are not only driven by profit motives has however intensified. Today, managers within firms and between firms in the pharmaceutical industry are competing to show off projects they have undertaken to support HIV/AIDS control efforts in the communities they operate. Both society and the shareholders are appraising management and the image of the operating unit on it. Bristol Myers Squibb committed to donate \$ 100 million over five years to bolster HIV control programmes in Africa in 2002 (Woldholz, 2000); Boehringer Ingelheim has given Nevirapine to the Kenyan government for the control of mother to child transmission of HIV (Daily Nation, 9.8.2002). Merck & Co., joined up with the Gates' Foundation and the government of Botswana in a \$ 100 million effort to revamp the country's healthcare system to better address the HIV/AIDS epidemic (Mabry, 1999). Glaxo Wellcome offered a preferential price on Combivir of \$2 a

day to patients in the third world (Woldholz, 2000); later revised to 90 US cents a day in April 2003 (Redfern, 29.4.2003).

" HIV/AIDS should be one of the major factors to consider when deciding on what shares to buy. If a company has ignored the impact the virus will have on its staff - and its profits - then should it not be considered a risk for your portfolio" (Cilliers, 2001). HIV/AIDS prevention and care programmes are a new Benchmark against which society and shareholders are appraising many firms. A robust HIV/AIDS strategy is essential for long term survival for all in the private sector (Cilliers, 2001).

The pharmaceutical industry has for years had one of the highest return on investment for its shareholders but that is changing in the wake of HIV/AIDS (Mathews, 2001). Pressure to reduce drug prices has been enormous. The industry is offering ARV access prices in the third World, that are 60 - 90% lower than those in the richer Western countries to enable more patients to get anti-retrovirals they so desperately need to halt disease progression to full blown AIDS. Glaxo Wellcome, as part of the Five - Pharmaceutical - Company Access Initiative offered its drug, Combivir, that sells for \$16.5 per day in the USA to the third World countries at \$2 daily (AP, 11.5.2000). Jean Pierre Garnier, GlaxoSmithKline Plc CEO and shareholder, told employees via satellite link on the 11th January 2001: " The Pharmaceutical industry today sells 80% of its products to 20% of the world's population. I don't want to be the CEO of a company that caters for the rich ... I want those medicines in the hands of many more people who need them " (Powers, 2001). An institutional investor, Friends Ivory and Sime, with £ 1 Billion in

GlaxoSmithKline stock had called for an initiative in 2001 by GSK to combat the AIDS crisis in Africa (Powers, 2001). The challenge for the shareholders remains one of finding a business model via the management team that allows firms to increase ARV access in the third world, make profits and invest millions of dollars in R & D to find new therapies (Powers, 2001). Brand building in the other non HIV therapeutic categories is gaining attention.

HIV/AIDS has led to information and knowledge explosion. Customers know a lot about HIV/AIDS disease, its management and prevention, prices of ARVs and where to get medical care than any other disease in the past. When Protease Inhibitors were introduced in Europe in late 1995 and 1996, adoption of these new therapies by doctors and HIV patients was immediate unlike for say, osteoporosis that affects 12 million people in Europe (Olsen, 2002). The customer the pharmaceutical industry is facing today is more aware, more militant, an activist and more demanding for better prices and service. The customer's access to price and pricing information has led to their driving a hard bargain and playing one supplier against another to get the best price (Africa Health, 1997). Firms in the industry have honed their lobbying, negotiating and product positioning skills to win the hearts and minds of customers and access activists.

Some customers hoping to cash in on the preferential ARV access prices in the third world have begun buying and shipping back these stocks to the richer western countries where ARV prices are high. A consignment of GSK ARVs worth \$14.8 million was arrested in the Netherlands in 2002 after making its way from Africa (Redfern, 2002). To stop this re-

export, the pharmaceutical industry in Kenya has restricted the amount a customer can buy unless more data on the users is given and the number of centres ARVs are dispensed are now restricted and closely monitored. Market specific pills and packs are being considered too by key players in the ARVs theatre (Thomas, 2002).

The World Bank president, did recognise in 2000 the challenge Africa faced in providing adequate care to the infected when less than 5% of its HIV infected people knew their status: "How can you treat people who are not aware they are infected" - James Wolfensohn (Woldholz, 2000). The need by governments to get HIV/AIDS data and individuals to know their HIV status has spurred growth in the diagnostics industry. Firms with products or technologies in this category like Roche and Abbott have taken steps to fully exploit this market segment (Cohen, 1996).

Insurance involves sharing by the many risks of a few. HIV/AIDS has increased the number of people at risk of illness and death in the third world. In Africa, the South African Insurance industry pioneered covers for the HIV infected. It was the first in Africa to appreciate the potential impact of the epidemic on mortality rates and hence its earnings. It created a pool of actuarial scientists to design models and tools to reassess their risk profile, allowing a redesign of products on offer (Whiteside, 1998).

The insurance industry's reaction in the United Kingdom to the 'arrival' of AIDS was to impose a general increase in the premium by up to 150% for single males. This was to cover for new risks and potential effect on their funds if claims were made by the insured who might contract the

disease. Later, AIDS exclusion clauses were introduced in the medical expenses and permanent health policies (FitzSimons et. al, 1995).

In Kenya, suppliers of medical and life insurance are demanding both annual HIV tests and higher premiums to cover HIV infected employees in most industries and the pharmaceutical industry is not except. The Association of Kenyan Insurers' Chairman, Mr. David Ngugi, told an FKE organised HIV/AIDS workshop for the insurance industry that claims had gone up by 20% due to HIV/AIDS (The People, 10.10.2001). Some local medical insurers are cutting back on services to achieve cost containment and generic medicines are being recommended. Upon payment of higher premiums, other medical insurers like, Strategis Health Kenya, are providing medical cover for the HIV infected. Strategis Health Kenya is running medical schemes for B.A.T Kenya, E.A. Breweries (Strategis Health Kenya, 2003).

In the United States and other countries, HIV/AIDS related litigation is becoming commonplace and that has led to due diligence by all interacting with the HIV infected in some way. The areas of HIV/AIDS litigation include testing and reporting; privacy, the duty to warn, and the right to know; physician standard of care in prevention and treatment; and discrimination and access to health care (Gostin, 1998).

The World Bank predicts AIDS could cut the rate of annual per capita income by 0.3% in the ten worst hit countries in sub - Saharan Africa. Ironically it is the countries that are doing better economically like South Africa, Botswana that may suffer more (Bunce, 1997). The loss of a wife in an agriculture dependent, HIV infected and affected household in

Zimbabwe was accompanied by a 54% drop in maize crop production (UNAIDS, June 2000). The spouse or sibling who remains healthy may stop working to stay around home to look after the ailing partner or sibling with loss of food security, income and hence buying power.

Farmers in HIV/AIDS ravaged communities in Bukoba, Tanzania, that are experiencing labour shortages have adopted more traditional food crops like cassava and sweet potatoes because of their hardiness and tolerance of some degree of neglect (Mutangadura, 1999). In the smaller-holder farming sector, sickness or loss of any adult is a big blow to the productivity and survival of the household. The agricultural industry has therefore developed or adapted technologies these households can exploit to keep or improve their standard of living. For the HIV patients, keeping large animals for protein can be very demanding. Keeping small stock is the alternative. Rabbits and chicken can be kept together with rabbits on the upper deck. This makes it less time and energy consuming, reduces feed waste as what falls from the rabbits the chickens feed on. Both require very little feed yet are very good sources of protein and are small enough to reduce waste when they are harvested for meat (Mutangadura, 1999).

HIV/AIDS is one of the most politicised diseases in modern times. The 19th Inter - Parliamentary Union conference in Windhoek, Namibia popularly called the Windhoek IPU Resolution on HIV/AIDS was a political attempt to curb the HIV pandemic. The resolution urges parliamentarians to demonstrate their political commitment for an effective response to the pandemic through intensifying their legislative, budgetary and oversight functions (UNAIDS/IPU, 1999). Among the

recommendations was, enabling equitable access to new treatments especially in the developing countries that are disproportionately affected by the pandemic. Legislation has been enacted in countries like South Africa to ensure widespread availability and quality of HIV related goods and services. South Africa and many other countries have created fast track registration of drugs for HIV/AIDS treatments (UNAIDS/IPU, 1999).

The multinational pharmaceutical industry in South Africa went to court in 2001 to challenge legislation by the South African parliament to allow the manufacture and importation of patent protected antiretroviral medicines for the HIV patients whom branded products were out of reach due to high cost. The compulsory licensing law covering essential medicines was passed by the South African parliament in 1997 (Rosenberg, 2001). The emotions whipped up by the case, with daily demonstrations forced the firms to withdraw the case (Samantha, 2001). GlaxoSmithKline plc gave up its patent rights for its leading ARV medicines in South Africa i.e. AZT, 3TC and Combivir to a local generics manufacturer, Aspen Pharmacare, that already had rights to BMS products (E. A. Standard, 8.10. 2001). The multinational pharmaceutical firms in Kenya lobbied a lot but did not attempt to litigate against a similar bill introduced by the Kenyan parliament in 2001(IFPMA, 2001). The South African experience had clearly shown that victory lay in the perceived defeat. The South African government that had presented the multinational pharmaceutical firms as the villain, eventually had to admit to a shocked national constituency of the HIV/AIDS stakeholders that it neither had convincing safety data nor the

financial resources to provide ARVs of whatever category to the HIV infected (Chege, 2002).

