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EFFECT OF MARKETING MIX STRATEGIES ON SALES PERFORMANCE AMONG PHARMACEUTICAL MANUFACTURING COMPANIES IN NAIROBI COUNTY, KENYA

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A DISSERTATION SUBMITTED TO THE SCHOOL OF BUSINESS AND LEADERSHIP STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION (MARKETING OPTION) OF ST. PAUL'S UNIVERSITY

JULY, 2024

DEC ION

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I declare that this dissertation is my original work and has not been presented for a degree in any other university

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ABSTRACT

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The Kenyan pharmaceutical manufacturing industry has experienced a noticeable decline in sales growth in recent years. To address this challenge, individual pharmaceutical manufacturers in Kenya need to establish and adopt effective marketing mix strategies tailored to their unique market environments to optimize on sales results. The study's general objective was to assess the effect of marketing mix strategies on sales performance among pharmaceutical manufacturers in Nairobi County, Kenya. The specific objectives were to analyse the effect of pricing strategy, product development strategy, promotion strategy, and place strategy on sales performance among pharmaceutical manufacturing companies in Nairobi County. The study was guided by the Marketing Mix theory, the response hierarchy theory, the Depot theory of distribution, and the Diffusion of Innovation theory. A descriptive research design was adopted. The target population consisted of 640 respondents representing 20 pharmaceutical manufacturers in Nairobi County. Simple random and purposive sampling techniques were used to select a sample size of 94 respondents. Semi structured questionnaires were employed for data collection and distributed physically with the assistance of research assistants and via mail for respondents who had hectic schedules. To improve the effectiveness of questionnaire completion, follow-ups were conducted. Data were analysed using the Statistical Package for Social Sciences (SPSS) for quantitative metrics, while qualitative data analysis was facilitated by use of the NVivo tool. Descriptive statistics were used to describe data in the form of means and standard deviation and inferential statistics were used to draw inferences. The study revealed that pricing, product development, promotion, and place strategies significantly influence sales performance. Cost-based pricing emerged as the most effective, with the highest mean score ($M = 4.20$, $SD = 1.09$). A positive and significant relationship between pricing strategy and sales performance was found ($r = 0.339$, $p < 0.01$). The introduction of high-quality products had the most substantial effect, reflected by a mean score of 4.05 ($M = 4.05$, $SD = 1.09$). A significant positive correlation between product development strategy and sales performance was observed ($r = 0.386$, $p < 0.01$). Additionally, integrated marketing communications were highly influential, indicated by a mean score of 4.25 ($M = 4.25$, $SD = 0.92$), with a strong and significant correlation between promotion strategy and sales performance ($r = 0.455$, $p < 0.01$). Place strategy emerged as having the most significant impact on sales performance among pharmaceutical manufacturers in Nairobi County, Kenya, with coefficient of 0.493. Finally, efficient distribution and logistics showed the strongest relationship with sales performance, with the highest correlation coefficient ($r = 0.549$, $p < 0.01$). The study underscores the critical role of optimizing place strategy by leveraging on efficient distribution systems to drive sales, further, promotion, pricing and product development strategies all contribute uniquely to sales outcomes, and a balanced approach incorporating all these marketing mix strategies is critical for better sales success. The study recommends that, pharmaceutical manufacturing industry in Nairobi County need to leverage on refining their distribution networks to enhance efficiency and optimize on sales returns. Policy makers should introduce guidelines that enhance competitiveness and reduce costs for pharmaceutical manufacturers in Nairobi County, for example tax reductions on raw materials. Further studies should look into effects of digital marketing strategies on pharmaceutical sales performance, the effectiveness of various pricing strategies, including competitive and penetration pricing in different market segments and regions, to provide valuable insights for optimizing pricing approaches.

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ABBREVIATIONS AND ACRONYMS

APIs : Active Pharmaceutical Ingredients

COMESA : Common Market for Eastern &Southern Africa

GMP : Good Manufacturing Practices

KAM : Kenya Association of Manufacturers

KAPI : Kenya Association of Pharmaceutical Industry

KNBS : Kenya National Bureau of Statistics

KEMSA : Kenya Medical Supplies Agency

KPIs : Key Performance Indicators

MOH : Ministry of Health

NACOSTI : National Commission for Science, Technology and Innovation

OTC : Over the Counter

PPB : Pharmacy & Poisons Board

R&D : Research & Development

SMEs : Small Medium Enterprises

SPSS : Statistical Package for Social Sciences

UNIDO : United Nations Industrial Development Organizations

WHO : World Health Organization

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OPERATIONAL DEFINITION OF TERMS

Marketing mix strategies: These are detailed plans of action used by the pharmaceutical manufacturing sector to boost sales by utilizing the 4Ps: price, product, promotion, and place (Purcarea, 2019).

Pharmaceutical industry: It refers to the Nairobi County pharmaceutical manufacturing companies. These are firms, public or private, involved in the manufacture of medicines for sale (Tawfik et al. 2021).

Place Strategy: Modalities adopted by manufacturers of pharmaceuticals to make their products reach the end consumers. In this context, It encompasses; warehouse management systems, distribution systems, delivery management systems, and the use of E-commerce distribution platforms (Czinkota et al.2021).

Pricing Strategy: Approaches adopted by manufacturers of pharmaceuticals to determine the price at which consumers are willing to pay to use or experience their goods (Moon, 2020).

Product Development Strategy: Methods used by a pharmaceutical manufacturing company to produce products that meet the needs of the target market. Key characteristics of this strategy include product research and development (R&D), quality specifications, product branding, and differentiation (WHO, 2020).

Promotion strategy: Campaigns used by pharmaceutical manufacturing companies, include the use advertising, personal selling, sponsorships, and sales promotion as part of their efforts to raise consumer awareness of their products (Mbugua, 2014).

Sales performance: A summary of turnover provided by pharmaceutical

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manufacturing companies, encompassing metrics such as customer conversion rates, improvements in the performance of their product portfolio, the efficiency of closing the sales cycle, and levels of customer satisfaction. (Chen et al. 2019).

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

This section discusses the background of the study, the problem statement, research questions and objectives, justification for the study, general scope, as well as the assumptions, limitations, and delimitations involved.

1.2 Background of the study

An organization's capacity for performance is determined by how well it handles daily tasks as well as how well it implements a comprehensive marketing plan in comparison to its rivals (Kotler & Armstrong 2006). Additionally, Kotler and Armstrong (2012) define marketing mix as a collection of tactical marketing instruments, comprising of 4 elements; product, price, promotion, and place. The 4ps were moved from conventional proxies to the 7ps, which comprised price, product, promotion, place, people, processes and physical evidence, according to Gronroos (2010). All of the components of the marketing mix are combinations of tactics that a company's marketing managers can oversee. According to Morgan, Clark, and Gooner (2017), strategies are systematic routes that businesses take to reach a particular performance level. Goals are objectives, and objectives pertain to how an organization operates. Through strategic marketing, a company can establish a well-organized plan for accomplishing its objectives and determine the most efficient way to do so within a given time frame (Okhiria, 2020).

Pharmaceutical manufacturing companies face several specific challenges that affect their operational efficiency and sales performance. A significant issue is inefficiency in distribution networks, which can result in delays and increased costs, negatively affecting product availability and customer satisfaction (African Development Bank Group, 2020). Additionally, rising production costs driven by fluctuating raw material prices and stringent regulatory requirements put pressure on profit margins (Hinson et al., 2020). Regulatory compliance is another critical concern, as navigating complex and frequently changing regulations can delay product launches and increase operational costs (Kotler, 2015). Intense competition further

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exacerbates these challenges, necessitating continuous innovation and differentiation to maintain market share (Gonzalez Pena et al., 2021).

The recent global pharmaceutical industry slowdown exemplifies the broader challenges facing the sector, with a sharp decline in sales growth to just 4% in 2020, significantly lower than the average over the previous decade (Laermann, Nguyen, & Blackfish, 2021). This slowdown highlights the difficulties that pharmaceutical companies encounter, including poor organizational strategy decisions and increased market pressures, which have made it harder to sustain long-term profitability and revenue growth (Gonzalez Pena et al., 2021).

These global challenges are mirrored in the local market's competitive landscape. This intense competition is fuelled by well-established multinational corporations that bring advanced technologies, extensive product portfolios, and significant financial resources, creating a challenging environment for local firms (Hinson et al., 2020). Additionally, price competition is a major factor, as firms strive to offer cost-effective solutions, while maintaining high product quality (Hinson et al., 2020). Companies must also navigate regulatory challenges and market access barriers, which can affect their ability to compete effectively. To thrive in this competitive landscape, pharmaceutical companies need to focus on strategic marketing, operational efficiency, and continuous innovation to differentiate and capture market share (Gonzalez Pena et al., 2021). The rise of generic drug manufacturers and the increasing demand for innovative and specialized medications further intensify this competitive pressure (Nzewi, Moneme, & Mgbemena-Nsofor, 2017). According to Wangari and Letting (2021), the pharmaceutical industry in Kenya is highly dynamic and quickly changing landscape where a large number of domestic and foreign companies have established a fiercely competitive pharmaceutical market.

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1.2.1 Marketing Mix Strategies

A company's overall strategy for communicating with customers and achieving results is known as the marketing mix strategy (Minchin & Alpert, 2017). In addition, Chan (2018) described marketing mix strategy as a long-term proactive planning arrangement with the main goal of achieving a sustainable competitive edge. Kotler (2015) states that companies use marketing mix strategies, such as price, place, promotion and product to adapt to external and internal factors to achieve marketing objectives. Using the model by Kotler (2015), the study conceptualizes

marketing mix strategies by operationalizing place, promotion, price, and product development strategies as independent variables.

Kotler and Armstrong (2006) states that, a product is something that can be sold to consumers to fulfill their needs or interests. Organizational product development strategy involves offering a combination of goods and services to target markets to satisfy their needs. This product strategy encompasses packaging, branding, quality attributes, as well as style, features, and design (Kotler, 2013). The pharmaceutical manufacturing sector in Kenya is heavily influenced by various aspects of product development strategy, including research and development, product clinical trials for regulatory compliance and approval from health authorities (KAM, 2017). The products offered by pharmaceutical manufacturing companies in Nairobi County were of particular interest in this research.

As used in this study, pricing strategy is defined as the amount of money paid for the product; the actual or estimated value of a valuable commodity subject to exchange (Kotler et al. 2005). The value obtained from the exchange is the price a customer pays for a manufactured pharmaceutical product as explained in this study (Kotler, 2015). In order to ensure the long-term sustainability of the pharmaceutical manufacturing sector in Kenya, pricing strategy plays a critical role in the industry's sales performance (KAM, 2017). Cost-effectiveness and profitability of the company's products must be properly balanced in pricing strategies.

A company's use of a particular combination of publicity, personal sales, sales promotion, public relations, and direct marketing to meet broader advertising and marketing goals has made promotion an essential part of the marketing mix configuration. In order to increase brand awareness and boost sales performance, the pharmaceutical manufacturing industry in Kenya uses a variety of strategies, such as the use of medical representatives, digital marketing, conferences, medical journals, and highlighting the advantages and special features of the product (Kenya Pharmaceutical Industry Report, 2019).

In terms of marketing mix strategy, location is crucial. Place strategy, in a marketing mix arrangement, is crucial, claims Harsono (2017). To increase market share and customer purchases, a business must decide where and how to place its goods and services. This is known as its place strategy. The distribution strategy, which comprises physical and online stores along

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with any other customer-facing channels, is one of the 4Ps (Harsono, 2017). Through a strong supply chain that guarantees the timely and dependable delivery of pharmaceutical products to pharmacies, hospitals, clinics, and other healthcare facilities, pharmaceutical entities work to develop a stable, most effective, and fluid distribution strategy that optimizes pharmaceutical sales performance. Effective distribution networks can also improve market reach by reaching a larger audience (KAM, 2017).

1.2.2 Kenyan Pharmaceutical Industry

In Kenya, the pharmaceutical sector is essential to the general public's access to healthcare. The pharmaceutical industry in Kenya is made up of three main players, according to the Kenya National Bureau of Statistics (2020); local manufacturers, distributors, and retailers. Together, these players significantly support the health care sector in Kenya. UNIDO 2019 reports that Kenya is the region's largest producer of pharmaceutical products, accounting for nearly half of the region's market capacity. However, over the past five years, the pharmaceutical industry in Kenya has experienced lower earnings due to an unregulated business environment. These findings are supported by World Bank statistics. Furthermore, overreliance on antiquated distribution systems, unregulated pricing regimes, subpar total quality management systems, and the use of antiquated promotional campaigns have all contributed to the pharmaceutical industry's 3% sales growth slowdown over the last five years (KNBS, 2020).

According to UNIDO (2019), there are 29 licensed pharmaceutical manufacturers in Kenya (see Appendix v), which consists of both domestic manufacturing firms and international conglomerates along with their subsidiaries. Nairobi County and its surroundings are home to the majority of these manufacturing concerns (Kenya Association of Manufacturers, 2017). In Kenya, there are more than 15,000 registered active pharmaceutical ingredients (APIs) (Kenya Pharmacy and Poison Board (PPB, 2021). The Kenya Medical Supplies Agency (KEMSA), a government-controlled organization, is the means by which the Kenyan government purchases medications produced both domestically and abroad. Using open tender procedures, it purchases roughly half of the medications produced in Kenya and supplies them to hospitals under government control systems (UNIDO, 2019).

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Kenya Pharmacy and Poisons Board (2018) states that the branded generic pharmaceutical market is more profitable than the branded market, and that this trend is anticipated to pick up speed due to rising government purchases of these brands and general price sensitivity in the market (Kenya Pharmaceutical Sector Profile Report 2019). Cap 244 of the Kenyan laws (Pharmacy and Poisons Act 2002) governs the pharmaceutical industry in Kenya. This governs Kenya's entire pharmaceutical product import, production, marketing, storage, and distribution chain.

Consequently, pharmaceutical products are divided into three categories based on how patients use them; over-the-counter (OTC) medications, which are available in pharmacies and supermarkets; pharmacy-only medications, which are found in pharmacies and are administered by pharmacists with training; and, lastly, prescription-only medications, which can only be obtained through properly executed physician prescriptions (Kenya Pharmacy and Poison Board (PPB, 2021).

Local pharmaceutical manufacturing industry is facing stiff competition from peers and from importers (KAM 2021); a local firm is one that is registered in Kenya (UNIDO, 2019). Most of the local firms are mostly family-controlled firms; among them include Cosmos pharmaceuticals, Dawa Limited, Regal pharmaceuticals, Njimia pharmaceuticals and Universal Corporation Limited. Most of these firms are located within Nairobi and its environs. These manufacturing concerns produce a wide variety of pharmaceutical products which are off-patent drugs which are similar with a little difference in formulation with branded original products. They repackage formulated medicines and process bulk drugs into doses using imported active pharmaceutical ingredients (APIs) (Kenya Association of Manufacturers, 2017). The financial performance of these local pharmaceutical firms is obscure in nature, since they are not strictly mandated to publish their annual financial reports. Additionally, these pharmaceutical firms are performing below per because of outdated distribution channels, pricing wars, lack of organizational protocols on products quality specifications and uncoordinated product campaigns (KAM, 2017)

The local pharmaceutical manufacturing industry in Kenya is facing tough competition from both local peers and importers. A number of these regional producers of pharmaceuticals actively participate in globally acknowledged process enhancements, such as adhering to WHO-GMP

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guidelines. The majority of them are currently improving their procedures in order to obtain WHO-Geneva recognition status, which may pave the way for financing from foreign donor organizations. Universal Corporations Limited, for instance, is one of only two companies in East Africa to have obtained WHO-Geneva prequalification for its anti-retroviral products in 2011 (UNIDO 2019).

1.3 Statement of the problem

The 4.3% growth rate in the global pharmaceutical market in 2020, a figure much lower than the average rate of the previous ten years, exemplifies the sharp decline in sales growth that the pharmaceutical industry has experienced in recent years (Laermann, Nguyen & Blackfish, 2021). According to Vugigi (2020), pharmaceutical sales in Kenya decreased from 13% in 2019 to 3% in 2020. The decline in pharmaceutical sales is not confined to particular regions of the world; it also affects developed markets such as North America and Europe, where pharmaceutical companies struggle with sales stagnation brought on by patent expirations, growing competition from generic pharmaceuticals, and pressure from healthcare organizations to maintain prices (Gurgula, 2020). Furthermore, pharmaceutical companies face particular difficulties in emerging markets like Africa with regard to the affordability and accessibility of healthcare.

The pharmaceutical industry in Kenya is experiencing a decline in sales performance, which indicates that, among other things, the sector is not meeting standards for product quality, is not adhering to good manufacturing practices, has outdated distribution channels, follows poor and unregulated pricing protocols and so on (UNIDO, 2019). The individual pharmaceutical companies must create and put into effect a supportive framework policy in terms of marketing mix strategies in order to accelerate sales growth (Kenya Pharmaceutical Industry Report, 2019). Pharmaceutical manufacturing players need to develop effective marketing mix strategies by clearly understanding how optimal sales can be achieved. This would help them achieve higher sales achievement while minimizing costs, which would improve the efficiency of their organizational operations. Kenyan pharmaceutical manufacturing companies must assess their marketing mix strategies, which include, competitive pricing, effective promotion, efficient distribution channels, and new product development techniques effectively in order to improve their market share, boost sales, gain a competitive edge, and ultimately boost organizational sales performance (KAPI, 2023).

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While previous studies have investigated marketing mix strategies in various contexts, they present several methodological gaps. Gituma (2017) analyzes the effect of marketing mix strategies on sales performance at Unga Feeds Limited, but its single company focus limits the generalizability of the findings. Kisaso (2017) studied SMEs' marketing strategies, but the results are not directly applicable to the pharmaceutical sector. Ndumia (2020) focused on commercial printing businesses, with challenges including skewed sampling and irrelevance to pharmaceuticals.

Recent studies by Weru (2018), Omondi and Adhiambo (2018), and Oyoolo and Bett (2017) explored different aspects of the pharmaceutical industry. However, these studies employed case study designs and focused on broader strategic management issues rather than specific marketing mix elements and their direct effect on sales performance. The current study employed a descriptive research design with a larger, more representative sample that provided a more comprehensive analysis. Lastly, previous studies lacked detailed conceptualization of how individual marketing mix elements specifically affect sales performance. The current study filled these gaps by examining the effect of marketing mix strategies on sales performance among pharmaceutical manufacturing companies in Nairobi County, Kenya.

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1.4 General Objective

The general objective of this study was to determine the effect of marketing mix strategies on sales performance among pharmaceutical manufacturing companies in Nairobi County, Kenya.

1.4.1 Specific Objectives

The research was guided by the following specific objectives;

i. To assess the effect of pricing strategy on sales performance among pharmaceutical manufacturing companies in Nairobi County, Kenya.
ii. To analyze the effect of product development strategy on sales performance among pharmaceutical manufacturing companies in Nairobi County, Kenya.
iii. To evaluate the effect of promotion strategy on sales performance among pharmaceutical manufacturing companies in Nairobi County, Kenya.

iv. To examine the effect of place strategy on sales performance among pharmaceutical manufacturing companies in Nairobi County, Kenya.

1.5 Research Questions

The study addressed the following research questions;

i. What are the effects of pricing strategy on sales performance among pharmaceutical manufacturing companies in Nairobi County, Kenya?
ii. How does product development strategy affect sales performance among pharmaceutical manufacturing companies in Nairobi County, Kenya?
iii. In what ways does promotion strategy affect the sales performance among pharmaceutical manufacturing companies in Nairobi County, Kenya?
iv. What are the effects of place strategy on sales performance pharmaceutical manufacturing companies in Nairobi County, Kenya?

1.6 Justification of study

The urgent problem of pharmaceutical manufacturing companies in Nairobi County, Kenya, having suboptimal sales performance was the focus of the study. Empirical data highlighting a concerning decline in pharmaceutical sales growth within the region highlights the significance of this problem. According to recent statistics, there has been a significant decline in pharmaceutical sales growth from 13% in 2019 to 3% in 2020 (Vugigi, 2020). The financial sustainability of pharmaceutical companies is at risk due to the notable downturn in sales growth, which also has wider implications for public health and the availability of necessary medications in Kenya.

In the face of these challenges, there are critical chances and policy factors that emphasize the significance of studying the effect of marketing mix strategies on sales performance in the pharmaceutical market in Kenya. The unique market dynamics and consumer behaviors in Kenya require customized marketing approaches. It is essential to comprehend the intricacies of marketing mix strategies in this setting in order to create successful sales strategies that connect with local consumers and promote growth. Furthermore, there are plenty of opportunities for

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pharmaceutical companies to profit from among the difficulties. These include the rise in consumer health awareness, the need for healthcare services, and government programs to increase access to necessary medications. Pharmaceutical companies can take advantage of these opportunities, increase their market share, and boost sales in the Kenyan pharmaceutical market by implementing marketing mix strategies effectively.

The pharmaceutical manufacturing companies in Nairobi County will thus gain useful guidance and understanding from this research to enhance their marketing strategies, expand their customer base, and increase revenue. The research findings would also have an effect on specific policy areas that are related to product registration, pricing, and distribution in Kenya's pharmaceutical market.

1.7 Significance of the study

The purpose of the study was to examine how Nairobi County manufacturing pharmaceutical companies' sales performance is affected by their use of marketing mix strategies. Notably, this study would be helpful to those who are interested in addressing issues of suboptimal sales performance and making the most of opportunities related to the sales performance of Nairobi's pharmaceutical manufacturing sector. The following groups would be affected practically by the study's findings.

1.7.1 Pharmaceutical manufacturing industry

Based on the results of the study, Nairobi County pharmaceutical manufacturing companies should concentrate on improving their distribution networks in order to guarantee prompt and effective product delivery. As part of this, they should invest in cutting-edge logistics technologies and establish solid alliances with dependable distributors. Pharmaceutical manufacturers in Nairobi County should incorporate a variety of marketing communications channels, including advertising, personal selling, and sales promotions, to optimize the impact of their promotional initiatives. According to the study's findings, managers of pharmaceutical manufacturing companies in Nairobi County must constantly evaluate their pricing strategies in order to stay competitive and meet market demands. The study also offer recommendations regarding how pharmaceutical companies should inform their customers on a regular basis about new product offerings, variations, and ways to enhance their current offerings to increase sales.

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1.7.2 Researchers and scholars

Researchers, scholars, and marketing experts should work with the pharmaceutical manufacturing industry to gain practical evidence, expand their knowledge base, and collaborate with the study's findings. As a starting point for future research, the study results will most likely be included in the literature review as well. The precise impacts of digital marketing tactics on pharmaceutical sales performance should be the subject of future studies. Examine the ways in which various digital platforms, like social media and e-commerce sites affect consumer interaction and sales results. Further research ought to examine the efficacy of different pricing strategies in diverse market segments and geographical areas, encompassing competitive and penetration pricing. Pricing strategies can be optimized by taking into account the effect that these strategies have on sales performance.

1.7.3 Policy Makers

Nairobi County businesses that manufacture pharmaceuticals ought to interact with policy makers to provide an enabling business environment that lower operating costs and make it easier for new products to enter the market. They ought to advocate for government assistance for domestic manufacturing and push for tax breaks on imported APIs. It is imperative that policymakers implement policies that are conducive to the competitive advantage of pharmaceutical manufacturing companies and curtail their expenses. The Nairobi County pharmaceutical manufacturing industry should also collaborate with regulatory organizations to expedite and simplify the regulatory procedures for product approval and market entry so as to optimize on sales objectives.

1.8 Scope of the study

This study focused on examining the sales performance among 20 pharmaceutical manufacturing companies exclusively in Nairobi County, Kenya, with a time scope from January 2024 to June 2024. The research was confined to the pharmaceutical manufacturing sector and excluded markets outside Nairobi County and companies involved in wholesaling and retailing pharmaceutical products. Methodologically, the study employed a descriptive research design, utilizing semi structured questionnaires distributed to a sample of 94 respondents selected through simple random and purposive sampling techniques. The analysis covered key aspects of the marketing mix; pricing strategies, product development strategies, promotion strategies, and

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place strategies, to assess their effects on sales performance among pharmaceutical manufacturers within Nairobi County, Kenya.

1.9 Assumptions of the study

The study assumed that the pharmaceutical companies in Nairobi County employed the marketing mix strategies identified in the research, including pricing, product development, promotion, and place strategies. It was also assumed that participants were aware of the purpose and implications of these strategies and were capable of providing accurate information. The study further assumed that the sample size selected was appropriate for yielding meaningful insights into the effect of marketing mix strategies on sales performance. It was assumed that respondents answered the questionnaires honestly and transparently. The researcher maintained strict confidentiality and encouraged participants to provide sincere and honest responses, facilitating the accuracy and reliability of the study's findings

1.10 Limitations and Delimitation of the study

1.10.1 Limitations of the study

Many limitations were faced by the research study. To collect primary data, semi-structured questionnaires were employed; initially, responding to the questionnaires took some time, especially for those respondents with busy schedules. The researcher circumvented this by allowing respondents with demanding schedules ample time to finish the email-based questionnaires and provide valuable information that answered the research questions. Due to differences in their understanding and what was practically applicable to their organizational settings, respondents initially interpreted closed-ended questions in different ways. By explaining the terms used, the researcher overcame this difficulty through facilitating the respondents' ability to adequately understand the research questions. In order to overcome the challenge of respondents struggling to provide concise answers to open-ended questions that demanded thorough answers, the researcher gave them enough time to consider their answers and provide well considered responses.

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1.10.2 Delimitations of the study

This research study focused specifically on pharmaceutical manufacturers located in Nairobi County, Kenya; the study did not extend to other pharmaceutical manufacturers located in other counties or regions of the country. This provided an excellent opportunity to carry out an in-depth analysis that is focused to a particular region. The study did not extend to include other products other than pharmaceuticals. This research did not extend its study scope to include other closely related contexts like pharmaceutical supply chains, pharmaceutical distributorship and pharmaceutical retailing in Nairobi County.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section reviewed the literature related to marketing mix strategies on sales performance among companies manufacturing pharmaceutical products in Nairobi County, Kenya. This chapter also reviewed relevant theories that informed the study, empirical reviews were also looked into, conceptual framework was considered and finally research gaps were also analyzed.

2.2 Theoretical Review

The study employed four foundational theories; the Marketing mix theory, the Response hierarchy theory, the Depot theory of distribution, and the Diffusion of Innovation theory. Together, these theories provided a robust framework for determining the effect of marketing mix strategies on sales performance among pharmaceutical manufacturing companies in Nairobi County.

2.2.1 Marketing Mix Theory

Marketing mix theory, initially introduced by Borden in 1965 and later refined by Kotler and Keller (2006), remains a cornerstone of marketing strategy. The theory, which organizes marketing activities around the 4Ps; product, price, promotion, and place has been instrumental in guiding businesses in their efforts to effectively market goods and services. Gronroos (1994) further developed the theory to accommodate evolving market dynamics, emphasizing the need to align marketing strategies with customer desires, habits, and psychological profiles (Blut, Teller & Floh, 2018). This review critically evaluates the application of marketing mix theory to the pharmaceutical industry, particularly focusing on its relevance to the sales performance of pharmaceutical manufacturers in Nairobi County, Kenya.

The traditional 4Ps framework has historically been effective, especially in economies dominated by physical products (Gronroos, 1994). However, the complexity of the pharmaceutical industry, with its strict regulations, ethical considerations, and extended sales cycles, presents unique

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challenges. In response to these challenges, the marketing mix has evolved to include additional elements often referred to as the extended Ps which encompass people, processes, and physical evidence (Kraak et al., 2017). These additional elements are particularly relevant in industries like pharmaceuticals, where the consumer's trust in the product is critical and the interaction between the customer and the company is more complex.