Society is holding most of the industries' feet to the fire over employment, retention and care of the HIV infected staff. Most societies now consider the only medical criterion for recruitment and termination of employment as fitness to work - HIV infection does not in itself constitute lack of fitness to work and especially if treatment is offered (FitzSimons, 1995). Many firms like the Gold Fields of South Africa are running HIV/AIDS workplace programmes for employees and working with surrounding communities to reduce HIV infection of their prospective future employees (Wilkinson, 2001).

Society has come to expect and loudly called for more equitable provision of ARVs for the HIV infected especially in the poorer third world countries (UNAIDS/IPU, 1999). The pharmaceutical industry's response has been one of two - tier pricing that allows lower prices in the third world and targeted donation programmes (Powers, 2001).

Activists have taken on governments to provide ARVs to the HIV infected in society. South African AIDS activists threatened to demonstrate to try to force the South African government to provide ARVs to the HIV infected to prevent the 600 deaths occurring daily (E.A. Standard, 21.3.2003). They had earlier taken the South African government to court to force it to provide ARVs to reduce mother to child transmission and won. The S. African government appealed the ruling by the High Court (Daily Nation, 20.12.2001) claiming it did not

have the money to provide ARVs and safety of Nevirapine was not proven beyond doubt.

Evolution of technology in the HIV/AIDS theatre especially in diagnosis, quantification, drug discovery, prevention, treatment and vaccine development has been swift (Cohen, 1996) in relation to many other diseases.

That 90% of the HIV infected live in the third world has called for any R&D thrusts and new technologies to be globally relevant and affordable and product evaluation to be done together with the developing countries (Cohen, 1996). This calls for innovative partnerships between the developed and developing countries that could also guarantee development of accessible HIV vaccine and vaginal microbicides.

Significant technology transfer has taken place to enable the third world to contribute better towards finding appropriate prevention interventions like vaccines, and treatments. The Kenya AIDS Vaccine Initiative or K.A.V.I is a collaborative research effort between the University of Nairobi and Oxford University of the United Kingdom (Redfern, 29.1.2002). The U.S Ambassador to Kenya, Mr. J. Carson opened recently a CDC funded HIV/AIDS research centre at KEMRI (E.A. Standard, 18.3.2003).

The threat posed by HIV/AIDS on society, initial opportunity the disease presented to reap benefits from any marketed HIV/AIDS diagnostic tools and drugs and fast evolution of technology in this theatre created intense competition among researchers and pharmaceutical companies (Cohen, 1996). FDA approval and introduction of AZT in 1997 was followed by

the entry of ddI from Bristol - Meyers Squibb. Entry of a diagnostic tool with HIV quantification ability, HIV-1 PCR, made by Roche Molecular Systems in June 1996 was followed in the same year by the introduction of a product with the same capability called bDNA assay by Chiron (Cohen, 1996).

December 1995 marked the entry of a new class of antiretrovirals, protease inhibitors, with the introduction of Saquinavir by Roche. Between December 1995 and March 1996, according to IMS America Saquinavir had grossed \$35 million in the USA alone. Its explosive growth was however checked by the March 1996 introduction of competitor products Indinavir and Ritonavir by Merck and Abbott laboratories respectively (Cohen, 1996). The request for FDA approval of Ritonavir and Indinavir was separated by a day 29.12.96 and 1.3.96. Ritonavir was approved on 1.3.96 and Indinavir 14.3.96 (Cohen, 1996).

To beat ARV combinations born of superiority brought on by clinical trials and recommendation by the Centres for Disease Control (CDC), firms whose products did not feature prominently in the CDC guidelines offered price concessions and trial data that tempted doctors and patients to try them sooner. When Indinavir/3TC/AZT regimen was the first choice on the CDC guidelines and was widely used in late 1990s, Bristol-Meyers Squibb offered a concessionary price and its own clinical data that seemed to show AZT hindered activity of their product, d4T, that formed the second line in the CDC guidelines and doctors begun using it more frequently with 3TC and Indinavir (Script, 6.2.1998). Then the price war started and ARV prices in Kenya too were adjusted downwards every three months. Combivir that was wholesaling at Ksh.20, 500 per

pack of 60's in 1998, is currently wholesaling at Ksh. 6,900 in the private sector and Ksh.1, 890 in the public sector (Daily Nation, 18.5.2003) and the price is still destined to decline further.

3.1.2. Resource usage

The study was a survey of current Management Information Systems, Marketing and Distribution related problems and a search for solutions. ITVAED's initial challenge in the primary and secondary schools was to assess how Kenya's current educational curriculum and content framework would affect 10 million in 1998. It was assumed that the country's primary schools would be 10,000, 100,000 and 1,000,000 with significant investments in technology. It is difficult to establish the number of schools of these types in Kenya, but the total number of schools is estimated to be 10,000.

3.1.3. Population

The study was conducted in the primary, secondary, and tertiary schools. The study was conducted in 2002, 2003 and 2004. The population of the study was estimated to be 10,000.

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CHAPTER 3: RESEARCH METHODOLOGY

3.1. Research Design

The Study was a survey of Kenyan Pharmaceutical manufacturers, Importers, Marketers and Distributors of human medicines with a view of establishing HIV/AIDS related challenges to the industry and attendant strategic responses by these firms. Kenya imported pharmaceutical raw materials and finished formulations worth Ksh. 10 Billion in 1999 (Image Dynamics, 1999). It is estimated that the industry provides employment to 60,000 people and is associated with significant manufacturing technology transfer. In addition to providing medicines, it is a significant medical information provider to health care workers.

3.2. Population

The 137 firms involved in the manufacture, importation, marketing and distribution of human medicines (Express Communications, 2002) constituted the study population of interest. These firms were categorised into: -

1. Multinational Corporations like GlaxoSmithKline, AstraZeneca, Aventis, Roche etc. They are either represented by a subsidiary or a scientific office, have a big R&D thrust globally and do market mostly innovator or patented medicines. There are 55 firms in this category.

2. Generic firms that export to Kenya like Cipla, Apotex, Candila etc. There are 48 companies in this category.
3. Local manufacturers like Cosmos, Regal, Lab & Allied, Elys etc. The Medical Directory lists 18.
4. Importers & Distributors like Surgipharm, Phillips, Assia etc. There are 16 listed firms.

3.3. Sampling

About 90% of the firms in the population of interest are in Nairobi and therefore any findings arising from the study of firms in Nairobi was expected to mirror industry trends and its responses to the HIV/AIDS challenge. I therefore took all Four Categories listed in the Population section and resident in Nairobi as the Sample. 80 Questionnaires were administered to pharmaceutical companies in Nairobi, 28 of them were duly filled and returned to me or I collected.

3.4. Data Collection

The Primary Data Collection Questionnaires had Closed and Open probes. This was done in an effort to ensure both comparability and flexibility, thereby maximising the value of information gathered in arriving at certain conclusions that define individual and/ or industry trends. The questionnaire was not pre - tested after development. The

Questionnaire was in three broad parts - Section A, B, C and all with sub - sections.

Section A attempted to collect General information, Section B appraised the Impact of HIV/AIDS on the Organisation's Human resource and Business, and Section C the attendant Strategic responses by the firm. The Questionnaire was structured as shown below: -

Section A: General Information

Part. 1: Personal Data

Part. 2: Organisational Details

Section B: HIV/AIDS Related Impact

Part 1: Internal Management

Part 2: Business

Section C: Strategy

Part 1: Internal Management

Part 2: Business

The CEOs of the selected organisations were particularly targeted to answer questions on the Business responses and HR Directors or Managers on Human resource management responses. The **Drop - Pick** later method and **E-mail** was used where possible to administer the Questionnaires.

3.5. Data Analysis Techniques

Descriptive Statistics were used for Data Analysis. These included tables, summary statistics, frequencies and percentages. Cross tabulations were used to measure the overall ranking of initiatives undertaken by different firms to appraise for trend and significance of each across the industry.

CHAPTER 4: FINDINGS AND DISCUSSION

4.0 Introduction

The completed questionnaires were coded by allocating each a number from M 001 to M 028 to facilitate statistical analysis, ease of reference and also help maintain confidentiality that all respondents cherished. The sample studied consisted of pharmaceutical firms in Nairobi involved in manufacturing, importation, marketing and distribution of healthcare products.

As mentioned in chapter 3, the data obtained was analysed using descriptive statistics. These included tables, summary statistics, frequencies and percentages. Cross tabulations were used to measure overall ranking of interventions by difference firms to meet the HIV/AIDS challenges

The sampled pharmaceutical firms whose questionnaires came back were compared on all the variables under study. Initially the whole group was analysed and then later the three sub - groups arrived at based on ownership, type of organisation and size. Both the number of employees and sales turnover were to be used to gauge size but sales turnover as a measure of size had to be abandoned because only five companies disclosed theirs. Number of employees was therefore used to try to gauge size. Analysis of the questionnaires is presented in the preceding tables and narrations.

4.1. Profile of Organisations Studied

The firms targeted for study are all in the pharmaceutical business and all located in Nairobi. They had to be in manufacturing, importers, agents of foreign principals and distributors of human medicines in Kenya. Whether they were wholly foreign, local, joint ventures or scientific offices was of interest to enable any correlation between strategic responses to HIV/AIDS and ownership to be appraised. Both the number of employees and the last four years' sales turnover were sought for through the questionnaire to help categorise firms on size. To help in determining which business segment the firm is in, the respondents were asked to choose from the following business categories: antibiotics, antiretrovirals, antimalarials, anti-ulcers, pain killers and dermatologicals and also the percentage of sales turnover the selected category contributes.

The character of the firms these respondents worked for in terms of numbers of employees (Table 1), type of organisation (Table 3) and ownership (Table 4) is presented below.