In the pharmaceutical industry, the "product" component involves more than just the physical drug; it also includes aspects like drug efficacy, safety, and compliance with regulatory standards. Pharmaceutical companies in Nairobi County, for instance, must ensure that their products meet these stringent criteria to build trust with healthcare professionals and consumers. The "price" element is equally nuanced in this industry, as pricing strategies must consider factors such as government regulations, insurance reimbursement policies, and the financial capacity of different market segments. A well-designed pricing strategy can significantly influence market demand, positioning the company favourably within the market (Kotler & Keller, 2006).

"Promotion" in the pharmaceutical context often includes advertising through medical journals, sponsorship of medical conferences, and direct marketing to healthcare professionals. These promotional activities are critical in influencing the choices of doctors and pharmacists who, in turn, affect consumer decisions. However, this aspect of the marketing mix is constrained by regulatory restrictions that limit direct-to-consumer advertising in many regions (Fulone et al., 2023). This regulatory environment necessitates a more strategic approach to promotion, where pharmaceutical companies must rely heavily on building strong relationships with healthcare providers and leveraging educational campaigns to ensure product awareness and acceptance.

The "place" or distribution strategy in the pharmaceutical industry involves ensuring that drugs are available where and when they are needed, which is particularly important in a region like Nairobi County. Effective distribution channels must consider factors such as the shelf life of drugs, the need for proper storage conditions, and the geographical spread of healthcare facilities (Kumar & Srilekha, 2023). Pharmaceutical companies must select and manage distribution partners who are capable of maintaining the integrity of the products from the point of manufacture to the end-user, thereby optimizing sales performance.

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Despite its usefulness, marketing mix theory has limitations when applied to the pharmaceutical industry. The traditional 4Ps framework does not fully capture the complexities of marketing in a sector where decisions are influenced not just by consumers, but also by a wide range of stakeholders including healthcare providers, regulatory bodies, and insurance companies. For instance, the influence of healthcare professionals on drug sales presents a challenge to traditional consumer-focused marketing strategies (Purcarea, 2019). Furthermore, the impact of government health policies, such as the regulation of drug prices and the approval of new treatments, can significantly alter the effectiveness of traditional marketing tactics (Kumar & Srilekha, 2023). These dynamics require a more sophisticated approach that incorporates elements beyond the traditional marketing mix, such as patient outcomes and value-based care models, which are increasingly important in the healthcare industry.

Moreover, the growing emphasis on patient-centred care necessitates a shift in marketing strategies, where the focus moves from merely driving sales to improving patient outcomes (Edgman-Levitan & Schoenbaum, 2021). This shift complicates the application of marketing mix theory, as pharmaceutical companies must now integrate patient education, adherence programs, and value-based pricing into their marketing strategies, elements that are not traditionally covered by the 4Ps framework.

In terms of consumer focus, it is essential to recognize that while healthcare professionals play a crucial role in the pharmaceutical purchasing process, the end consumers-the patients are ultimately the ones who use the products (Mosadeghrad, 2014). Therefore, pharmaceutical companies in Nairobi County must develop marketing strategies that not only target healthcare providers but also address the needs and concerns of patients. This dual focus ensures that marketing efforts are comprehensive and effective in driving both prescriber recommendations and patient adherence.

2.2.2 The Response Hierarchy Theory

The response of hierarchy theory was developed by Lavidge and Steiner (1961). It provides insight into how different advertising approaches influence consumer decision making processes and ultimately sales performance. By examining consumer responses according to cognitive, affective and behavioral stages, this theory can explain the effectiveness of different promotional strategies used by pharmaceutical manufacturers in Nairobi County.

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This approach, which includes essential phases such as product shipment, advertising, and acquisition, is crucial for raising consumer awareness. According to Lavidge and Steiner (1961), the consumer journey involves progressing through six steps: awareness, knowledge, preference, conviction, and ultimately, acquisition. Marketers should aim to guide a substantial number of clients to the final stage of the purchase by employing innovative techniques, as Lavidge and Steiner (1961) argue that there is a hierarchy of impacts where the number of customers typically decreases from one level to the next.

The Response hierarchy theory provides valuable insights into how consumers make purchasing decisions based on the nature of the product and the level of involvement required. This theory outlines different sequences of consumer decision-making: learn-feel-do, do-feel-learn, and learn-do-feel, each corresponding to specific types of products and consumer interactions.

First, the learn-feel-do sequence is most effective for products that are highly differentiated and require significant consumer involvement. For instance, purchasing a house falls into this category. The decision to buy a home involves a substantial financial and emotional commitment, and the process typically begins with the consumer gathering information about different options (learning). After evaluating the alternatives, the consumer develops an emotional preference for a specific property (feeling), and finally, makes the purchase (doing). This sequence reflects the thorough and deliberate nature of the decision-making process for high-involvement products where the differences between options are significant (Lavidge & Steiner, 1961).

Second, the do-feel-learn sequence applies to products that, while requiring high consumer involvement, offer little differentiation between options. An example of this is the purchase of plane tickets. Consumers often make quick decisions based on practical considerations such as flight schedules, prices, and airline reputation (doing), and then form feelings about their choice (feeling), and only afterward may they reflect on their decision by gathering more information about the airline or their flight experience (learning). This sequence acknowledges that, even when product differentiation is low, the consumer's decision-making process remains highly involved due to the nature of the service (Lavidge & Steiner, 1961).

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Finally, the learn-do-feel sequence is suited to products that require low consumer involvement and have little differentiation, often referred to as fast-moving consumer goods (FMCGs). Sugar is a prime example. In this case, consumers typically become aware of the product's availability (learning), make the purchase with minimal deliberation (doing), and only later may they develop a preference or emotional connection to a specific brand (feeling). The low level of involvement and differentiation means that the decision-making process is quick and often based on convenience or price rather than brand loyalty (Lavidge & Steiner, 1961).

Understanding these sequences allows marketers to tailor their strategies to align with how consumers interact with different product categories, thereby enhancing the effectiveness of their promotional efforts and better influencing consumer behaviour.

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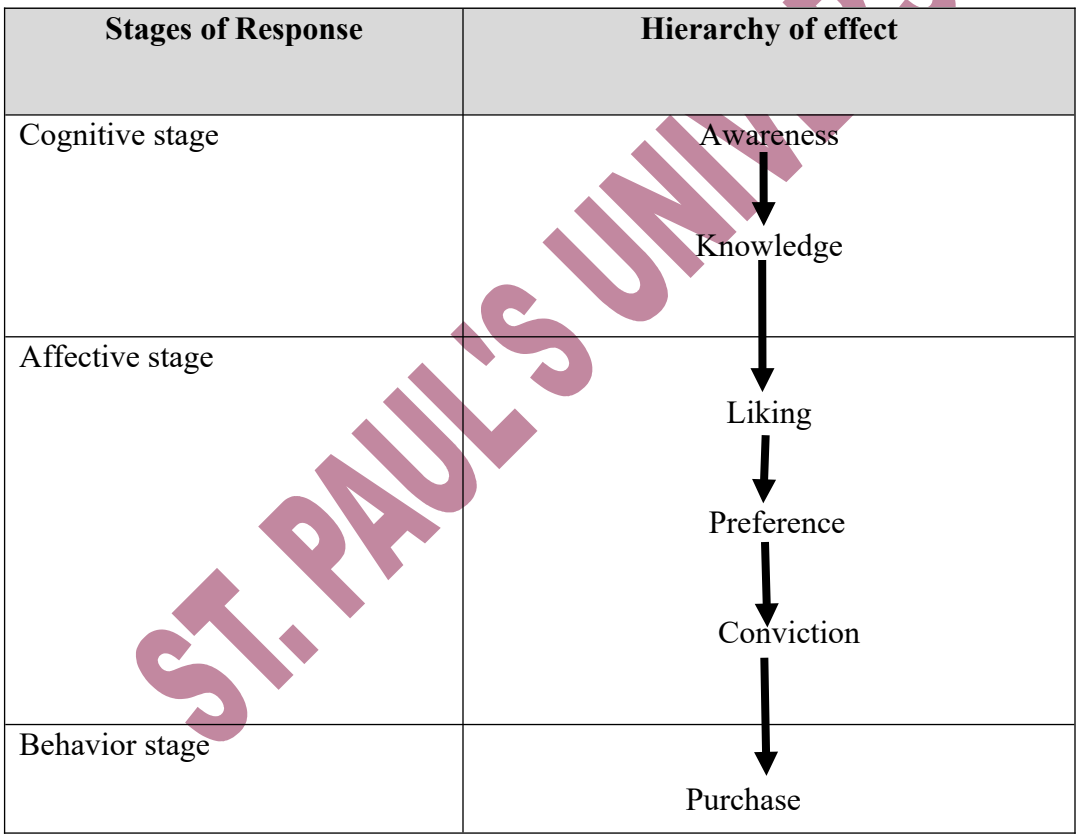


Fig: 1

Response Hierarchy model
Source: (Kotler et al. 2009) Pg. 462

According to the figure, the classification of products as low-involvement and low-differentiation is contingent upon the type of product. For instance, while the Response hierarchy

theory might categorize some products as low-involvement and low-differentiation, this categorization is more complex when applied to pharmaceuticals. The level of consumer involvement in purchasing medication often varies significantly depending on the type of drug. For critical or prescription medications, the purchase process is typically high-involvement due to the direct impact on personal health and well-being. Consumers are likely to invest significant time and effort into understanding the medication, evaluating options, and consulting healthcare providers, even when the product itself may seem low-differentiation, particularly in the case of generic drugs (Rajiah, Sivarasa & Maharajan, 2021).

However, for over-the-counter (OTC) medications, the situation might differ. OTC drugs can sometimes be viewed as low-involvement purchases, especially when the consumer is familiar with the product and perceives minimal risk. In such cases, differentiation between products may appear low, as consumers may choose based on convenience or brand familiarity rather than detailed comparison. Nonetheless, even for OTC medications, the potential health implications of the drug choice can elevate the involvement level, making the consumer decision process more complex than for other low-differentiation products (Kotler et al., 2009).

Advertising decisions for these products significantly impact their sales performance. Customers typically gather information about pharmaceutical products from various sources, including advertisements, brochures, and sales promotions, before making a purchase. After purchasing, they evaluate their experience with the product. A positive experience often leads to repeat purchases, while a negative experience drives consumers to seek alternative products from competitors (Kotler et al., 2009).

This theory provides a relevant and significant approach in a analyzing the sales performance among companies manufacturing pharmaceutical products within Nairobi County. Pharmaceutical manufacturing companies would be able align their promotional strategies that would eventually provide a sustained brand visibility. The approaches include, personal selling to health care prescribers, Advertisement via medical journals, medical magazines sponsorships of medical events, and sales promotion by use of samples so as to create product visibility in the

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competitive pharmaceutical market place and boost overall sales of the organization (Lavidge & Steiner, 1961).

Although the response hierarchy theory is comprehensive in consumer decision making, it has several limitations. Its linear model oversimplifies the complexity of consumer behavior and often overlooks the non-linear and multifaceted nature of purchase decisions, which are influenced by various factors such as emotions and situational context (Schiffman & Kanuk, 2010). Furthermore, the fact that the theory does not consider contextual factors and post-purchase behavior limits its predictive power and applicability to real-world marketing scenarios (Kotler & Keller, 2016). Additionally, it ignores cultural and individual differences in consumer responses, leading to general assumptions that may not apply across populations (Solomon, 2017). Although response hierarchy theory provides a basic framework, its limitations emphasize the importance of combining complementary theories and methodologies to gain a more comprehensive understanding of sales performance and consumer behavior in a marketing context (Kotler et al., 2009).

2.2.1 Depot theory of Distribution

Aspinwall developed the Depot theory of distribution in 1958. According to the theory, goods move to consumption at a rate determined by the exchange needs of the end consumer. Depot theory of distribution can be applied to analyze how location strategies such as distribution channel planning and logistics management affect sales in the pharmaceutical industry in Nairobi County. This theory examines the role of central warehouses, distribution networks and inventory management in optimizing drug market access and maximizing sales efficiency.

As Aspinwall (1958) specified, the rate of substitution is inversely proportional to gross margin, required services, search time and consumption time. Thus, knowing the displacement velocity provides information about other characteristics that determine the flow rate. The issue of which stores in an organization (including manufacturers, distributors, wholesalers, retailers, households) hold and change inventory, as discussed by Bucklin (1965), delay and speculation theory. Alderson (1965) developed the delay component, arguing that changes in products and inventory should be delayed to the last possible point in the marketing link to reduce risk. Bucklin (1965) added a theory of the effects of speculation that changes in form and inventory

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ownership should be made as early as possible in the market flow to exploit economies of scale. Thus, speculation exploits the lower costs of early modification of goods to achieve economies of scale, leading to mass production, while delay reduces risk by modifying goods later to segmented demand, leading to today's mass customization.

The Depot theory of distribution tries to explain how the movement of goods can be accelerated (location strategy) to meet customer demand (Bowersox & Closs, 1996). This theory is related to the study as it aims to identify the best distribution channels (location strategies) that these pharmaceutical companies in Nairobi County can leverage on to distribute pharmaceutical products to customers in the shortest possible time. The depot theory of distribution is an appropriate approach that can be used to analyze the sales of pharmaceutical companies in Nairobi County. This is an important theory that develops the location strategy approaches adopted by these companies. This is so that companies can take advantage of this theory by developing an effective placement strategy that aligns with the organization's marketing goals. This overall marketing strategy would take into account factors such as drug shelf life, storage requirements and delivery system needs (Ballou, 2004). With the depot theory of distribution, these pharmaceutical manufacturers can also choose experienced channel partners to distribute pharmaceutical products, to optimize their sales performance. It would also strengthen collaborations and joint venture activities such as customer service management systems, product portfolio training, and logistics management systems and provide refresher training, promote sales of pharmaceutical products and improve the overall sales performance of the organization (Christopher, 2016).

The depot theory of distribution provides valuable information for the optimization of distribution networks, but faces several limitations that prevent its application in modern supply chain management (Mentzer et al., 2001). Its static nature and overly simplistic assumptions may not effectively adapt to dynamic market conditions, changing customer preferences and logistical complexities in a real distribution environment. Additionally, the theory's reliance on centralized warehouses and predetermined routes can limit flexibility and responsiveness to unexpected disruptions or changes in demand (Harrison & van Hoek, 2011). In addition, the assumption of homogeneity of market demand ignores different preferences and buying behavior in different markets, which requires more tailored and adapted distribution strategies. As supply chain

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operations evolve with technology and logistics practices, companies must complement traditional theories such as Depot theory with a more agile and flexible approach to distribution management systems to meet the demands of modern logistics environments (Coyle et al., 2016).

2.2.2 Diffusion of Innovation theory

In his book, Rogers (2003) describes the diffusion of innovation theory as the pattern and speed at which new ideas, practices, and products spread through the population. This theory conceptualizes an idea or how an object gathers energy and spreads through an articulated population or social setting (Rogers, 2003). For Rogers (2003), adoption is the decision "to take full advantage of an innovation as the best possible course of action" and rejection is the decision "not to accept the innovation" (p. 177). Innovation theory can be applied to understand how product development strategies affect sales performance by studying the introduction and diffusion of new pharmaceutical products. This theory considers innovation characteristics, communication channels and social dynamics to analyze how product development initiatives contribute to sales growth in pharmaceutical companies in Nairobi County.

Rogers (2003) explains that diffusion is "the process by which an innovation is transmitted over time through various channels between members of a social system" (p. 5). In this context, the four main components of innovation diffusion are innovations, communication channels, time, and the social system. The stages of innovation adoption and diffusion include awareness of the need for the innovation, the decision to accept or reject the innovation, initial use of the innovation to test it, and continuous use of the innovation. Five main factors influence the adoption of innovations, and these factors affect the five user categories to varying degrees. The five categories of adopters are innovators, early adopters, early majority, late majority, and laggards (Rogers, 2003).

The urge to try a new product before everyone else does is a defining trait of innovators. Those that welcome change and are at ease with new concepts are considered early adopters. People who accept innovations ahead of the typical person are known as the early majority. A trait of the late majority is their resistance to change; they don't embrace innovations until the majority of people have done so. The last group to adopt new technology is the laggards, who are extremely conventional and conservative and are the hardest to persuade (Rogers, 2003).

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This theory is relevant to this study because it can be used to determine how a pharmaceutical company can align its product strategy with best manufacturing practices that follow standard operating procedures required by the company, which include product quality standards and advanced implementation of R/D methods, product differentiation strategies and product branding (Rogers, 2003). If a drug manufacturer implements all these requirements at an early stage, it is sure to produce products that attract customers. An innovative product inevitably attracts a huge customer base and thus increases sales revenue (Kurtmollaiev, 2022). Thus, this theory provided an important approach to analyze how pharmaceutical manufacturing companies in Nairobi County can adopt cutting-edge technologies in manufacturing innovative products that attract a large consumer base, ultimately increasing sales volume.

To sum up, the Diffusion of Innovation theory provides insightful information about how innovations spread, but it may have limitations in some situations and may not fully capture the role that organizations play in the process of change, making it less applicable to research on how innovations are implemented within organizations (Garcia-Aviles, 2020). Moreover, the theory may not take into account all the subtleties and complexities of innovation diffusion, such as the influence of homophily and social ties on the rate of diffusion.

The fact that this theory has certain drawbacks must also be acknowledged. Firstly, a large portion of the research comes from marketing theory. The theory is therefore context dependent rather than broadly predictive due to the ensuing conflict of assumptions (Garcia-Aviles, 2020). Furthermore, the theory fails to incorporate the mutually reinforcing effects of the various contexts and domains that nearly all emerging technologies function within (Kurtmollaiev, 2022). As a result, although each central box includes a key justification for non-adoption, it does not clarify how this justification relates to or differs from other factors. The innovation research tradition finds value in this as it offers a step-by-step framework for strategic decision-making. However, sociologists might consider these explanations excessively straightforward without taking the system as a whole into account.

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2.3 Empirical Review

2.3.1 Pricing strategy and its effect on sales performance

A number of empirical studies have investigated the effect of prices on pharmaceutical sales performance. Abdel and Mohamed (2017) conducted a cross-sectional study that analyzed the pricing strategies of different pharmaceutical manufacturers and the corresponding data on sales of pharmaceutical products in developing countries. The results showed a positive correlation between competitive pricing and higher sales volumes. Manufacturers that used competitive pricing strategies saw increases in market share and revenue for their drug product offerings. This study is more general so the results may not be applicable to the Kenyan context. In addition, the cross-sectional study design did not use an appropriate approach because it measures data at a single point in time. The current study compared pricing strategies and sales performance of pharmaceutical products across different pharmaceutical manufacturers in Nairobi County.

In contrast, the study by Johnson and Patel (2019) used a longitudinal approach to examine the impact of price changes on sales development over time. They found that significant price cuts in pharmaceutical products led to short-term sales growth, but in the long term, excessive price cuts were associated with reduced profitability and potential quality problems. This study highlighted the importance of finding a balance between pricing strategies that attract customers and maintaining profitability for continued sales success. Although the study notes the short-term effects of a significant price reduction on sales growth, it does not delve into the long-term causes of the drop in profit and possible quality problems. In addition, a longitudinal approach requires a large sample to be significant, and they are expensive, so they can take a long time to conclude. This study focuses on the mechanisms that lead to these results and how drug manufacturers find the optimal balance between attracting customers through competitive pricing and maintaining profitability to achieve sustained sales performance. The study uses descriptive research that is easy to describe, explain and explain. The current study focused on the mechanisms that lead to these outcomes and how pharmaceutical manufacturers strike an optimal balance between attracting customers through competitive pricing and maintaining profitability for sustained sales performance and adopted a descriptive research design that was easy to describe, explain and validate research findings.

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In an experimental study by Gupta and Lee (2020), different pricing strategies for pharmaceutical products to understand consumer behavior involved presenting participants with different pricing scenarios and measuring their purchase decisions. The results showed that a moderate price reduction compared to original brand drugs had a positive effect on consumer purchasing behavior and led to an increase in drug sales. However, the study did not examine the psychological or economic mechanisms that lead to this behavior. Understanding the specific reasons why consumers respond favorably to moderate price reductions compared to original brand drugs would provide valuable information for drug manufacturers seeking to optimize their pricing strategies. Second, the challenge of applied experimental research is that it cannot control or manipulate external variables, thus affecting the validity of the study and its results.

In addition to the direct effect of pricing on sales performance, few studies have examined the effect of pricing strategies on consumer perceptions of pharmaceutical products. Chang and Kim (2021) conducted a survey-based study to investigate how prices influenced consumer perceptions of drug quality and efficacy. The results showed that prices had a significant effect on consumer perceptions when cheaper drugs were associated with lower quality. This finding highlights the importance of considering price perception and its effect on consumer purchasing behavior. However, this study did not further investigate the reasons why cheaper drugs are associated with poorer quality, which is the focus of this study.

2.3.2 Product development strategy and its effect on sales performance

According to Johnson et al. (2018) on a longitudinal analysis of new product introductions and their subsequent sales development by pharmaceutical companies. The results showed a positive correlation between the frequency of new product launches and increased sales. Manufacturers who actively invested in new product development projects experienced better acceptance and customer loyalty, which led to better sales. However, the study did not clarify the specific factors or mechanisms driving the positive relationship between new product developments and increased drug sales. The purpose of this study is to understand the specific characteristics of new product development that lead to better market acceptance and customer loyalty.

In contrast, a study by Patel and Lee (2019) examined the effect of specific new product features, such as enhanced formulations or extended-release versions of existing medicines, on sales

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performance. The research involved a comparison of sales data before and after the introduction of these new product variations. The findings indicated that novel product developments that offered improved patient convenience or therapeutic benefits were associated with increased sales and market share. However, the study did not delve deeper into the underlying reasons for this relationship. This study explored the underlying mechanisms, considered contextual factors, and investigated marketing strategies for optimizing the sales performance of novel product developments in the pharmaceutical industry.

Gupta and Chang (2020) carried out a comparative study of pharmaceutical companies with variable drug R&D investments to analyze the relationship between R&D spending and subsequent sales. The results showed that higher research and development investments were positively correlated with better sales results, which shows the importance of innovation and continuous product development in the success of pharmaceutical sales. This current study examined in depth the innovations, improvements or competitive advantages that result from increased R&D investment and positively affect drug sales.

In addition to the direct effect of new product development on sales performance, few studies have examined the role of marketing activities in promoting new drugs. For example, Lee and Mohamed (2021) conducted a survey-based study to evaluate the effectiveness of marketing campaigns and advertising of new drug launches. The results showed that well-executed marketing initiatives had a positive effect on customer awareness and purchase intention, leading to sales of new pharmaceutical products.

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2.3.3 Promotion strategy and its effect on sales performance

A study carried out by Chen et al. (2018) on the sales effectiveness of various promotional techniques such as discounts, coupons, free samples and loyalty programs showed that well-targeted and effectively implemented promotional strategies can lead to short-term sales growth for pharmaceutical products. However, the study also showed that relying on a promotional-only approach as a long-term strategy may not lead to sustainable sales growth, as consumers may become accustomed to reduced prices after campaigns end and show reduced loyalty. This study did not examine the effectiveness of specific tactics in selling pharmaceutical products. The current study compared the effectiveness of different strategies (pricing strategies, location

strategies, product development methods). Additionally, it also delved deeply into promotional tactics such as discounts vs. loyalty programs or free samples vs. vouchers, word of mouth approaches that help drug manufacturers find the most appropriate consumer behavior that hugely influences purchase decisions.

In contrast, a longitudinal study by Lee and Wang (2019) explored the effect of continuous promotional efforts on sales performance over time. The research showed that consistent and well-planned s promotional activities positively influenced sales volumes for pharmaceutical products and contributed to maintaining customer interest and loyalty in the long run. The study emphasized the importance of integrating promotional strategy into an overall marketing strategy and ensuring that promotions align with broader business objectives.

In addition, a study by Kim and Park (2020) compared the effectiveness of traditional advertising methods, such as in-store promotions and direct sales, with digital advertising strategies, including social media marketing and online advertising. The study found that digital advertising strategies were more effective in reaching a wider audience, generating online sales and increasing brand awareness. However, traditional advertising methods played an important role in building relationships with healthcare providers and facilitating product distribution.

2.3.4 Place strategy and its effect on sales performance

According to Murphy et al. (2021) delved into the dynamics of the pharmaceutical supply chain, focusing on the effect of inventory management on sales performance. The purpose of this mixed method was to uncover the complex relationship between dispensing practices and drug sales performance. Using qualitative interviews and quantitative surveys, the researchers worked with a diverse sample of 45 pharmaceutical manufacturers operating in different regions. The qualitative phase involved in-depth interviews with supply chain managers and sales managers to gain insight into inventory management strategies. Afterwards, a structured survey was conducted for a wider group of stakeholders, where the relationship between stock turnover, stock levels and general sales development was assessed. The results of the study showed that effective inventory management plays a key role in influencing sales results. Companies that maintained optimal inventory minimized inventory and efficiently allocated resources to

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production saw significant improvements in sales volumes. However, this study was conducted elsewhere and the findings may not be applicable to the Kenyan context.

A comprehensive study carried out by Zhang et al. (2022) on exploration of the role of technology-driven supply chain innovations on the sales performance of pharmaceutical companies aimed to assess the impact of technological advancements, such as block chain integration and data analytics, on supply chain efficiency and subsequent sales outcomes. A structured survey was disseminated to a sample of 60 pharmaceutical manufacturers operating within both developed and developing markets. The survey captured data on the extent of technology adoption within their supply chains, as well as key performance indicators related to sales performance. Additionally, qualitative interviews were conducted with select participants to gain deeper insights into the mechanisms through which technology influences supply chain and sales dynamics. The study's findings revealed a positive correlation between technology-driven supply chain innovations and sales performance. Pharmaceutical companies that embrace cutting-edge technologies demonstrated enhanced visibility, traceability, and real-time data analytics capabilities. However, this study did not look at the challenges of technology adoption in supply chain. This study comprehensively analyzed the challenges and barriers that pharmaceutical companies encounter when adopting technology-driven distribution logistics' innovation.

A study by Oketch (2019) applied a descriptive design study to determine supply chain performance metrics for pharmaceutical manufacturers in Kenya. The information was obtained through a questionnaire filled out by the respondents themselves, and there were a total of 25 respondents, which corresponds to a 78% response rate. According to the results of the study, a total of six distinct metrics can be used to evaluate a supply chain. These metrics include: cash-to-cash cycle time, manufacturing flexibility, delivery performance, flawless order fulfillment, total cost of supply chain management and e-commerce efficiency. Combining these supply chain performance metrics has been found to lead to higher levels of overall corporate performance. It was suggested that all pharmaceutical companies prioritize the application of these six supply chain performance criteria to improve the overall performance of their companies.

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2.3.5 Marketing mix strategies and its effect on Sales Performance

A study by Kisaso (2017) examined "the impact of marketing strategies on Kenyan SMEs, revealing that product growth strategies, promotional strategies, location strategies, and distribution strategies positively influenced the performance of these enterprises." However, the study's broad scope did not provide a detailed analysis of how marketing strategies specifically affect SME performance in Kenya. In contrast, the current study narrows its focus to understand how these marketing strategies impact drug sales among pharmaceutical companies in Nairobi County. Similarly, research by Gituma (2017) on "the sales performance of the marketing mix for Unga Feeds Limited Kenya indicated that the 4Ps of the marketing mix strategy positively influenced sales performance." Nonetheless, this study was limited to a single company and a different industry, making its findings less generalizable to other contexts.

2.4 Conceptual Framework

A conceptual framework (Figure 2) is a model that explains the links between the concepts or variables employed in the investigation. A researcher can use it as a collection of guidelines (variables) to accomplish their objectives. The techniques that make up the marketing mix, such as pricing, place, product development, and sales promotion, are thought of as independent variables. As the dependent variable, sales cycle time, customer happiness, product portfolio, and customer conversions are used to assess the sales performance of pharmaceutical enterprises in Nairobi County.