Table 1: Number of employees

No. Employees	Frequency	Percent
0-50	18	64.3
51-100	6	21.4
101-150	1	3.6
Over 150	3	10.7
Total	28	100.0

Source: Research Data

As shown in the table above, the firms investigated had relatively small numbers of workers with majority (64.3%) having less than 50 employees and 21.4% with 50 to 100 staff.

Generally, that the pharmaceutical firms are low - volume high - value product companies and the decline of the manufacturing sector in Kenya may explain the few people who work for these entities. The merger of firms in the industry is accompanied by elimination of overlapping jobs often with reduction of workforce by half (GW Data, 2002).

Downgrading of a vertically integrated local subsidiary of a multinational to a scientific office brings down the number of employees by nearly two thirds (GW Data, 2002)

Table 2 : Years of service with the organisation

Years	Frequency	Percent
0-5	14	50.0
6-10	8	28.6
11-15	3	10.7
Over 15	3	10.7
Total	28	100.0

Source: Research Data

50% of the respondents had served in the companies for less than 5 years. Only 21.4% had stayed in the organizations for over 10 years. The details of this information are shown in the table above.

The industry attracts both pharmacists who are highly mobile especially in marketing and the industry is defined by annual appraisal of personnel on performance with low achievers being forced out. Downgrading by foreign firms to scientific office status over the last few years has seen the older staff leave and the younger take over.

Table 3 : Management/ownership of the organisations

Management	Frequency	Percent
Wholly local	18	64.3
Wholly foreign	9	32.1
Local and foreign joint venture	1	3.2
Total	28	100.0

Source: Research Data

In terms of management/ownership of organizations, majority (64.3%) of them were wholly local, 32.1% being wholly foreign while 3.2% were a local and foreign joint venture as shown in the table above.

The control of the Kenyan pharmaceutical business by the local firms in numerical terms is as a result of recent local startups, withdrawal of foreign firms like Torrent Pharmaceuticals of India and merger of firms like Glaxo Wellcome and SmithKline Beecham reducing the number of foreign entities greatly thereby raising the percentage of local companies (GW Data, 2002).

Table 4 : Type of organization

Type of company	Frequency	Percent
Local manufacturer	7	25.0%
Importers/Agents	15	53.6%
Distributor	11	39.3%
Other (specified)	1	3.6%

NB: respondents were allowed to select more than one category

Source: Research Data

Analysis on the type of organization showed that 53.6% of the firms were Importers/ agents, 39.3% Distributors, 25.0% Local manufacturers while Scientific offices constituted 3.6%.

The above finding is consistent with the reducing attractiveness of Kenya as a manufacturing site post liberalisation of the Kenyan economy in 1997 (Njau, 2000). GlaxoSithKline moved its manufacturing operations to Egypt in 2002 (GW Data, 2002). Firms in the pharmaceutical import business are sourcing products from foreign low cost producers for the local market. Some also do distribution. Distributors sell to retail pharmacies and hospitals that fill prescriptions for end users, patients. Local manufacturers are local firms that are engaged in the production of medicines for local consumption or export to neighbouring countries. A scientific office, usually created by a multinational firm, does marketing of products that the appointed agent/importer supplies to the market.

Table 5 : Therapeutic categories representing largest part of business

Drug category	Frequency	Percent
Antibiotics	16	57.1%
Antivirals	5	17.9%
Anti-malarials	5	17.9%
Anti-ulcers	0	.0%
Pain Killers	6	21.4%
Dermatologicals	2	7.1%
Others (specified)	4	14.3%

NB: respondents were allowed to select more than one category

Source: Research Data

Antibiotics represented the largest category at 57.1% and both Antivirals and Antimalarials at 17.9% each. It appears infectious diseases represent the greatest Business opportunity. This is consistent with disease patterns in the tropics and developing countries. Antibiotics are drugs used to treat bacterial infections.

4.2 HIV/AIDS as a Business Issue

HIV/AIDS is a business issue due to its impact on productivity, and company performance because of associated absenteeism, cost of healthcare, loss of technical skills due to deaths and cost of staff replacement, training and retraining (Rau, 2002). For firms with antiretrovirals, access related pressure to reduce prices has seen many sell products at prices below cost (GW Data, 2002). For others HIV/AIDS presents a huge opportunity to sell antibiotics and antifungals for opportunistic infection control. To find out how firms in the industry perceive HIV/AIDS, questions relating to whether HIV/AIDS is either or both an internal and external opportunity and /or threat was included in the questionnaire and the results are presented in Table 6,7 and 8 below.

Table 6 : How HIV/AIDS is taken in the business (Business)

Perception of HIV/AIDS	Frequency	Percent
An external business threat	4	14.3
An external business opportunity	4	14.3
Both external business threat and opportunity	18	64.3
Total	26	92.9
Missing	2	7.1
Total	28	100.0

Source: Research Data

64.3 % of respondents thought HIV/AIDS is both an external threat and opportunity. 14.3 % saw it only as an external business threat and 14.3 % as a business opportunity.

HIV/AIDS is an external business threat because of access related price reduction pressure for those with ARVs and death of customers for other pharmaceutical products. It is an opportunity for those with medicines to manage opportunistic infections.

Table 7 : How HIV/AIDS is taken in the business (HR)

Perception of HIV/AIDS	Frequency	Percent
An internal management threat	15	53.6
An internal management opportunity	1	3.6
Both an internal management threat and management opportunity	5	17.9
Total	21	75.0
Missing	7	25.0
Total	28	100.0

Source: Research Data

HIV/AIDS is obviously a threat to business management with 53.6 % agreeing that it is an internal management threat, 17.9 % consenting it is both an internal management threat and an opportunity. HIV/AIDS is an internal management threat due to challenges it poses to Human resource procurement, retention and cost of replacing those that are too sick to work or are dead. HIV/AIDS related absenteeism, and reduced morale have a great impact on productivity (Rau, 2002). Firms need to proactively make interventions early to protect their best asset, the Human resource.

Table 8 : Whether there has been any attempt to measure the impact of HIV/AIDS

Response	Frequency	Percent
Yes	7	25.0
No	21	75.0
Total	28	100.0

Source: Research Data

Though there is a growing consensus that HIV/AIDS is a business issue, most firms (75.0%) have not endeavoured to measure its impact on the business as shown in the Table above.

Unless firms can measure impact, they will never be able to quantify the loss or gain associated with HIV/AIDS and that will lead to sub - optimal strategy formulation and implementation due to poor justification of any requested resources.

4.3. Perceived Impact of HIV/AIDS on Human Resource

At 10.2% National prevalence (NASCO, 2002), HIV infections present a challenge to Human resource managers in any organisation in Kenya. It complicates Human resource procurement, retention and release back

into the community due to policies enacted and meant to protect the rights of the HIV infected (FKE, 2001). To see the challenges organisations are facing, the respondents were asked to answer questions in the questionnaire on how HIV has complicated HR management, affected medical and insurance costs, absenteeism, productivity and staff morale and if they have had an HIV infected staff. The results are as shown in Table 9, 10, 11, 12, 13,14 and 15 below.

Table 9 : Whether HIV/AIDS has complicated human resources management

Response	Frequency	Percent
Yes	13	46.4
No	15	53.6
Total	28	100.0

Source: Research Data

Looking at the percentages of the responses above, 46.4% of the firms' managers agree that the issue of HIV/AIDS has complicated human resources management. The stigma, low morale, cost of care, illnesses and absenteeism associated with HIV/AIDS has made the work of Human resource managers more complicated. That ILO and FKE codes of conduct for employer groups discourage pre - and post employment screening for HIV makes it harder for Human resource managers to

budget. HIV prevalence in the community from which the firms are sourcing staff is very high at 10.2% (NAS COP, 2002). This makes Human resource procurement very difficult unless the organisation has a policy that provides care and support of the HIV infected. For organisations with such policies and workplace programmes, one's HIV status is irrelevant; being up to the task is more important. ARVs have pushed HIV/AIDS into a chronic disease for those who can access them. For planning purposes, Human resource managers use the National prevalence or do their own non - linked HIV prevalence audits with help from HIV/AIDS consulting organisations. 53.6% of respondents said HIV/AIDS has not complicated their Human resource management. This could be because they have a policy of releasing staff back into the community early on medical grounds or have very few staff such that the odds of an HIV infected person being in the team is very low.

Table 10 : Whether the organisation has ever had HIV infected staff

Response	Frequency	Percent
Yes	6	21.4
No	21	75.0
Total	27	96.4
Missing	1	3.6
Total	28	100.0

Source: Research Data

On whether the organizations have had HIV infected staff, most (75.0 %) said 'No'. This response can be valid only if the organizations have

conducted HIV tests or pre-employment testing. The stigma associated with HIV/AIDS could be the reason for few organisations admitting they have HIV infected persons. A respondent may feel saying 'YES' means his/her organisation has a big problem or their prevention programmes are not working.

Table 11: Rating the impact of HIV/AIDS on medical costs

Rating	Frequency	Percent
Lowest	14	50.0
Low	3	10.7
Average	4	14.3
Highest	1	3.6
Total	22	78.6
Missing	6	21.4
Total	28	100.0

Source: Research Data

Many firms (60.7%) do not perceive HIV/AIDS to have impacted on their medical costs significantly. They rated the impact on medical costs below average. This is unusual because over 50% of hospital bed occupancy in Kenya (NAS COP, 2002) is due to AIDS related conditions. But again, it takes about five to ten years for HIV to progress to AIDS (Muraah, 2001) and before one gets full - blown AIDS cost of care is low. Stigma may also have discouraged people from doing the HIV test to enable them access ARVs even where they are availed and therefore

what all patients are being treated for is opportunistic infections. The firm may be capturing these costs without relation to HIV/AIDS due to inability to see the link or doing that, deliberately because of insurance purposes. HIV/AIDS is a chronic disease and therefore not covered by insurance and costs may rarely show in the organisation's books as HIV/AIDS related.