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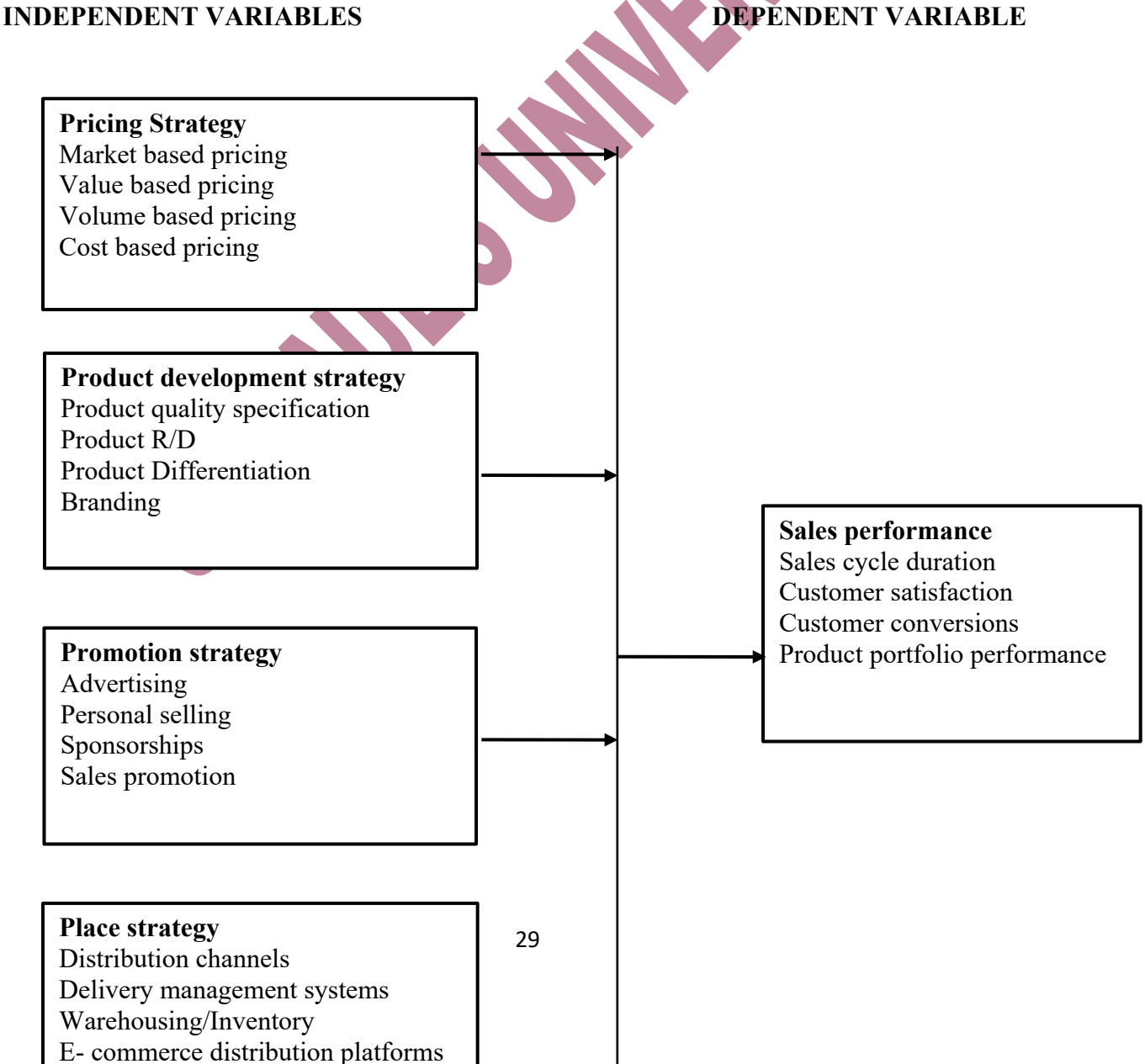


Fig: 2 Conceptual Framework
Source: Author (2024)

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2.4.1 Pricing Strategy

Organizational decisions made to achieve the value a customer pays to enjoy or experience a service. It determines the survival and profitability of the company (Daniel 2018). In this case, the pricing strategy can be described as the ability of the pharmaceutical manufacturer to evaluate what it receives by changing its products, taking into account production costs, competition, among others. These pricing strategies; market-based, value-based, volume-based, and cost-based, among others explain pricing strategy in this instance. Pricing strategy, as defined by Imoleayo (2017), is a tactic used by a business to position its products competitively in the market. It considers a variety of factors, including rival activity, market conditions, consumer segmentation, ability to pay, operating profits and inputs, costs, amongst others.

2.4.2 Product development Strategy

Product strategy is defined by Kotler (2005) as any tangible goods or services which can be made available for purchase or use in order to meet the demands or desires of customers. As a result, the product is beyond being an inexpensive, packaged good that may be purchased. Drug quality, investigation and creation techniques, product differentiation, and product branding are used in this proposed study to illustrate product development strategy.

According to Kotler (2005), a product strategy encompasses any tangible product or service that can be made available for purchase or use in order to fulfill the desires or requirements of the client. As such, the item being sold is more than merely a commercially available generic packaged good. The quality of pharmaceutical products, research and development techniques,

product differentiation, and product branding were used in this study to illustrate the product development strategy.

2.4.3 Promotion Strategy

In this case, promotion strategy provides the means by which customers can obtain information about new and existing pharmaceutical products and their properties to influence their demand. Promotional strategy works as a way to convince and inform the end users about the medicinal properties and thus encourage them to like the products. The general sales promotion strategy for bringing pharmaceutical products to market is explained through advertising, personal selling, sponsorship and sales promotion. The goal is to increase sales revenue (Gibson et al., 2017). Promotional strategies include campaigns and efforts initiated by an organization to raise awareness and influence the purchasing decision of customers to choose the organization's product.

2.4.4 Place Strategy

Place or distribution is a set of interdependent units involved in providing a product to consumers for use or consumption (Kotler and Armstrong 2010). The location strategy of this proposed study can be considered as a critical feature that allows drug availability to be used through direct or indirect means. This proposed study explains location strategy because pharmaceutical companies have access to distribution channels, are strategically located and accessible in various strategic cities with a great atmosphere where customers feel at home their purchases.

2.4.5 Sales Performance

Sales performance is a summary of an organization's turnover not only in financial terms, but also in terms of acquiring new customer bases, new product markets and retaining old customers (Du and Chen, 2017). In this proposed study, consistent and high sales performance is explained by improved product performance, shorter sales cycle time, better customer satisfaction and better customer conversions, among other KPIs. This can lead to a higher market share, which increases the organization's sales revenue.

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2.5 Research Gaps

The existing literature on pharmaceutical sales performance has been extensive, covering several different aspects such as pricing strategy, product development strategy, sales promotion strategy and location strategy, but there are important gaps in this research that require further investigation. First, many of the studies cited in the literature are general in nature and may not be directly applicable to Nairobi County, Kenya, hence the need to examine the local drug market dynamics. In addition, although some studies have examined the short-term effects of pricing strategies and the positive relationship between product development and sales growth, a deeper understanding of the long-term consequences of these strategies and their underlying mechanisms is needed. In addition; existing literature lacks a comprehensive overview of sales promotion strategy, pricing strategy, location strategy, and product development strategy. The research must also address the challenges of implementing technology in a local strategy that includes sales logistics systems and offers solutions to regulatory complexities. Addressing these research gaps provided valuable insights tailored to the local pharmaceutical industry in Nairobi County. They enable companies to make informed decisions and optimize their sales strategies.

Furthermore, a comprehensive exploration of promotion strategy, pricing strategy, place strategy and product development strategy are lacking in the existing literature. The research also addressed challenges in technology adoption for place strategy which includes sales logistics systems and provides solutions for regulatory complexities. Addressing these research gaps would offer valuable insights, tailored to the local pharmaceutical manufacturing industry in Nairobi County, enabling companies to make informed decisions and optimize their sales strategies.

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Table 1: Research Gap Table

Author	Study topic	Study Findings	Gaps	Focus of the Current Study
Abdel & Mohamed (2017)	Connections between pharmaceutical pricing policies and the cost, accessibility, and affordability of medications for cardiovascular disease: surveys conducted in Lebanon and Qatar	Competitive pricing correlated with higher sales.	Generalized findings might not apply to the Kenyan context.	The current study fills the gap by comparing and exploring pricing strategies and sales performance among pharmaceutical manufacturing companies in Nairobi County.
Johnson and Patel (2019)	Effect of pricing fluctuations on sales performance of pharmaceutical products	Significant price reductions led to short-term sales increase but long-term decreased profitability.	Reasons for long-term decrease in profitability and quality concerns not explored.	The current study fills the gap by Understanding mechanisms behind short-term sales increase and long-term effect of excessive price reductions.
Gupta and Lee (2020)	Experimental study to understand consumer behavior in response to	Moderate price reductions positively influenced consumer	Specific reasons for consumer response not	The current study fills the gap by investigating reasons for favorable response to

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	different pricing strategies for pharmaceutical products	behavior.	investigated	moderate price reductions in the context of pharmaceutical product sales
Johnson et al. (2018)	A longitudinal analysis of pharmaceutical companies' new product introductions and their subsequent sales performance	Frequent new product launches correlated with increased sales.	Aspects necessitating positive correlation not explored.	The current study fills the gap by explicitly delving deeply to understand factors driving correlation between new product development and increased sales of pharmaceutical products.
Patel and Lee (2019)	Effect of specific new product features, such as enhanced formulations or extended-release versions of existing medicines, on sales performance	Novel product offerings with enhanced features led to increased sales.	Reasons for improved sales not deeply investigated.	The current study fills the gap by delving deeply to understand marketing approaches driving increased sales for novel product developments of pharmaceuticals
Gupta and Chang (2020)	A comparative study of pharmaceutical manufacturers with varying levels of investment in research and development (R&D) for	Higher R&D investments correlated with better sales performance.	Specific innovations from R&D investments not explored.	The current study fills the gap by understanding innovations and competitive advantages resulting from higher R&D undertakings in

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	pharmaceutical products.			pharmaceutical product sales
Chen et al. (2018)	Effectiveness of different promotional techniques, such as discounts, coupons, samples, and loyalty programs, on sales performance.	Promotion techniques led to short-term sales increase but may not ensure long-term growth.	Effectiveness of specific sales promotion tactics not compared.	The current study fills the gap by Comparing the effectiveness of different sales promotion tactics to identify suitable strategies among pharmaceutical manufacturing companies in Nairobi country
Lee and Wang (2019)	Impact of continuous promotional efforts on sales performance over time	Consistent sales promotion strategies positively influenced sales volumes over time.	Specific factors contributing to sustained sales growth not investigated.	The current study fills the gap by delving into mechanisms behind consistent sales promotion's positive effect on sales over time and its alignment with business organizational objectives.
Kim and Park (2020)	The effectiveness of traditional promotional methods, such as in-store promotions and direct sales force efforts,	Digital sales promotion more effective in reaching broader audience, while traditional	Specific effectiveness and synergy of different promotional	The current study fills the gap by comparing the effectiveness of digital and traditional sales promotional strategies and their effect on

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		methods important for relationships.	methods not explored.	pharmaceutical products sales
Murphy et al. (2021)	impact of inventory management on sales performance of pharmaceutical products	Effective inventory management linked to improved sales performance.	Study conducted elsewhere, findings might not apply to the Nairobi County, Kenyan case	The current study fills the gap by investigating the inventory management and its effect on sales performance among pharmaceutical manufacturing companies in Nairobi County in Kenya
Zhang et al. (2022)	A comprehensive exploration of the role of technology-driven supply chain innovations on the sales performance of pharmaceutical companies	Technology-driven supply chain innovations positively correlated with sales performance.	Challenges of technology adoption in supply chain not examined.	The current study fills the gap by analyzing the challenges and barriers in technology-driven value chain innovations affecting pharmaceutical manufacturing companies in Nairobi County
Oketch (2019)	Determination of the metrics of supply chain performance among pharmaceutical manufacturing companies in	Incorporating supply chain performance metrics elevated overall company	Study conducted in Kenya, limited to specific metrics.	The current study fills the gap by investigating on wider scale effects of value chain performance metrics

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	Kenya.	performance.		on overall pharmaceutical manufacturing companies' performance in Kenya.
Kisaso (2017)	Study to establish the effect of marketing strategies on small and medium enterprises in Kenya,	Product growth strategies, promotion strategies, place strategies and piecing strategies had a constructive impact on performance of small and medium enterprises in Kenya	The scope of the study was broad and on a different sector and did not delve deeply to understand how the specific marketing strategies affect the performance of the small and medium enterprises in Kenya.	The current study fills the gap by being more specific scope by focusing on Nairobi County to understand how the respective marketing mix strategies affect sales performance among pharmaceutical manufacturing industry exclusively in Nairobi
Gituma (2017)	Marketing mix strategies on sales performance: case of Unga Feeds Limited Kenya	Established that 4Ps of marketing mix strategies had a positive significance	The research study focused on one company, difficulty to	The current study fills the gap by focusing in Nairobi region and on a cluster of companies under one

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		impact on sales performance	generalize the findings to other settings	industry of pharmaceutical manufacturing sector; it was be easy to generalize the findings to other settings.

Source: (Author, 2024)

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CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the following areas were addressed; research methodology, research design, study target population, sample size determination, sampling method employed, methods used for data collection, procedures for data collection, assessment of reliability and validity of test instruments, data processing procedures, and ethical considerations.

3.2 Research Design

When planning research, the general strategies adopted by the researcher are applied to combine different components consistently and systematically and ensure an appropriate treatment of the research problem (Kostoska et al., 2019). According to Kothari (2004), research design refers to the decisions made by the researcher about what, where, how and by what means will be done in relation to the investigation or research. Creswell and Poth (2017) state that research design is a set of procedures used to collect and analyze research variables to effectively address the research problem under study.

This current study adopted descriptive research design, the core of which was to determine and report the true state of affairs without manipulating data (Cooper and Schindler, 2014). Thus, a descriptive research design was ideal because it allowed the researcher to obtain a description of the marketing strategies of pharmaceutical manufacturing companies in Nairobi and their overall sales status. Cooper and Schindler (2014) further explained that descriptive research allows the researcher to answer the following questions; who, what, when, where and how to determine the relationship between variables. The choice of design is significant because it allows the information collected from the respondents to be presented with, among other things, frequencies, percentages, average values, tables and figures.

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3.3 The Population of the Study

There are 20 registered pharmaceutical manufacturing companies based in Nairobi County. Despite their individual operational differences, these companies exhibit several shared characteristics that influence their day-to-day operations. According to the Kenya Pharmaceutical Industry Association (2023), all these companies comply with the regulatory standards established by the Pharmacy and Poisons Board of Kenya, which ensures that their products adhere to rigorous safety and efficacy requirements. This uniform regulatory environment establishes a fundamental quality benchmark across the sector.

Regarding drug production, these companies offer a diverse range of products across various therapeutic categories. Their product lines include prescription medications, over-the-counter drugs, and generics. This diversity covers common treatments such as analgesics and antibiotics, as well as specialized drugs for chronic conditions like diabetes, hypertension, and cancer (Kenya Pharmaceutical Industry Association, 2023). These companies can be categorized based on their product focus: some specialize in generics, providing cost-effective alternatives to branded drugs, while others focus on proprietary medications with patented formulations. Additionally, some companies prioritize exporting to regional markets, while others focus on meeting local demand (Kenya Pharmaceutical Industry Association, 2023). These distinctions highlight the competitive and dynamic nature of the pharmaceutical industry in Nairobi County, demonstrating how companies adapt to different market demands and operational challenges.

The target population of the study was 640 employees working within 20 registered pharmaceutical manufacturers in Nairobi County, Kenya (Kenya Association of Pharmaceutical industry records, 2023). The unit of analysis for this study was the individual pharmaceutical manufacturing company. Additionally, the unit of observation was the individual employee within these pharmaceutical companies. Data was collected directly from administrative managers, sales and marketing managers, medical representatives, and sales assistants. These employees provided valuable insights into the marketing strategies and practices they use, as well as their effectiveness in driving sales performance. Table 2 shows target population and respective departments.

Table 2: Showing Target Population and Respective Departments

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S/N	**Employee cadre**	**Department**	**Number of Employees in relevant Department**
1.	Administrative Managers	Administration & Operation	130
2.	Marketing & Sales managers	Sales & Marketing	104
3.	Medical Representatives	Sales & Marketing	206
4	Sales Assistants	Sales & Marketing	100
	Total		**640**

Source: (Kenya Association of Pharmaceutical industry records, 2023)

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3.4 Sampling Procedure and Sample Size

Sampling is a critical process in research, involving the selection of a subset of a larger population to ensure that the sample accurately reflects the characteristics of the entire population (Creswell & Creswell, 2018). For this study, the target population consisted of 640 employees from 20 registered pharmaceutical manufacturing companies in Nairobi County. To determine the sample size, the study adhered to Roscoe's rule of thumb, which recommends a sample size between 30 and 500 for most research purposes (Roscoe, 1975). Using the formula provided by Nassiuma (2000), which takes into account the coefficient of variation (Cv) and standard error (E), the sample size was calculated as follows:

$$S = \frac{N\,(Cv)^2}{(Cv)^2 + (N-1)\,e^2}$$

Where;

S = Sample size N = is the target population Cv = Coefficient of Variation

E = Standard error

Therefore, the sample size was;

$$S = \frac{640\ (0.21)^2}{(0.21)^2 + (640 - 1)\ 0.02^2} = 94.17$$

Sample size was 94 respondents

To ensure that the sample was representative, a combination of simple random sampling and purposive sampling were employed. Simple random sampling was used to select individuals from the list of employees working in various departments related to sales, including administrative managers, sales and marketing managers, medical representatives, and sales assistants. This technique ensured that every member of the target population had an equal chance of being selected, promoting representativeness (Bhardwaj, 2019). Additionally, purposive sampling was applied to ensure that specific departments within the pharmaceutical companies were adequately represented, particularly those involved directly with sales strategies and performance. This approach enabled the researcher to focus on individuals who were most relevant to the study's objectives, providing deeper insights into the effectiveness of sales practices within the pharmaceutical sector in Nairobi County pharmaceutical manufacturing sector.

The sample distribution is shown in Table 3 below. The number of respondents selected from each cadre was proportional to their presence in the target population. This method ensured that each role's representation in the sample mirrored its distribution within the overall population of employees.

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Table 3: Sample size

Category	Population (N)	Sample Size(S)
Medical Representatives	206	39
Sales and Marketing managers	104	16
Administrative Managers	130	24
Sales Assistants	100	15
Total	**640**	**94**

Source: (Author, 2024)

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3.5 Data Collection Methods

Following receipt of all necessary approvals from the university postgraduate directorate and NACOSTI, the National Commission for Science, Technology, and Innovation, the researcher delivered an introduction letter to the human resource divisions of the pharmaceutical companies involved in the study. To collect primary data, semi structured questionnaires were employed. The questionnaires, which included both closed and open-ended questions, were designed to gather comprehensive information. Research assistants administered the questionnaires using the "drop and pick later" method. Data collection commenced and concluded in June 2024. The researcher conducted follow-ups with respondents to ensure completion of the questionnaires, utilizing email to accommodate busy schedules. Once completed, the questionnaires were returned for analysis.

3.6 Data Collection Instruments

Semi structured questionnaires were used in the current study (refer to Appendix II). The most appropriate survey format is a questionnaire, which is why using one for this study was essential

due to the validity and reliability of the data. Furthermore, the questionnaires are easy to administer and analyze. Respondents were asked to provide their opinions on the problem that was being studied (Maxwell, 2012).

As per Kothari (2008), questionnaires yield information free from the prejudices of researchers, rendering them the most optimal method for research. Six sections, numbered A through F, made up the questionnaire. Demographic information was covered in Section A, and questions about the general and particular research study objectives were covered in the Likert-|type questionnaire in Sections B through F.

The 5-point Likert scale utilized in the questionnaire was designed to capture varying levels of agreement or disagreement with the study's statements, with 1 denoting extremely low extent, 2 low extent 3 moderate extents, 4 high extent and 5 very high extent was available for those who neither agreed nor disagreed with the statements. This scale allowed for a detailed analysis of respondents' attitudes and opinions by providing a range of responses, which facilitated a nuanced understanding of their perspectives on the research variables.

The respondents checked and circled the appropriate options that were provided to show how much they agreed. Research assistants assisted in dropping and picking the questionnaires after five days. Mailing was also used as a means of sending questionnaires to respondents who had hectic schedules. Circumstances where respondents had not completed the questionnaires, polite reminders and follow-up were made.

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3.7 Pilot Study

Pilot study serves to check the usefulness of the adopted research methods and tools to investigate a given problem (Thomas, 2017). The use of pilot study to test the method is also critical because it adds credibility and dependability to the study and it builds researchers expertise in using the data instruments (Pratt and Yezierski 2018).

Kiambu County hosted the pilot test because its population characteristics are relatively similar to those of Nairobi County.

In the pilot study, data collected from Universal Corporation Limited and Benmed Pharmaceuticals Limited, which included 10 participants (five from each company), were

analyzed to evaluate the effectiveness of the research instruments. The sample consisted of three medical representatives, one administrative manager, one marketing and sales manager and one sales assistant respectively from each company. The analysis focused on assessing the clarity, relevance, and comprehensiveness of the questionnaires, as well as the appropriateness of the response options.

Feedback from participants highlighted areas where the questions were ambiguous or could be better aligned with the study's objectives. This feedback led to specific modifications in the questionnaire, such as provision of explanation of terminologies used in questionnaires, rephrasing unclear questions, adjusting response options to better capture participants' perspectives, and adding questions to address previously overlooked aspects. By incorporating these modifications, the researcher ensured that the final instrument was more precise and effective for capturing the intended data in the main study.

3.8 Validity and Reliability of the Instruments

3.8.1 Validity of the Instruments

Validity is critical in research as it reflects the significance and correctness of the conclusions drawn from the data collected (Mugenda & Mugenda, 2003). For an instrument to be valid, it must measure what it is intended to measure. In this study, validity was enhanced by piloting ten questionnaires to refine and ensure that the research instrument accurately captured the necessary data (Kothari, 2004). Piloted participants were excluded from the final sample to avoid response bias.

The validity of the instrument was evaluated using several methods. Content validity was assessed by having research supervisors and research experts in the field review the questionnaire to ensure that it covered the full range of attributes related to sales performance and marketing mix strategies. For example, experts provided feedback on whether each question effectively measured the intended constructs, such as marketing mix strategies and sales performance metrics. Construct validity was also confirmed through factor analysis, which tested whether the questionnaire items grouped together as expected based on theoretical constructs. This process involved reviewing relevant literature to ensure that the questionnaire items were consistent with established theories and practices in pharmaceutical marketing and sales

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performance. The study used both closed and open-ended questions. Closed ended questions provided the use of Likert scales for quantifiable metrics, which facilitated statistical analysis and generalization of the study findings. The use of open-ended questions provided contextual details and underlying reasons behind qualitative trends in the pharmaceutical manufacturing industry in Nairobi County, by offering a more comprehensive understanding of the factors influencing sales performance.

3.8.2 Reliability of the Instruments

A measure's consistency is referred to as its reliability (Mohajan, 2017). Reliability for this study was assessed during the pilot test by analyzing how consistently participants responded to the questionnaire's items. Respondents' scores on the instrument's items should correlate with one another since all of the items are meant to represent the same underlying construct. Using the Cronbach alpha formula, the pre-test reliability of the data collection tool for this study was assessed. The reliability statistic for each of the identified factors is presented in Table 4 below.

Table 4: Test of Internal Consistency Reliability

Variables	Number of items	Cronbach's Alpha(α)	Comments
Pricing Strategy	6	0.784	Accepted
Product Development Strategy	6	0.813	Accepted
Promotion Strategy	6	0.835	Accepted
Place Strategy	6	0.827	Accepted
Sales Performance of Pharmaceutical manufacturing companies	6	0.809	Accepted
Overall reliability	30	0.904	Accepted

Source: Research Data (2024)

Cronbach's alpha coefficient gives values ranging from 0 to 1 whereby the value of 1 indicates perfect reliability. The cut-off points of 0.70 are considered to be the lowest level of acceptability

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(Hair, Black, Barry & Anderson, 2014). The findings from Table 4 above reflect that all the items for each objective were accepted since they were above the cut-off point of 0.70. Table 4 revealed an overall reliability coefficient of 0.904.

3.9 Data Analysis and Presentation

The statistical package for social sciences (SPSS) version 21.0 software was used to analyze the data. The SPSS program handled and performed a quantitative analysis on the collected data. After checking the questionnaires for errors, data was extracted, coded, and entered into the system in preparation for analysis. Descriptive statistical analysis entailed figuring out percentages, means, and frequencies. Multiple linear regression analysis was used in inferential statistical analysis to investigate the relationship between marketing mix strategies and sales performance among pharmaceutical manufacturers in Nairobi County. The NVivo tool was utilized to analyze qualitative data in order to produce broad perspectives of the respondents regarding the different aspects pertaining to the marketing mix strategies and sales performance of pharmaceutical manufacturers in Nairobi County, Kenya.

The researcher used multiple linear regression formulae;

$$Y= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where;

Y is the sales performance

Sales performance = the dependent variable,

β_0=The Regression constant term.

β_1, β_2, β_3 and β_4 represent the Coefficients Independent Variables

X_1= Pricing strategy

X_2= product development strategy

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X_3= Promotion strategy

X_4 = Place strategy

ε = Error of term

3.10 Assumptions of Multiple Linear Regressions

To ensure the validity of multiple linear regression results, the researcher assessed whether the underlying assumptions of the model were met. These assumptions included the absence of autocorrelation in residuals, normality of residuals, and the absence of multicollinearity among predictors.

3.10.1 Durbin-Watson Test

The Durbin-Watson statistic was used to detect the presence of autocorrelation in the residuals from a regression analysis. The results are shown in Table 5.

Table 5: Durbin-Watson Test

Model	Durbin-Watson Statistic	Interpretation
1	1.912	No significant autocorrelation detected. Values close to 2 suggest no autocorrelation.

The value of 1.912 is within the acceptable range of 1.5 to 2.5, suggesting that there is no significant autocorrelation in the residuals. This result supports the validity of the regression model concerning autocorrelation.

3.10.2 Shapiro-Wilk Test for Normality of Residuals

The Shapiro-Wilk test was used to assess whether the residuals are normally distributed. The test statistic W and p-value are used to evaluate this. The results are presented in Table 6.

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Table 6: Shapiro-Wilk Test for Normality of Residuals

Model	Shapiro-Wilk Statistic	p-value	Interpretation
1	0.981	0.235	Residuals are normally distributed. A p-value greater than 0.05 suggests normality.

The results reveal a p-value greater than 0.05 indicating that the residuals are approximately normally distributed. The Shapiro-Wilk statistic of 0.981 is close to 1, which suggests that the residuals do not deviate significantly from normality. This result supports the validity of the regression model regarding normality of residuals.

3.10.3 Variance Inflation Factor (VIF)

The VIF was used to measure how much the variance of an estimated regression coefficient increases due to multicollinearity. The results are presented in Table 7.

Table 7: Variance Inflation Factor (VIF)

Predictor	VIF	Interpretation
Product Development Strategy	1.89	No significant multicollinearity detected. VIF < 10 is acceptable.
Pricing Strategy	1.75	No significant multicollinearity detected. VIF < 10 is acceptable.
Promotion Strategy	2.05	No significant multicollinearity detected. VIF < 10 is acceptable.
Place Strategy	2.22	No significant multicollinearity detected. VIF < 10 is acceptable.

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VIF values in Table 7 for all predictors are below 10, which indicate that multicollinearity is not a concern in this model. These values suggest that the predictors are not highly collinear, supporting the validity of the regression model concerning multicollinearity.