Table 12 : Rating the impact of HIV/AIDS on Insurance costs

Rating	Frequency	Percent
Lowest	7	25.0
Low	10	35.7
Average	4	14.3
Total	21	75.0
Missing	7	25.0
Total	28	100.0

Source: Research Data

Again, the impact of HIV/AIDS on the insurance costs has not been significant according to 60.7% of respondents who rated it below average. One of the respondents said while the premiums may be higher for the HIV infected, many senior employees do not go for HIV tests even when mandated by insurance. They opt to take a lower cover, with a benefit ceiling of Ksh. 1.2 million, that is allowed without submitting for an HIV test. They refrain from getting a cover that would guarantee beneficiaries in the event of death three times their annual salary because of fear of the HIV test. This could be due to fear of associated stigma and lack of confidentiality.

Table 13 : Rating the impact of HIV/AIDS on absenteeism

Rating	Frequency	Percent
Lowest	16	57.1
Low	2	7.1
Average	2	7.1
High	3	10.7
Total	23	82.1
Missing	5	17.9
Total	28	100.0

Source: Research Data

Going by the responses shown above, HIV/AIDS seems to have a low impact on absenteeism. 64.2 % rated it below average. This could be consistent with the fact that only two respondents of the twenty eight said they have HIV positive staff in the organisation. Lack of openness about HIV /AIDS and stigma may discourage even those that know their status from sharing it with anyone in the organisation and therefore making it impossible to capture HIV/AIDS related absenteeism as such.

Absenteeism may be reported as related to pneumonia, typhoid etc and not HIV/AIDS although HIV infection may be the predisposing factor. Retrenchments have been common in the pharmaceutical industry and if the sickly have been targeted for retrenchment on medical grounds, health related absenteeism can be low.

Table 14 : Rating the impact of HIV/AIDS on Productivity

Rating	Frequency	Percent
Lowest	15	53.6
Low	1	3.6
Average	3	10.7
High	3	10.7
Total	22	78.6
Missing	6	21.4
Total	28	100.0

Source: Research Data

The respondents seem to perceive HIV/AIDS as having a low impact on the organisations' productivity with 53.6 % citing the lowest and only 10.7 % stating it has had a high impact. This may be consistent with findings in Table 8 that only 25% of firms have tried to measure impact of HIV/AIDS on the business. 21.4 % of respondents rated impact on productivity as average to high. Firms need to measure impact of HIV/AIDS on productivity to guide the type and extent of strategy implementation to protect both Human resource and business.

Table 15 : Whether HIV/AIDS has affected staff morale

Response	Frequency	Percent
Yes	12	42.9
No	13	46.4
Total	25	89.3
Missing	3	10.7
Total	28	100.0

Source: Research Data

42.9% of respondents agree that HIV/AIDS has affected the morale of the staff. However, 46.4 % say otherwise. Five respondents said the impact of HIV /AIDS on staff morale was real and did not have to be due to HIV infected staff but because of death or sickness of a staff's relative or friend. The sickness or death of a staff who may have had sexual, other social or work interaction with others in the organisation affects their attitude to work for days or weeks.

Table 16 : Whether HIV prevalence in the community has affected staff Procurement

Response	Frequency	Percent
Yes	12	42.9
No	14	50.0
Total	26	92.9
Missing	2	7.1
Total	28	100.0

Source: Research Data

Half of the respondents (50.0 %) said their procurement of staff has not been affected by HIV prevalence in the community. This may be true because the industry has since the liberalisation of the Kenyan economy in 1997 (Njau, 2000) seen more staff retrenchments than new hirings. That 53.6% of firms (Table 24) are doing pre - employment HIV screening as a routine means HIV prevalence is changing the staff are sourced from the community. This is borne out by the 42.9 % of respondents who said HIV prevalence has changed how Human resource is sourced. Society is also demanding that firms recognise the large constituency of the HIV infected by hiring some to support their HIV/AIDS workplace programmes. With appropriate care and better access to ARVs, the HIV infected can serve an organisation very long.

4.4. Perceived Risk of HIV Infection

Unless one sees oneself individually at risk of HIV infection, they will not change their behaviour and will put others in danger of HIV infection. The respondents who were themselves senior managers perceived senior and middle management to be at a lower risk of HIV infection while the junior management and the unionised staff were at higher risk. The rating of the risk of HIV infection of senior managers and the unionised staff are shown in the Tables 17 and 18 below.

Table 17: Senior management's risk of HIV infection

Rating	Frequency	Percent
Lowest	9	32.1
Low	9	32.1
Average	3	10.7
High	3	10.7
Highest	1	3.6
Total	25	89.3
Missing	3	10.7
Total	28	100.0

Source: Research Data

64.2 % of respondents thought senior managers had less than average risk of HIV infection. The questionnaires were filled by senior managers and therefore it is not surprising they thought those in their rank ran a lower risk of HIV infection. This is consistent with the perceived tendency to underrate one's own risk of HIV infection. Senior managers

by virtue of their position are endowed with certain privileges that may enable them to access certain services and lifestyles e.g. excessive travel, entertainment etc that could put them at risk of HIV infection. They can leave their homes at 7.00 A.M, kiss their wives goodbye at the door, fly to Mombasa to meet a girlfriend and be home at 6.00 P.M to mark the children's homework. Frequent and extended travel is a known risk factor for HIV infection.

Table 18 : Unionised staff’s risk of HIV infection

Rating	Frequency	Percent
Lowest	2	7.1
Low	3	10.7
Average	3	10.7
High	4	14.3
Highest	5	17.9
Total	17	60.7
Missing	11	39.3
Total	28	100.0

Source: Research Data

42.9 % of respondents thought unionised staff had average to above average chance of getting HIV infected. The perceived low risk of HIV infection by top managers of top management and increasing risk down the ranks is consistent with the behaviour exhibited by most people on HIV/AIDS. There is a tendency to underrate one's own risk of HIV infection. The top managers filled the questionnaires and hence the

observed trend in risk assessment. 39.3% of respondents did not rate the risk of HIV infection of unionised staff. This could be because they did not have a union due to small numbers of staff.

Unionised staff may be earning very little to enable them to live with their families in the city and therefore may have other sexual partners that they visit for a little fees. These could very well be commercial sex workers that are high risk. Others may or may not be living with their families but double up as commercial sex workers or offer sex for favours that allow them to keep working in the wake of frequent layoffs. All these factors put low ranked staff in organisations at greater risk of HIV infection.

4.5. Stigma on HIV/AIDS at the Workplace

Stigma drives most people to fear going for VCT and even more stigma and greater fear is associated with going public with an HIV positive status (UNAIDS, June 2000). Unless stigma is addressed at workplaces, HIV prevention and care programmes cannot be successfully run in organisations. Organisations have to try to create a culture that allows openness in discussing HIV/AIDS and supporting the infected. Responses on the level of HIV/AIDS stigma and openness at the workplace are shown in Table 19 and 20 below.

Table 19: Level of openness in discussing HIV/AIDS

Rating	Frequency	Percent
Lowest	3	10.7
Low	3	10.7
Average	13	46.4
High	6	21.4
Highest	2	7.1
Total	27	96.4
Missing	1	3.6
Total	28	100.0

Source: Research Data

The responses captured in the table above show 46.4% of respondents said there is average openness in discussing HIV/AIDS and 74.9 % rated openness in discussing HIV/AIDS as average and above. Greater openness about HIV/AIDS has been hailed as one of the desired attributes in the fight against the pandemic. Discussing HIV/AIDS is the fourth leg in the HIV prevention interventions targeting the sexual route of transmission. The other three are abstinence, being faithful to one non - HIV infected partner and condom use. Discussing HIV/AIDS demystifies the disease and reduces stigma enabling the infected and affected to build support structures that allow individuals to cope better. For far too long, discussions about HIV/AIDS have focused on death and dying. The story needs to change and focus on the positive aspects. Better understanding of the disease; its holistic management with shear

willpower, positive mindset, diet, good hygiene and ARVs have turned it into a chronic disease for many.

Table 20: The level of stigma associated with HIV/AIDS

Rating	Frequency	Percent
Lowest	1	3.6
Low	3	10.7
Average	3	10.7
High	4	14.3
Total	11	39.3
No response	17	60.7
Total	28	100.0

Source: Research Data

On stigma associated with HIV/AIDS, 14.3 % of the respondents indicated that it is high. There is need for intervention to counter this level of stigma. The level of stigma as reported by 25.0 % of respondents (Table 20) is unacceptably high after nearly twenty years of the disease in Kenya and better understanding of the disease, its mode of transmission, prevention and treatment. Firms need to do more to provide an enabling environment for the HIV infected in the workplace. 60.7% (Table 20) non -response is very high and this could be due to lack of openness and stigma associated with HIV/AIDS (Rau, 2002). Stigma needs to be tackled if HIV control is to be achieved and encouragement given for individuals to access HIV tests to know their status. Knowing

one's status has been hailed as the greatest motivator for behaviour change.

4.6. Strategies to Reduce Impact of HIV/AIDS on Human Resource

To manage HIV/AIDS in the workplace, organisations ought to have policies that are displayed at work areas, an HIV/AIDS champion, a committee and budget. They need to have a comprehensive workplace programme that involves awareness creation for prevention and support of the infected. ARVs improve survival and those with a policy to provide ARVs to staff should not do pre - employment HIV testing partly also because it is against FKE (2001) recommendations. Answers to questions on HIV/AIDS committee, policy, workplace programmes, pre - employment testing and care/support of the infected are shown in Table 21, 22, 23 and 24 below.

Table 21: Whether the organisation has a HIV/AIDS committee

Response	Frequency	Percent
Yes	1	3.6
No	26	92.9
Total	27	96.4
No response	1	3.6
Total	28	100.0

Source: Research Data

Almost all (92.9 %) of the firms investigated don't have a HIV/AIDS committee, a budget or an HIV/AIDS coordinator. A committee and other resources are necessary to facilitate any strategy implementation against HIV/AIDS lest the disease gets forgotten because of other equally pressing business activities. The constituted HIV/AIDS committee should be representative in terms of gender, rank, department and age to ensure issues filter through with ease. The committee could be constituted by a group of volunteer peer educators that acts as a reference to/for others on HIV/AIDS in the organisation. The HIV/AIDS coordinator is best selected from the training or human resource department. He or she should be passionate about HIV/AIDS prevention and a good communicator, to inspire others to action. Among other things, the responsibility on budget preparation and its defence lies with the HIV/AIDS coordinator and committee.

Table 22: Whether the organisation has a written HIV/AIDS policy

Response	Frequency	Percent
Yes	2	7.1
No	26	92.9
Total	28	100.0

Source: Research Data

Only two (7.1%) of the firms have a HIV/AIDS policy. Both were foreign firms and the policy was from the Corporate Centre and not

developed locally for the Kenyan subsidiary. It is important for a firm to have a policy if it intends to implement an HIV/AIDS workplace programme. If borrowed from the Centre, it must be customised to meet local needs. This sets out what staff can expect from the organisation and gives them a document against which they can appraise the organisation. A good HIV/AIDS policy should provide care and support of the infected, protect all against any discrimination based on the HIV status and provide prevention interventions.

Table 23: Whether the organisation has an HIV/AIDS workplace programme

Response	Frequency	Percent
Yes	2	7.1
No	23	82.1
Total	25	89.3
Missing	3	10.7
Total	28	100.0

Source: Research Data

Only 7.1 % of the firms had a HIV/AIDS programme. Majority of the firms in Kenya have not taken the initiative to institute HIV/AIDS programs for their staff as is happening in other industries. It is important to have an HIV/AIDS workplace programme to protect staff from HIV infection and offer care to the infected to keep contributing to the firm's performance and for their own care and upkeep. Training on HIV/AIDS

for staff has not been given a priority with only 10.7% of the firms that responded saying they have undertaken any.

Table 24: Whether they conduct pre-employment HIV testing

Response	Frequency	Percent
Yes	15	53.6
No	13	46.4
Total	28	100.0

Source: Research Data

More than half of the firms (53.6%) conduct pre-employment testing. This is against FKE HIV/AIDS policy (FKE, 2001). Pre - employment testing becomes unnecessary if an organisation has or intends to have an HIV/AIDS workplace programme, that care and support of the infected is part of. Some organisations say they test for planning purposes and do not discriminate or deny anybody a job. The question that is often asked is why anybody would want to get data that they will not use to make choice. It is difficult to believe the HIV status if known, cannot be used to decide whom to hire if two interviewees had the same ability to perform a task but one was HIV positive and the other negative.

Table 25 : Whether they have care and/or support programmes for the HIV infected

Response	Frequency	Percent
Yes	6	21.4
No	22	78.6
Total	28	100.0

Source: Research Data

Only a few firms (21.4%) offer some form of care and/or support for the HIV infected. With the declining prices of antiretrovirals and their demonstrated ability to manage HIV/AIDS enough to improve survival, pressure is mounting for employer groups to provide care and support of the infected. The cost of managing opportunistic infections and frequent hospital admissions is higher than giving ARVs, as BAT Kenya found out (Strategis Health Kenya, 2003). Care and support of the infected would reduce AIDS related absenteeism, improve the staff morale and improve or maintain productivity levels high. Soon, Kenyan companies may get appraised on what they are doing on HIV/AIDS in the workplace as their counterparts in the West have been on sweatshops and use of child labour in the third world.

4.7. Perceived Impact of HIV/AIDS on the Business

As stated earlier in 4.6 under whether HIV/AIDS is a Business issue, HIV/AIDS truly has an impact on business. Results of reactions by respondents to the perceived impact of HIV/AIDS on business, the impact of HIV/AIDS and the IP Act 2001 on prices and Corporate image and nature of the customer the industry is facing today are shown in Table 26, 27, 28, 29, 30 and 31 below.

Table 26: How HIV/AIDS has impacted on the business

Impact	Frequency	Percent
Negatively	7	25.0
Positively	15	53.6
Not at all	5	17.9
Both negatively and positively	1	3.6
Total	28	100.0

Source: Research Data

The impact of HIV/AIDS on the business is largely perceived as positive by the 53.6 % of respondents in pharmaceutical firms. This could very well be firms with products for AIDS related opportunistic infections management e.g. antibiotics, antifungals and antiherpes preparations that still remain profitable even as prices and margins on ARVs go down. Vitamins and mineral supplements too are a growing business and largely used to spur the immune system into reconstitution. Patients not on ARVs have perpetually a depressed immune system and tend to get

frequent opportunistic infections that need to be controlled to avoid early death. For firms with remedies for them, that is good business.

Septin™, an old antibiotic, was re-launched for pneumocystis carinii pneumonia control in 1998 and recorded year-on-year growths of 20%. Septin™ sales in 2001 were Ksh 34 Million (GW Data, 2002).

17.9% of respondents that reported HIV/AIDS had no effect on their business could be in the chronic segments like diabetes, heart disease and ulcers. HIV/AIDS has very little effect on these conditions and is rarely a causal factor for these diseases. 25% of respondents that reported HIV/AIDS has had a negative effect on business may be in the ARV business that has been affected by declining prices and margins; or their customers are dying of AIDS. One distributor said he was losing his customers to a principal manufacturer who not only supplied ARVs but other drugs as well. The customer did not see the need of buying ARVs from the principal and the principal's antibiotics from a distributor at a higher price.

Table 27 : How HIV/AIDS related criticism and the IP Act has impacted on product prices

Impact	Frequency	Percent
Reduced	11	39.3
No effect	15	53.6
Total	26	92.9
Missing	2	7.1
Total	28	100.0

Source: Research Data

53.6 % of the firms have not faced the challenge of prices reduction owing to the IP Act. This could be due to the nature of products they offer the market, i.e. no ARVs. 39.3% have and these must have ARVs in their products portfolio. Pressure by international activists including NGOs like World Vision and Medicins San Frontiers on the pharmaceutical firms with drugs that are critical in management of HIV/AIDS has seen price reductions for patients in the third world. GlaxoSmithKline's Combivir that used to cost Ksh 20, 500 in 1998 is wholesaling at Ksh 1,890 in the public sector today and still declining (Daily Nation, 18. 5. 2003). Countries like Kenya and South Africa that are hard hit by HIV/AIDS have enacted new intellectual property laws to enable them parallel import or local manufacture generics of patent protected medicines to improve access to lifesaving therapies for the HIV infected. The reaction of multinational firms to States flouting patents was one of threats or legal challenge but eventually accommodation that allowed managed-donation programmes for the third world countries,

right to manufacture generics or offers of low priced brand products by these principals. Debates about drug prices in the world fora have made patients more aware of their rights to care and challenged everyone for affordable health care.

Table 28: How HIV/AIDS activism has dented the Corporate image

Rating	Frequency	Percent
Lowest	11	39.3
Low	4	14.3
Average	4	14.3
High	3	10.7
Highest	4	14.3
Total	26	92.9
Missing	2	7.1
Total	28	100.0

Source: Research Data

Nearly half of the firms (53.6%) have faced very low, below average HIV/AIDS activism. Some could be due to their small size or type of products they offer the market. 39.3% of the respondents rated impact of HIV/AIDS activism on corporate image from average to highest. The impact has been greatest on multinational firms with ARVs or critical antifungals. They have been challenged and battered during AIDS conferences, in Newspaper articles and projected as firms putting profits

before human life. It has been said that the pharmaceutical industry today has a poorer public image than the tobacco industry (Chataway, 2000).

Table 29 : Whether the customers they serve are more aware about their needs/demands

Rating	Frequency	Percent
Low	2	7.1
Average	8	28.6
High	13	46.4
Highest	4	14.3
Total	27	96.4
Missing	1	3.6
Total	28	100.0

Source: Research Data

The firms are facing the challenge of serving customers that are much more aware of their needs as reported by 60.7% of respondents. This may be consistent with the new awakening of the Kenyan consumer due to better access to information with the heightened competition among local media houses to offer more content to clients and growth in Internet use. One respondent said often times, a potential customer calls the local subsidiary of a multinational to inquire about a product in their pipeline that he/ she read about in the internet and not yet ready for local introduction in three to five years. Others inquire about products available in other markets and wonder why they cannot get them locally or if they do, at the same prices their colleagues in India get them at.

Asymmetrical or imperfect markets are fast disappearing and any price differentials are easier to pick through the internet or faster foreign travel.