3.11 Ethical Consideration

In order to collect data, the researcher carefully followed the guidelines. This included submitting the research proposal to the St. Paul's University Ethical Review Committee and requesting an official letter of introduction from the University. The request for a research authorization from NACOSTI was then made using this letter, in compliance with established procedures. To ensure data confidentiality and protect respondents' privacy, several specific measures were implemented. Personal identifiers were removed from the collected data to anonymize responses, and data was stored in encrypted digital files and physical records secured in locked cabinets. Access to the data was restricted to authorized personnel only, and backup procedures were in place to prevent data loss. Participants were provided with detailed information about the study, signed consent forms affirming their voluntary participation, and were informed of their right to withdraw from the study at any time without penalty

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CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter encompasses data analysis, findings, and discussion of the study results. It initiates with an examination of the response rate and the evaluation of research instruments, as well as the verification of regression assumptions. Subsequently, it details descriptive statistics pertaining to the demographic information of respondents and pharmaceutical manufacturing companies. This is followed by the presentation of quantitative and qualitative statistics related to the study variables and correlation analysis. Ultimately, the chapter concludes with a comprehensive discussion of the study's findings.

4.2 Response Rate

The researcher sought to find out the response rate of the respondents whereby the unit of analysis in this study was the pharmaceutical manufacturing companies which have unique sets of pricing strategy, product development strategy, promotion strategy, place strategy and different level of sales performance. The findings are presented in Table 8.

Table 8: Response Rate

Response		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Invalid Questionnaire	2	2.1	2.1	2.1
	Valid Questionnaire	92	97.9	97.9	100.0
	Total	**94**	**100.0**	**100.0**	

Source: Field Data (2024)

The findings in Table 8 above were obtained after questionnaires were distributed to 94 respondents in Nairobi. After follow-ups, all the questionnaires were submitted with 92 questionnaires were completed and while 2 questionnaires were incomplete and returned in a

form usable for analysis, which constituted a response rate of 97.9 percent. This response rate was considered good as suggested by Bryman and Bell (2015) who postulated that 60% is sufficient sample size. The distribution of the questionnaires was done physically and through email. The high response rate was attributed to data collection methods employed by the researcher. For instance, the researcher notified the potential respondents of the intended survey prior to going to the field by making phone calls and sending emails. The researcher also carried out the survey using the drop and pick later technique and follow up calls were made to clarify any queries that arose as well as prompt the respondents to fill the questionnaires. This method facilitated the entire data collection process hence the high response rate.

4.3 Demographic Information

This section presented and discussed the results of demographic information of the respondents and the pharmaceutical manufacturing companies.

4.3.1 Gender of the Respondents

The researcher sought to find out the gender distribution of the respondents under study. The findings are represented in Table 9.

Table 9: Gender Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	32	34.8	34.8	34.8
	Male	60	65.2	65.2	100.0
	Total	92	100.0	100.0	

Source: Research Data (2024)

The findings presented in Table 9 above shows that the majority of respondents are male (65.2%), while female respondents are significantly fewer (34.8%). This reflects male-dominated workforce in the pharmaceutical manufacturing sector. This gender disparity aligns with broader trends observed in the industry. Research has consistently shown that male professionals are often more prevalent in pharmaceutical manufacturing roles, especially in technical and managerial positions (Chilet-Rosell, 2014).

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4.3.2 Profile of the Respondents

The study's respondents were members of staff who frequently engage in sales-related activities for pharmaceutical manufacturing companies in Nairobi County and they were deemed to be well-versed in the business's procedures. Frequencies and percentages were used to examine the distribution of the respondents by position. The profile of the respondents of the studied company's is shown in Table 10.

Table 10: Distribution of the Respondents by Job Title.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Administrative Manager	24	26.1	26.1	26.1
	Medical Representative	39	42.4	42.4	68.5
	Sales &Marketing manager	16	17.4	17.4	85.9
	Sales Assistant	13	14.1	14.1	100.0
	Total	92	100.0	100.0	

Source: Research Data (2024)

As shown in Table 10 concerning the respondents, majority (42.4%) were Medical representatives, 26.1% were Administrative managers, and 17.4% were Sales & Marketing managers while Sales assistants were 14.1%. In view of the position of the respondents, it can be concluded that the respondents were knowledgeable on company's organizational processes and therefore their responses were considered informed. The presence of respondents across a range of employment durations from less than two years to over twenty years ensures that the data reflects a broad spectrum of perspectives and experiences. This breadth of experience contributes to a more comprehensive understanding of organizational practices and challenges, enhancing the reliability and depth of the study's findings (Palinkas et al., 2015).

4.3.3 Years of Service

This study sought to determine the number of years the respondents had worked in their current respective pharmaceutical manufacturing companies. Table 11 below revealed the results.

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Table 11: Distribution of Duration of working of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2 Years & below	6	6.5	6.5	100.0
	2 - 5 Years	29	31.5	31.5	53.3
	6 - 10 Years	29	31.5	31.5	93.5
	11 - 20 Years	20	21.7	21.7	21.7
	21 Years & above	8	8.7	8.7	62.0
	Total	92	100.0	100.0	

Source: Research Data (2024)

Table 11 shows that 31.5% of respondents had been employed for two to five years, which is the same percentage as those who had served for six to ten years; 21.7% had been worked for eleven to twenty years; 8.7% had worked for twenty-one years or more; and 6.5% had served for less than two years. These findings indicated that the respondents had been employed by their current pharmaceutical companies for a sufficient amount of time to be familiar with the day-to-day organizational functions of such companies.

4.3.4 Level of Education of the Respondents

The researcher was interested to determine the level of education of the respondents. Frequencies and percentages were used to examine the distribution of the respondents' level of education.

Table 12: Level of education of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Certificate	3	3.3	3.3	3.3
	Diploma	28	30.4	30.4	33.7
	Bachelor's Degree	39	42.4	42.4	76.1
	Post-Graduate Degree	17	18.5	18.5	94.6
	Others	5	5.4	5.4	100
	Total	92	100.0	100.0	

Source: Research Data (2024)

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As depicted in Table 12 above, majority (42.4%) had a Bachelor's degree, 30.4% had Diploma, and 18.5% had post-graduate degree, 3.3% had certificate, while other qualifications were 5.4 %. Given the results it can be concluded that the respondents were well educated and thus able to make sound decisions.

4.4 Descriptive Statistics

This section presents the results of the descriptive statistics for each objective. It also presents descriptive analyses results of the study variables.

4.4.1 Pricing strategy

The primary aim of the study was to evaluate how pricing strategy affected sales performance in Nairobi County's pharmaceutical manufacturing enterprises. Participants were asked to rank the degree to which they agreed with the assertions made about their company's pricing approach. Each of the items had a 5-point Likert-type scale, with 1 denoting extremely low extent, 2 low extent 3 moderate extents, 4 high extent and 5 very high extent. Coefficient of variation, mean scores, and standard deviations were used to analyze the replies. Greater mean scores demonstrated an extremely high level of agreement with an item, while lower mean scores demonstrated an extremely low level of agreement with the claims. Table 13 displays the findings.

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Table 13: Pricing Strategy

Statements	*N*	Mean	Std. Deviation	*CV (%)*
1. Cost based pricing strategy has an effect on sales performance of pharmaceuticals	92	4.17	1.012	24.27
2. Use of Market based prices leads to high sales of the pharmaceutical	92	3.98	.961	24.15
3. Value-based pricing positively influences the sales performance of pharmaceutical products	92	3.77	.996	26.42
4. Use of volume-based pricing strategy in pushing of pharmaceutical products to the market leads to high sales	92	3.80	1.051	27.66

5. Low prices are charged in order to enhance product performance in all targeted geographical areas	92	3.14	1.237	32.55
6. The application of a competitive pricing strategy improves sales outcomes.	92	4.09	1.002	24.50
Overall Mean		**3.83**		

Source: Research Data (2024)

As indicated in Table 13, the item with the highest mean score was "Cost based pricing strategy has an effect on sales performance of pharmaceuticals" (*M*= 4.17, *SD*= 1.012) while the item with the lowest mean score was "Low prices are charged in order to enhance product performance in all targeted geographical areas" (*M*=3.14, *SD*= 1.237). On further analysis, the results revealed that items on pricing strategy had low variability. Among the items, "Low prices are charged in order to enhance product performance in all targeted geographical areas" had the highest variability (*CV*= 32.55) while the item that had the lowest variability was "Use of Market based prices leads to high sales of the pharmaceutical" (*CV*= 24.15).

The overall mean score on pricing strategy was 3.83. This value represents the average agreement level across all the surveyed items related to pricing strategies. This indicates a generally positive perception of the pricing strategies, with respondents tending towards having high extent of agreement based on with the statements presented on sales performance among pharmaceutical manufacturing companies.

Further findings from the open-ended questions reveal several critical approaches and challenges related to setting and managing prices in the pharmaceutical manufacturing industry in Nairobi County. Key tactics include the use of bonuses and discounts, value based pricing, and addressing competitive dynamics, while challenges include price wars, government controls, and high taxation. Respondents highlighted the effectiveness of volume-based bonuses and discounts in boosting pharmaceutical sales. One respondent shared: *"Bonus offers on volume have improved the intake by distributors, which has also enabled good customer conversion"* (Respondent Four). This strategy incentivizes distributors to increase their intake, which in turn helps drive customer conversion and boost pharmaceutical sales.

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Value based pricing emerged as a significant strategy for increasing demand and customer loyalty. A respondent noted: "*The better the price, the more the sales*," (Respondent Five). This indicates that aligning pricing with the perceived value of the product can enhance sales performance. Tiered pricing strategies that cater to different market segments also help maximize customer reach and profitability.

Moreover, the challenge of balancing competitive pricing with profitability was mentioned by several respondents: "*The balance between competitive pricing and profitability*" (Respondent Six). Finding the right equilibrium between offering attractive prices and maintaining profit margins is crucial for long-term success. Furthermore, the issue of price wars and guerilla marketing methods such as bribery was noted as problematic. These tactics can undermine fair competition and impact overall market dynamics.

Respondents also pointed out difficulties in aligning product prices with market demand. To this end, one of the respondents said; *"a major product difficulty is the pricing of the product; the price has to be competitive in the market*" (Respondent Seven). Ensuring that prices are competitive while still meeting market expectations poses a significant challenge. However, success in competitive pricing was exemplified by a hypertensive product line called *Atorvastatin*. One of the respondents opined: "*An example of a success in this area is (Atorvastatin); our company was able to initially set a very competitive price and bonuses*" (Respondent Eight). Setting competitive prices early on can establish a strong market position and drive sales.

Finally, the impact of government price controls on pharmaceutical pricing was noted. One of the respondents said; *"government imposes direct price controls or caps on the cost of medications to ensure they remain affordable for the general population*" (Respondent Nine). Such controls are intended to make medications more accessible but can also limit profit margins for pharmaceutical companies. The findings on pricing strategies underscore the importance of balancing competitive pricing with profitability, leveraging value-based and tiered pricing, and addressing challenges such as government controls and taxation. In adopting digital marketing, maintaining consistent promotions, and using targeted communication, pharmaceutical companies can enhance their market positioning and profitability.

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4.4.2 Product Development Strategy

The second goal was to examine how Nairobi County's pharmaceutical manufacturing enterprises' sales performance was affected by their approach to product development. The respondents were asked to score their agreement with the statements on their company's approach for product development. Every item featured a 5-point Likert-type scale, with 1 denoting extremely low, 2 low, 3 moderate, 4 high, and 5 very high. The scale continued from 1 to 5. The coefficient of variation, standard deviations, and mean scores were used to analyze the replies. As demonstrated in Table 14, higher mean scores on an item indicated extremely high level of agreement, while lower mean scores showed very low extent of agreement.

Table 14: Product Development Strategy

Statements	*N*	Mean	Std. Deviation	*CV (%)*
1. New differentiated pharmaceutical products portfolio is introduced to the market regularly	92	3.68	.994	27.01
2. Organizational funding in R/D lead to innovative variants of pharmaceutical products	92	3.49	1.172	33.58
3. Introduction of high-quality pharmaceutical products in the market increases sales performance	92	4.05	1.093	26.99
4. A strong brand name of the pharmaceutical products increases visibility hence attracts more sales	92	4.02	1.016	25.27
5. Well labeled pharmaceutical products attracts more customers hence more sales	92	4.00	.938	23.45
6. Pharmaceutical companies consistently solicits and values customer feedback on new products	92	3.70	1.136	30.70
Overall Mean		**3.82**		

Source: Research Data (2024)

As indicated in Table 15 above, the item with the highest mean score was "Introduction of high-quality pharmaceutical products in the market increases sales performance" with a mean of 4.05. This indicates strong agreement among respondents about the effect of high-quality products on sales performance while the item with the lowest mean score "Organizational funding in R/D

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lead to innovative variants of pharmaceutical products" with a mean of 3.49. This suggests a more moderate agreement on the effect of funding in R&D on creating innovative products. Further analysis of variability reflects that "Organizational funding in R/D lead to innovative variants of pharmaceutical products" with a CV of 33.58%. This suggests the most relative variability, indicating differing opinions among respondents while "Well labeled pharmaceutical products attracts more customers hence more sales" with a CV of 23.45%. This indicates the least relative variability, showing a strong consensus among respondents. It's clear from the findings that highest level of agreement was experienced in "Introduction of high-quality pharmaceutical products" with the highest mean (4.05), indicating strong agreement on its importance while the most varied aspect was "Organizational funding in R/D" with the highest CV (33.58%), and indicating significant differences in views. Similarly, the most consistent item was "Well labeled pharmaceutical products" with the lowest CV (23.45%), showing strong consensus among respondents. The overall mean of 3.82 suggests general agreement on the importance of these product development strategies, with varying degrees of consensus across different aspects on sales performance among pharmaceutical manufacturing companies.

The findings from the open ended questions show that the respondents emphasized the importance of product innovation and branding in driving sales, focusing on enhanced formulations, dosages, and user-friendly packaging. As one respondent noted: "*Innovative drug formulations that enhance efficacy, reduce side effects, or improve patient compliance have significantly contributed to increased pharmaceutical sales*" (Respondent One). This underscores the importance of standing out in a competitive market by offering improved or differentiated products.