Table 30 : Demand by customers for better services

Rating	Frequency	Percent
Low	3	10.7
Average	8	28.6
High	11	39.3
Highest	5	17.9
Total	27	96.4
Missing	1	3.6
Total	28	100.0

Source: Research Data

57.2% of the respondents said they are serving a customer base that is making great demands for better customer service, in things like on-time deliveries. The adage 'Customer is King' is eventually coming to bear on the Kenyan pharmaceutical industry. Customers are buying less more often and therefore calling for shorter lead-times and on-time deliveries lest patients or customers suffer. The industry has responded by investing in tools that do demand - forecasting to ensure customers' needs are met as they evolve and data on usage is shared between customer, the local subsidiary and the manufacturing site in Europe, or Asia (GW Data, 2002). Motor-bikes have been introduced to quicken deliveries of small, critical supplies because they can beat traffic jams in the cities (GW Data, 2002).

Table 31 : Demands customers are making for lower prices

Rating	Frequency	Percent
Lowest	1	3.6
Low	3	10.7
Average	5	17.9
High	11	39.3
Highest	7	25.0
Total	27	96.4
Missing	1	3.6
Total	28	100.0

Source: Research Data

64.3% of respondents said there is a lot of pressure by customers for price reductions. ARVs were the first to face the challenge and customers are now calling for bargains on all products before they buy. One of the distributors said they offer up to 7.5% off on stated wholesale prices for some products. Big customers like hospitals are getting offers that commit them to lower prices for a contracted period or product bundling that allows very low prices on some products where margins are better and maintenance of higher prices on those with low margins. Overall, it is usually a win-win for both customers and suppliers as demand is predictable reducing expensive stockholding and so are prices for specified periods over the contract period (GW Data, 2002). It is important that the firms strategise to face this challenge to remain profitable.

The effect of HIV/AIDS activism on product registration process at the Pharmacy and Poison Board is mixed. 10.7% of the respondents said the process has been slowed and 39.3% said it had become quicker. 50 % of the respondents said there has been no effect. Those with ARVs or other drugs for AIDS management, their products get faster attention at the Pharmacy and Poisons Board to enable the HIV infected get new or cheaper medicines sooner. For those with lifestyle products e.g. for Erectile Dysfunction, the registration process has been slower as more attention focuses on the 2.5 million Kenyans (NASCOP, 2002) that are living with the virus. 50% of respondents said the time it took to register their products at the Board did not change with HIV/AIDS activism. This could be because they do not submit products for registration often or never at all, perhaps because they are just distributors of registered products.

4.8. Strategies to address HIV/AIDS challenges on the Business

Different firms have adopted different strategies to meet the challenge of HIV/AIDS. 50.0% of respondents said they had a strategy to address HIV/AIDS as a business threat and 85.7% a strategy to harness opportunities it has brought. 42.8% of respondents said they have come under pressure to reduce drug prices and 53.5% said their firms had recorded year on year growth in sales turnover.

4.8.1: Strategies of minimizing impact of price reductions on profitability

The pharmaceutical firms have been adopting various strategies to minimise impact of the price reductions on profitability. 17.9 % of respondents reported entry into new markets and stoppage of brand building especially in the ARVs category and 39.3 % of respondents reported personnel reduction.

Table 32: Sought better transfer prices and reduced prices

Response	Frequency	Percent
Yes	12	42.9
No response	16	57.1
Total	28	100.0

Source: Research Data

42.9 % of the respondents said their firms had sought better transfer prices to enable them to reduce local prices without suffering heavy losses locally. These respondents must be working for organisations that either are agents/importers or subsidiaries of multinational firms that have an offshore profit centre. To offer better transfer prices, the principal gives up a little of this profit at the centre to the local entity to be more price competitive.

Aggressive price reductions by multinational firms on ARVs have discouraged local manufacturers from investing heavily in creating local capacity. High prices of brand products allow generics to thrive. If a branded product manufacturer makes product R at Ksh. 2,000.00 and sells it at Ksh.7, 000.00, a generic manufacturer who makes the same product at Ksh.1,000.00 may sell it at Ksh. 5,000.00 making a good profit. If the branded product manufacturer offers the same product to the market at Ksh. 2,500.00, then the market is no longer as attractive for the generic manufacturer, as it has happened with ARVs.

Many of the respondents (57.1%) who did not give a response on whether they sought better transfer prices to be more competitive locally must be working for local firms and those with little room for price adjustments without affecting profitability much.

Table 33: Export to regional markets and stopped brand building

Response	Frequency	Percent
Yes	5	17.9
No	4	14.3
Total	9	32.1
Missing	19	67.9
Total	28	100.0

Source: Research Data

17.9 % of respondents said they have started exporting medicines to the regional markets and stopped brand building to reduce costs. The intense competition and pressure to reduce prices in Kenya has seen many firms try to develop markets in Uganda, Tanzania and Rwanda. Many firms are

launching products that are successful in Kenya in these markets. Uganda and Tanzania have a more stringent product registration regime that discourages parallel importation of patented products (GW Data, 2002). Firms with ARVs are cutting back on brand building in the category and re-focusing attention to other categories like asthma treatments and antibiotics that are not under pressure to implement lower prices (GW Data, 2002).

4.8.2: Strategies the firm has undertaken to build customer loyalty

The Kenyan pharmaceutical firms have undertaken various measures to build customer loyalty as shown in the following four tables. 82.1% have focused on on-time deliveries, 57.1% on long-term contracts and 67.9% on bonuses on volume purchases.

Table 34: On-time deliveries

Response	Frequency	Percent
Yes	23	82.1
No	2	7.1
Total	25	89.3
Missing	3	10.7
Total	28	100.0

Source: Research Data

82.1% of the respondents said they have tried on-time deliveries to improve customer loyalty. If the quality and claim on efficacy is high, on-time deliveries become another realm firms compete in. One respondent said they always measure time it takes for an order to be delivered after a client calls or faxes an order to the customer service department. Deliveries within Nairobi are done within three hours if they are small and eight hours if they are big and take long to assemble. All upcountry orders are expected at the customers' warehouse in twenty-four hours. Its even more critical to get ARV supplies to customers on time because failure to take only two doses by a patient reduces the efficacy of treatment by 50% thereby allowing the virus to develop resistance.

Table 35: Extended credit period

Response	Frequency	Percent
Yes	11	39.3
No	11	39.3
Total	22	78.6
Missing	6	21.4
Total	28	100.0

Source: Research Data

39.3% of respondents said they offer extended credit to customers and an equal number said they do not. Five respondents said they do that with secure debtors like the government (Army, Kenyatta National Hospital)

but while this is good to maintain customers, it hits their profits greatly. Firms borrow to finance stock purchases; any Forex disturbances with a fall in the Kenyan shilling means an higher debt burden for local firms acquiring stocks using hard currencies to service these customers. Those who offer extended credit terms hedge their bets very closely to ensure they don't lose.

Table 36: Long- term contracts

Response	Frequency	Percent
Yes	16	57.1
No	5	17.9
Total	21	75.0
Missing	7	25.0
Total	28	100.0

Source: Research Data

57.1% of respondents said they use long term contracts to maintain customer loyalty. One respondent said this is the only way one can keep certain hospitals in line. They are bound by a contract that gives them products at agreed low prices and therefore when another supplier comes along and betters the deal, they call up for further discussions. While it is not always possible to match all price offerings, the call gives one important information that allows other strategies to be considered even if not for that customer, but others who are likely to follow suit. Another respondent said long-term contracts can be dangerous because in the event of a fall in the value of the Kenyan shilling, agreed prices cannot be altered for the period of contract.

Table 37: Bonus on Volume purchases

Response	Frequency	Percent
Yes	19	67.9
No	5	17.9
Total	24	85.7
Missing	4	14.3
Total	28	100.0

Source: Research Data

67.9% of respondents said they do give bonuses on volume purchases. Seven said a bonus often triggers immediate sales as buyers see the immediate gain in their mind's eyes even if it takes longer to sell off the stocks to get the benefit. When they have bought the product, they have to move it and a big purchase ties up resources they would otherwise use to buy competitor products. One respondent said however, that one has to be careful not to transfer the whole warehouse to one client, creating an artificial shortage, denying other smaller but more regular customers products pushing them into the hands of the competitors. The artificial shortage created could trigger an order for supplies that only become dead stock in the warehouse for months upon landing as the distributors who bought products on bonus re-supply the market often at discounted prices.

4.8.3: How the firms ensure their products get fast track registration at Pharmacy and Poisons Board

Kenyan pharmaceutical firms ensure their products get fast track registration at Pharmacy and Poisons Board through a number of ways including the two shown in Table 38 and 39.

Table 38: Has a Regulatory Affairs Department

Response	Frequency	Percent
Yes	12	42.9
No	8	28.6
Total	20	71.4
Missing	8	28.6
Total	28	100.0

Source: Research Data

42.9% of respondents said they have in place a regulatory affairs department to facilitate product registration. Product registration involves the submission of samples and dossiers (documents) that give data on various attributes of the product in question. This involves data on efficacy, frequency of administration, side effects, storage conditions and doctor-information leaflets. Questions are often raised by the Pharmacy and Poisons Board that need further search for information or request for more information from the Centre or manufacturing site. Registration work is very involving and expensive. Therefore, to speed up registration and improve speed to market of new products, some firms

have set up registration affairs departments within their medical departments to handle registration issues. Where the unit exists, it is independent of the Sales and Marketing department to ensure there's no bias in claims that could be inaccurate but appropriate to drive sales. The Registration Affairs departments often act as oversight bodies over marketing claims on medicines and what they can do.

Table 39: Has Pharmacist liaising with the Board

Response	Frequency	Percent
Yes	16	57.1
No	6	21.4
Total	22	78.6
Missing	6	21.4
Total	28	100.0

Source: Research Data

57.1% of respondents said they have a pharmacist who liaises with the Pharmacy and Poisons Board on registration issues. The teams that appraise medical products and dossiers at the Pharmacy and Poisons Board are composed of pharmacists. The best cultural go-between for both parties then is a pharmacist. He/she by virtue of their training are aware of the legal limits and what is needed to successfully file a product for registration. He/she can therefore customise international dossiers for local filing fast.

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary

In chapter 2, a model depicting the relationship between the environment, strategy and internal capability (Ansoff, 1990) was discussed.

Majority (92.9%) of pharmaceutical firms acknowledged that HIV/AIDS is a business issue and had led to change in the environment but few (7.1%) had a strategy to manage Human resource issues in the era of HIV/AIDS irrespective of type of company, ownership, size or whether they had antiretrovirals in their product portfolio. Many (64.3%) perceived HIV/AIDS both as a business opportunity and a threat due to the greater need for drugs to manage the disease and access related pressure (14.3%) to reduce healthcare costs that is making the pharmaceutical business unprofitable, respectively. HIV/AIDS is also a general threat to the workforce and productivity and unless organisations address it in earnest, it will cost them dearly (Rau, 2002).

The market size of the Kenyan pharmaceutical business was Kshs. 10 Billion in 1999 (Image Dynamics). The study brought out the fact that locally owned firms (64.3%) dominate the sector in sheer numbers although it was not possible to gauge in monetary terms the size of the Kenyan Pharmaceutical market they control as most firms did not give their sales turnover. Most firms (64.3%) had less than 50 employees.

This may be consistent with the fact that the industry is defined by high margins, low volume and is a highly specialized business. Retrenchment has been frequent with the drastic reduction in size of staff. Most respondents (78.6%) had been with their current organisation for less than ten years.

Medicines used for the management of infectious diseases (antivirals, antibiotics and antimalarials) constituted the greatest part of most firms' (92.9%) business. This may be consistent with disease patterns in the tropics and in a developing country, that Kenya is one.

46.4% of firms in the pharmaceutical industry surveyed felt HIV/AIDS complicated HR management and 42.9% that it impacted employee morale. 46.4% of the firms did not think HIV/AIDS had an impact on morale. The perceived low impact of HIV/AIDS on Human Resource management could be due to the fact most firms do pre-employment screening and have a high employee turnover.

Perception of risk of HIV infection appeared higher down the organisational structure with 64.2% scoring low to lowest risk for senior management and 42.9% scoring average to highest for unionised staff. All the questionnaires were filled by senior managers and the trend in perceived risk noted is consistent with the drive to underrate one's own risk. 14.3% of the respondents indicated there is below average level of stigma associated with HIV infection in the organisation. This could be because they have not had a confirmed case of a person living with AIDS to enable them to judge how others would relate to him or her.

HIV/AIDS control strategies are almost non-existent in the surveyed pharmaceutical companies with 92.9% not having an HIV/AIDS committee to coordinate responses or a policy, 92.9% not having a coordinator to champion HIV/AIDS issues or a set budget. Only 7.1% reported having any form of HIV/AIDS workplace programme. 78.6% reported not having care and support for the HIV infected. Many firms (53.6%) do pre-employment screening and the rest (46.4%) only haven't because they have low staff turnover and they have not had chance to replace personnel in 5-10 years.

53.6% of respondents said the impact of HIV/AIDS on their firm's businesses has been positive. It has driven up their annual sales of antibiotics and nutritional supplements. 25.0% said the impact was negative particularly due to the decline in antiretroviral prices with reduction in profits and death of many regular customers. The impact of IP Act, 2001 is largely on antiretroviral prices and but for firms with ARVs, many others have not been affected (53.6%).

The customer the Kenyan pharmaceutical firm is serving today is more aware (46.4% rated high) in the wake of HIV/AIDS, demanding both better service (39.3% rated high) and lower prices (39.3% rated high). Generally these customers are more aware of their medical condition and management due to the internet, HIV/AIDS related medical information explosion and opening up of the Kenyan healthcare market (GW Data, 2002).

14.3% of the respondents said they perceive HIV/AIDS purely as a business opportunity and 64.3% saw it both as an opportunity and threat

and have a strategy in place to exploit that business opportunity it presents. 42.9% of respondents said their firms had sought better ARV transfer prices to fight price wars with the rising flood of low priced generics. Many firms have tried to improve their customer service to build customer loyalty with 82.1% focusing on-time deliveries, 57.1% focusing on long - term contracts and 67.9% offering bonuses on volume purchases.

To ensure products are registered fast to improve speed to market, 42.9% of the firms have created a regulatory affairs department and 57.1% have a pharmacist to liase with the Pharmacy and Poisons Board. The Pharmacy and Poisons Board is predominantly run by pharmacists (PPB, 2002).

5.2. Conclusion from the Study

The findings of this study indicated that while the Kenyan pharmaceutical companies are putting strategies in place to harness the potential for HIV/AIDS inspired sales growth, they are doing very little to take care of their most important asset, Human resource; as indicated by 82.1% of the respondents who said they did not have an HIV/AIDS Workplace programme. They are still carrying out pre-employment testing (53.6%) that is against the FKE code of conduct, do not have policies (92.9%) and programmes to control HIV/AIDS in the workplace or a care and support programme (78.6%) for the infected.

Firms too in the industry appear to underrate the impact of HIV/AIDS on personnel morale (46.4%) and productivity as rated low to lowest by 57.2 % of respondents. As firms in the mining industry in South Africa e.g. Gold Fields (Wilkinson, 2001) have acknowledged, the impact of HIV/AIDS on productivity and morale cannot be underestimated. The pharmaceutical industry in Kenya needs to address HIV/AIDS in the Workplace more proactively lest they pay a high price with poor business performance.

The perception by senior managers that risk of HIV infection is higher for those down the ranks needs to be addressed if an HIV/AIDS workplace programme is to be undertaken successfully in any firm. Unless that is done, any projection of HIV/AIDS as an union issue would erode ownership and success of any programmes undertaken. Unless senior managers too begin to see themselves at risk, many may get infected as noted in South African companies (Joseph, 2001)

That the pharmaceutical industry has both the knowledge and the drugs and is fully aware of their ability to improve quality of life and survival, puts a bigger burden on it to offer them to own employees that are HIV infected. Because the industry is built around providing medicines and diagnostics for healthcare provision, it must demonstrate the products it has can be and will be useful to its own staff. Then it will earn the right to urge others to provide care and support of the infected with its medicines and diagnostics.

Competitive strategy in the antiretroviral business appears mostly built on price. M. Porter (1998) argued that a competitive strategy build

around offering a lower price is not sustainable as other industry players can easily match any price offered. Declining prices can only lead to declining margins and all firms will end up poorer. Other strategies other than price reductions need to be found to enable firms to compete and build customer loyalty in the wake of HIV/AIDS' pressure to improve access to ARVs, if the pharmaceutical business has to remain profitable. Just-in-time product deliveries to customers, long-term contracts and bonuses on volume purchases may have worked for some firms but creating greater and closer links with the customers that allow subordination of lower prices should be pursued if the firms are to remain profitable.

5.3. Limitations of the Study

Some of the limitations of this study are due to the method of data collection. The weaknesses of survey research may also have been potentially limiting in the study. The use of a structured questionnaire may have defined the questions and greatly influenced the answers the respondents gave. Care was however exercised during the designing of the questionnaire to minimise this limitation.

That the questionnaire was administered by **drop-pick** later method and **e-mail** may have affected the interpretation of questions by respondents and therefore the quality of answers they gave. Despite follow-up by phone or visit, willingness to fill the questionnaire was low and only 28

(35%) were returned. It is difficult to know what impact an higher return would have had on the results.

The high level of stigma and denial associated with HIV/AIDS may have influenced the answers respondents gave and that no personal interviews were done, there was no room for the researcher to gauge accuracy or credibility of answers from the respondents' body language.

Finally, I was operating within limited time and resources and therefore that only allowed me to conduct a cross-sectional study. A longitudinal study over a longer period would have required more resources but perhaps brought out different findings.

5.4. Recommendations for Further Research

Non-discriminative HR maintenance means providing ARVs to the HIV infected as well. Its successful implementation across the industry would lead to adoption by others from outside the industry with mounting pressure for further ARVs and opportunistic infections medicines price reductions. They would otherwise accuse players in the pharmaceutical industry of denying them what they are offering their own staff to maintain good health and productivity. That would lead to further margins reduction threatening the pharmaceutical business in Kenya; and almost death by design!

Further Study could be undertaken to: -

- a) Establish if improved access to ARVs and opportunistic infections (OIs) medicines may mean death of the industry.

- b) Establish why firms are doing so little on HIV/AIDS control in the workplace as the current findings show.
- c) Repeat the same study a few years later to establish evolution of any strategies to address the challenges of HIV/AIDS on the industry.

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APPENDICES

Appendix 1: Pharmaceutical Manufacturers/ Distributers in Nairobi

Assia pharmaceuticals Ltd
Aventis Pharmaceuticals
Aventis Pasteur
Bayer E.A. Ltd
Beta Healthcare
Boehringer Ingelheim
Phillips Pharmaceuticals
Bristol Meyers Squibb
Bulk Medicals Ltd
C. Mehta & Co. Ltd
Cadila Pharmaceuticals E. A. Ltd
Cosmos Ltd
Dawa Pharmaceuticals Ltd
Eli Lilly S A
Elys Chemicals industries Ltd
Europa Healthcare Ltd
Framin Kenya Ltd
GlaxoSmithKline
Globe Pharmacy
Goodman Agencies Ltd
Harleys Ltd
Howse & McGeorge Laborex Ltd
Jassen Pharmaceuticals
Kam Pharmacy Ltd
Laboratory & Allied Ltd
Lippicot Company Ltd
Lords Healthcare Ltd
Mac's Pharmaceuticals Ltd
MacNaughton Ltd
Mission for Essential Drugs & Supplies
Nairobi Enterprises Ltd
Njimia Pharmacy
Norvatis Pharma
Omaera Phamaceuticals Ltd
Pfizer Laboratories Ltd
Pharmaceutical Manufacturing Co. Ltd
Pharmacia Upjohn
Rangechem Pharmaceuticals
Ray Pharmaceuticals Ltd
Regal Pharmaceuticals Ltd
Reckitt Benckiser E.A Ltd
Roche Products Ltd
Sai Pharmaceuticals Ltd
Schering Africa GmbH
Schering-Plough Corporation, USA
Shriji Chemist Ltd
Sphinx Pharmaceuticals
SurgiLink Ltd
Surgipham Ltd
TZA Pharmaceutical Group
Tealands Pharmaceuticals
Transchem Pharmaceuticals
Transwide Pharmaceuticals
Twiga Pharmaceuticals
Universal Pharmacy
Veteran Pharmaceuticals Ltd
Wyeth-Ayerst Ltd
Astra Zeneca
Abbott Laboratories
Sanoti-Synthelab
3M Kenya
Merck . Sharp & Dolme
Red Hill Pharmacy
Wockhardt Europe Ltd
Novelty Manufacturing Ltd
Karuri Stores
Kotex (K) Ltd/ Scientis
Countrywide Pharmaceuticals
Al-Eman Co. Ltd
Armicon Pharmaceuticals Ltd
Fresenius Kabi GmbH
Madawa Pharmaceuticals Ltd
Medox Pharmaceuticals Ltd
Pan Pharmaceuticals Ltd
Sunpar Pharmaceuticals Ltd
Syner-Med Pharmaceuticals Ltd
Twokay Chemicals Ltd
Kulal International Ltd
Channis Chemists Ltd

Appendix 2: Letter to Respondents



UNIVERSITY OF NAIROBI

FACULTY OF COMMERCE

MBA PROGRAM - LOWER KABETE CAMPUS

Telephone 7321601 ext 208
Telegrams "Varsity", Nairobi
Telex 22095 Varsity

P.O. Box 30197
Nairobi Kenya

DATE.....

TO WHOM IT MAY CONCERN

The bearer of this letter MURAAH WILLIAM

Registration No: D61/P/7911/97

is a Master of Business Administration (MBA) student of the University of Nairobi.

He/she is required to submit as part of his/her coursework assessment a research project report on some management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate if you assist him/her by allowing him/her to collect data in your organization for the research.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.


JACKSON MAALU
 CO-ORDINATOR, MBA PROGRAM



Appendix 3: Research Questionnaire

Part 2: Personal Details

Name: _____

Address: _____

Phone: _____
E-mail: _____

Part 3: Employment Details

Name of organization: _____

Job title: _____

Number of employees: _____
Year of establishment: _____

Address: _____

City: _____

State: _____

Country: _____

Other: _____

Name of organization: _____

Job title: _____

Name of Agency: _____

Address: _____

SECTION A: GENERAL INFORMATION

Part 1: Personal Data

1. Position in the organization -----
2. Department-----
3. Years of services with the organization (Tick) 0 - 5 () 6 -10 ()
11-15 () over 15 ()

Part 2: Organisational Details

4. Name of organisation -----
5. Year of establishment-----
6. Number of employees (Tick) 0 - 50 () 51 - 100 () 101 - 150 ()
over 150 ()
7. Management / ownership of organisation
Wholly Foreign ()
Wholly local ()
Local - Foreign joint venture ()
Others (specify) _____
8. Type of organization (you can tick more than 1)
(a) Local Manufacturer ()
(b) Importer/ Agents ()
(c) Distributor ()

Others: _____

9. Please give approximate figures of your sales turnover for the last four years (Kshs)

a. 2000 _____ 2001 _____

b. 2002 _____ 1999 _____

10. Which of the following therapeutic categories represent the largest part of your business ?

- a) Antibiotics ()
- b) Antivirals ()
- c) Anti-malarials ()
- d) Anti- ulcers ()
- e) Pain killers ()
- f) Dermatologicals ()
- g) Other, specify

11. What percentage of your business does the category you scored above represent? -----%

SECTION B: HIV /AIDS RELATED IMPACT

12. Do you consider HIV/AIDS a business issue? Yes () No ()

13. If the answer to Q12 above is No, why?

14. If the answer to Q12 above is Yes, is it

(a)

- an external business threat? ()
- an external business opportunity? ()
- or both? ()

(b)

- an internal management threat? ()
- an internal management opportunity? ()
- or Both? ()

Give reasons for your answers above

15. Has an attempt been made to measure impact of HIV/AIDS on your organisation?

Yes ()

No ()

Part 1: Internal Management

16. Has HIV/AIDS complicated your human resources management

Yes ()

No ()

17. Has your organisation ever had HIV infected staff?

Yes ()

No ()

18. If the answer to Q17 above is Yes, are they still serving your organisation?

Yes ()

No ()

19. If the answer to Q18 is No, give details

20. Rate the impact of HIV/AIDS on your organisation in respect to the following (Take 1 as the lowest and 5 as the highest impact)

	1	2	3	4	5
Medical Costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insurance Costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Absenteeism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Productivity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. Has HIV/AIDS affected staff morale in your organization?

Yes ()

No ()

22. If answer to Q21 above is yes, give details

23. Has HIV prevalence in the community affected your staff procurement?

Yes ()

No ()

If Yes, to what extent?

Small					Large
	1	2	3	4	5

24. How would you rate the risk of HIV infection of the following in your organisation? Take 1 as the lowest and 5 the highest

	1	2	3	4	5
Senior management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Middle management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Junior management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unionised staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25. How do you rate the level of openness in discussing HIV/AIDS in your organisation?

Low					High
	1	2	3	4	5

26. In your organisation, is there some stigma associated with HIV infection?

Yes () No ()

27. If the answer to Q26 above is Yes, what level?

High				Low
5	4	3	2	1

28. Does your organisation have

	Yes	No
(a) a HIV/AIDS committee ?	<input type="checkbox"/>	<input type="checkbox"/>
(b) a HIV/AIDS coordinator ?	<input type="checkbox"/>	<input type="checkbox"/>
(c) an HIV/AIDS control budget ?	<input type="checkbox"/>	<input type="checkbox"/>

Part 2: Business

29. How has HIV/AIDS impacted your business?

Negatively () Positively () Not at all ()

30. If the impact on business has been negative, give details

31. If the impact on business has been positive, give details

32. What products does your organisation sell in the area of HIV/AIDS?

33. Have you recorded any Year on Year volume growth of the products listed above in answer to Q 32?

Yes () No ()

34. If the answer to Q33 is No, give details

35. How has HIV/AIDS related criticism and the IP Act, 2002 impacted on your product prices?

Reduced () No effect () Increased ()

41. If the HIV/AIDS policy exists, is it hang in all your work - areas?

Yes () No ()

42. Give at least Four Core areas your HIV/AIDS policy attempts to address?

43. Has your organisation had an HIV/AIDS workplace programme?

Yes () No ()

44. If the answer to Q43 above is Yes, what does it involve?

45. Have you conducted a company-wide HIV/AIDS training?

Yes () No ()

46.a) If the answer to Q45 is Yes, were the groups of attendees mixed in terms of age, gender, rank and department?

Yes () No ()

b) If the answer to Q46.a) above is No, how were the groups categorized?
Give more details

47. Do you conduct pre - employment HIV testing of your staff?

Yes ()

No ()

Give details for either answer

48.a) Do you have care and/ or support programmes for the HIV infected in your organisation?

Yes ()

No ()

b) If Yes, state how it is done

Part 2: Business

49. How has your organisation been able to reduce the negative Corporate image the HIV/AIDS activism has created on the industry?

50. Has your organisation come under pressure to reduce local prices of certain products?

Yes ()

No ()

51. If the answer to Q50 above is Yes, have you lowered your prices?

Yes () No ()

52. If the answer to Q51 is Yes, what strategies have you used to minimize impact on profitability?

	Yes	No
Reduced staff	()	()
Sought better transfer prices	()	()
Stopped Brand building	()	()
Exports to regional markets	()	()

53. The IP Act, 2002 was meant to allow the manufacture and parallel importation of cheaper medicines the government deems necessary to control HIV/AIDS in Kenya. How has your organisation responded to the IP Act, 2001?

54. What strategies has your organisation undertaken to build customer loyalty among those who buy your products?

	Yes	No
On-time deliveries	()	()
Extended credit period	()	()
Long term contracts	()	()
Bonus on Volume purchases	()	()
Team Building activities	()	()

Support customer-sanctioned
Projects (Lab upgrades, Library etc.) () ()

55. How has your firm handled the challenges posed by customers inclined to exploit the price inequalities that exist between markets in sub-Saharan Africa (for ARVs) and the richer Western European countries?

56. The HIV/AIDS epidemic and attempts by the government to liberalize the market to improve access to ARVs has led to submission of many products samples and Dossiers to the Pharmacy & Poisons Board for registration. How has your organisation ensured its products get fast track registration?

	Yes	No
Has a Regulatory Affairs Department	()	()
Has Pharmacist liaising with the Board	()	()
Arranged visits for Board members to Production facilities	()	()
Supported Board activities	()	()

57. After filing Dossiers with the Pharmacy and Poisons Board, how long does it take to get your products registered? (months)

1 - 4 () 5 - 8 () 9 - 12 () Over 12 ()