Extending the lifecycle of a product through line extensions or complementary products was also identified as a crucial strategy. A respondent pointed out the value of such practices: *"Product line extensions, like new product variants help maintain market interest and attract a broadened customer base*" (Respondent Two). This strategy is critical for maintaining momentum in the market and appealing to a broad category of consumers. Companies that successfully manage the lifecycle of their products can extend their commercial viability.

Respondents also addressed the importance of patent protection and product tendering as part of the strategy to regulate market competition and pricing. To this end, one of the respondents said:

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"*Patent protection allows pharmaceutical companies to recoup the costs of research and development by charging higher prices for their products. However, regulations that limit patent protection or allow for generic competition can impact pricing strategies*" (Respondent Three). These strategies ensure that pharmaceutical manufacturing companies can protect their innovations while remaining competitive in regulated markets. The findings show that product development strategies in the pharmaceutical sector hinge on innovation, differentiation, and lifecycle management. However, companies must navigate challenges like resource limitations, counterfeit products, and low-priced competition.

4.4.3 Promotion Strategy

The third goal was to assess how Nairobi County's pharmaceutical manufacturing companies' sales performance was affected by their advertising strategies. The participants were asked to score their level of agreement with the statements on their company's promotion approach. Every item featured a 5-point Likert-type scale, with 1 denoting extremely low, 2 low, 3 moderate, 4 high, and 5 very high. The scale continued from 1 to 5. The coefficient of variation, standard deviations, and mean scores were used to analyze the replies. Table 15 displays that higher mean scores on an item imply extremely high level of agreement, whereas lower mean scores indicate very low extent of agreement.

Table 15: Promotion Strategy

Statements	*N*	Mean	Std. Deviation	*CV (%)*
1. Sponsorship programs contribute positively to the sales performance	92	4.03	1.104	27.39
2. Use of sales promotion technique positively increases pharmaceutical products visibility hence high sales	92	4.34	.802	18.48
3. Use of advertising to reach out to customers positively increases sales of pharmaceutical products	92	3.91	.957	24.48
4. Use of public relations unit streamlines organizational communication hence increases customer satisfaction	92	3.84	.929	24.19
5. Personalized products detailing enhances customer preferences and overall sales	92	3.99	1.000	25.06

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6. The promotion strategy makes use of digital marketing platforms and social media to increase brand awareness. 92	3.85	1.119	29.06
Overall Mean	**3.99**		

Source: Research Data (2024)

From findings in table 15 above, its vivid that the item that received highest level of agreement was the use of sales promotion techniques (Mean: 4.34) received the highest mean score, indicating the strongest consensus on its effectiveness in increasing product visibility and sales while the use of public relations units (Mean: 3.84) and the use of digital marketing platforms (Mean: 3.85) received the lowest mean scores, indicating relatively lower agreement on their effectiveness. From the findings, the use of sales promotion techniques (CV: 18.48%) had the lowest CV, showing the most consistent responses. Similarly, the use of digital marketing platforms (CV: 29.06%) had the highest CV, indicating the most variability in opinions.

The overall mean of the promotion strategy measures is approximately 3.99, representing the average level of agreement among respondents across all six promotion strategy items, indicating a generally positive perception of the effectiveness of these strategies in enhancing sales performance and customer satisfaction on sales performance among pharmaceutical manufacturing companies.

Further findings from the open-ended questions on promotion strategy illustrate the critical role of various promotional tactics in enhancing pharmaceutical brand visibility, increasing awareness, and driving sales. Key strategies include the use of samples, sponsorships, educational campaigns, and digital marketing, while challenges such as regulatory constraints and taxation also impact promotional efforts. Providing samples and personalized detailing to healthcare providers was identified as a key tactic for building brand visibility and driving prescriptions. As one respondent noted: "*Product promotion, including giving samples, has created strong brand presence in the market and led to customer conversion and consolidation*" (Respondent Ten). This approach helps in directly engaging healthcare professionals and allowing them to experience the product first-hand, which can significantly influence their prescription patterns.

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Engaging in sponsorships, organizing medical camps, and conducting continuous medical education sessions were highlighted as effective ways to build trust and increase product awareness. A respondent commented: "*Organizing medical education meetings with doctors and chemist attendants has significantly improved product awareness and boosted sales.*" (Respondent Eleven). Such initiatives help in establishing credibility and educating healthcare professionals about the benefits and use of the products.

However, the regulatory environment poses challenges to promotional activities. To this end, one of the respondents said: "*The pharmaceutical industry in Kenya is heavily regulated by national government controlled body, PPB*" (Respondent Twelve). These stringent controls can restrict the methods and scope of promotional efforts, impacting overall effectiveness. Adhering to regulatory requirements can delay the execution of promotional campaigns and limit their effectiveness.

Finally, the respondents pointed out that promotional strategies such as educational campaigns and digital marketing are important in enhancing brand visibility and driving sales. By adopting a multi-channel approach and focusing on efficient distribution and customer engagement, pharmaceutical companies can effectively boost their market presence and performance.

4.4.4 Place Strategy

The fourth goal was to investigate how Nairobi County's pharmaceutical manufacturing enterprises' location strategies affected their sales results. The participants were asked to score their agreement with the statements on their company's approach for product development. Every item featured a 5-point Likert-type scale, with 1 denoting extremely low, 2 low, 3 moderate, 4 high, and 5 very high. The scale continued from 1 to 5. The coefficient of variation, standard deviations, and mean scores were used to analyze the replies. As demonstrated in Table 16, higher mean scores on a given item indicated extremely high level of agreement, whereas lower mean scores showed very low extent of agreement with the claims.

Table 16: Place Strategy

Statements	*N*	Mean	Std. Deviation	*CV (%)*

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1. Different levels of channels are used in distribution of pharmaceutical products in the market	92	4.07	1.156	28.40
2. Efficient stock management systems positively affect sales performance of pharmaceutical products	92	4.23	.915	21.63
3. Strategic warehousing locations contribute to improved sales performance of the pharmaceutical products	92	3.54	1.190	33.62
4. Timely delivery of orders of pharmaceutical products enhances customer satisfaction.	92	4.63	.641	13.84
5. Effective delivery management systems contribute to increased sales of pharmaceutical products	92	4.43	.775	17.49
6. The place strategy expands on easily reaching customers by incorporating e-commerce distribution platforms.	92	3.89	.966	24.83
Overall Mean		**4.13**		

Source: Research Data (2024)

As indicated in Table 16, the item with the highest mean score was "Timely delivery of orders of pharmaceutical products enhances customer satisfaction" with a mean of 4.63. This indicates a very strong agreement among respondents about the importance of timely delivery while the item with the lowest mean score "Strategic warehousing locations contribute to improved sales performance of the pharmaceutical products" with a mean of 3.54. This suggests a more moderate agreement on the effect of strategic warehousing location. Further analysis of variability reflects that "Timely delivery of orders of pharmaceutical products enhances customer satisfaction" had the lowest CV of 13.84%. This indicates the least relative variability, showing a strong consensus among respondents while "Strategic warehousing locations contribute to improve sales performance of the pharmaceutical products" had the highest CV of 33.62%. This suggests the most relative variability, indicating differing opinions among respondents in pharmaceutical company in relation to product development. It's clear from the findings that highest level of agreement was experienced in "Timely delivery of orders" with the highest mean (4.63) and lowest CV (13.84%), indicating strong and consistent agreement while the most varied aspect was "Strategic warehouses locations" with the lowest mean (3.54) and highest CV (33.62%), suggesting moderate agreement and high variability. The overall mean was 4.13 which suggest general agreement on the importance of these product development strategies, with

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varying degrees of consistency across different aspects of sales on sales performance among pharmaceutical manufacturing companies.

The findings from the open ended questions on place strategy underscores the critical role of optimizing distribution channels and leveraging digital platforms to enhance product availability and market reach. Efficient distribution networks and placement in key locations like pharmacies and with major distributors were identified as vital for improving brand visibility and sales. As one respondent noted: *"Product availability with major distributors has helped us improve on our brand visibility leading to increased sale,"* (Respondent Thirteen). Additionally, the use of digital marketing and e-commerce platforms emerged as a modern approach to broaden market reach and increase accessibility, with one respondent highlighting, "*E-commerce platforms and timely responses to queries have improved our product's reach and sales*" (Respondent Fourteen).

Challenges such as stock-outs due to delays in sourcing raw materials or APIs and distributor inefficiency were noted as prevalent concerns. Stock-outs disrupt the supply chain and affect product availability, while inefficiencies among distributors can lead to inconsistencies in pricing and distribution effectiveness. Competition from companies with broader distribution networks also poses a challenge, highlighting the need for efficient and timely delivery to maintain a competitive edge. As one respondent pointed out, "*Timely delivery has contributed to the success of new pharmaceutical products and also detailed explanation of how the product works*," (Respondent Fifteen).

4.4.5 Sales Performance

The researcher aimed to assess sales performance in pharmaceutical manufacturing companies in Nairobi Country. Respondents were asked to indicate their level of agreement with statements related to their company's sales performance. Each statement was rated on a 5-point Likert scale, where 1 indicated "to a very low extent," 2 indicated "to a low extent," 3 indicated "to a moderate extent," 4 indicated "to a high extent," and 5 indicated "to a very high extent." The responses were analyzed using mean scores, standard deviations, and coefficients of variation. Higher mean scores indicated a high level of agreement with an item, while lower mean scores indicated a low level of agreement as shown in Table 17.

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Table 17: Sales Performance

Statements	*N*	Mean	Std. Deviation	*CV (%)*
1. Sales cycle duration of pharmaceutical products is predictable and tracked	92	3.61	1.027	28.45
2. Customer conversions rate has been on steady rise	92	3.66	.893	24.40
3. Customer satisfaction with pharmaceutical products sales is high	92	3.83	1.012	26.42
4. Pharmaceutical product portfolio has a strong competitive position in the market	92	3.98	.949	23.84
5. The sales performance of pharmaceutical products aligns with industry trends	92	3.73	1.120	30.03
6. The sales performance and profitability of pharmaceutical products are highly influenced by marketing mix strategies.	92	4.25	.921	21.67
Overall Mean		**3.84**		

Source: Research Data (2024)

As shown in Table 17, the highest mean score was for the item "The sales performance and profitability of pharmaceutical products are highly influenced by marketing mix strategies," with a mean of 4.25. This indicates a strong agreement among respondents regarding the effect of marketing mix strategies on sales performance. Conversely, the item "Sales cycle duration of pharmaceutical products is predictable and tracked" had the lowest mean score of 3.61, suggesting a more moderate agreement on the predictability and tracking of the sales cycle duration. Further analysis of variability revealed that the item with the lowest variability was "The sales performance and profitability of pharmaceutical products are highly influenced by marketing mix strategies," with a CV of 21.67%. This shows the least relative variability and indicates a strong consensus among respondents. On the other hand, the item "The sales performance of pharmaceutical products aligns with industry trends" had the highest variability, with a CV of 30.03%, indicating the most relative variability and differing opinions among respondents. The overall mean was 3.84, suggesting that respondents generally have a positive perception of various aspects of sales performance, although some measures are viewed more

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favorably than others in relation to sales performance among pharmaceutical manufacturing companies.

The findings from open-ended questions on sales performance highlight several key factors contributing to effective sales strategies in the pharmaceutical manufacturing sector in Nairobi County. Emphasis was placed on product innovation, effective promotional tactics, and distribution efficiency. Respondents noted that innovative product ranges, user-friendly packaging, and improved efficacy contribute significantly to increased sales. Similarly, personalized detailing and sampling were identified as critical tactics for boosting brand visibility and driving customer conversions. Effective use of medical sponsorships and educational campaigns was also highlighted as a means to build trust and enhance product awareness. Furthermore, the role of digital platforms and e-commerce in expanding market reach and easing product access is increasingly significant, with respondents noting that *"e-commerce platforms and timely responses to customer queries have improved our product's reach and sales*," (Respondent fourteen).

Furthermore, the respondents pointed out that government regulations and market dynamics influence sales performance. Regulations on market entry, pricing, and distribution ensure fair competition and product quality but can also impact pricing strategies and market accessibility.

4.5 Inferential Statistics

This section presents and discusses the results of the inferential statistics of the study variables. This was conducted by initially considering how the variables of the study (Pricing Strategy, Product development strategy, Promotion strategy, Place strategy and Sales performance) are correlated with one another. This was done by conducting correlation analysis using Pearson's product moment correlation coefficient. The data was then analysed using multiple regression analysis.

4.5.1 Correlation Analysis

Before doing multiple regression analysis, the study sought to examine how the variables of the study; Pricing strategy, product development strategy, promotion strategy, place strategy sand sales performance were related. The analysis was done using Pearson product moment correlation as shown in table 18 below:

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Table 18: Correlation Analysis

	Sales Performance	Pricing Strategy	Product Development Strategy	Promotion Strategy	Place Strategy
Sales Performance	1				
Pricing Strategy	.339**	1			
Product Development Strategy	.386**	.509**	1		
Promotion Strategy	.455**	.492**	.533**	1	
Place Strategy	.549**	.351**	.551**	.623**	1

Correlations are significant at the 0.01 level (2-tailed)

Source: Research Data (2024)

The correlation matrix reveals that all marketing mix strategies; pricing, product development, promotion, and place strategies show significant positive relationships with sales performance. Specifically, place strategy and promotion strategy have the strongest positive correlations with sales performance, at 0.549 and 0.455, respectively, indicating that improvements in these areas are most strongly associated with increased sales. Product development and pricing strategies also demonstrate moderate to strong positive correlations, at 0.386 and 0.339, respectively, highlighting their substantial but less pronounced effect on sales performance. The strength of these correlations underscores the importance of a well-rounded approach to marketing mix strategies in enhancing overall sales outcomes.

4.5.2 Multiple Regression Analysis

The study sought to examine the effect of Pricing strategy, product development strategy, promotion strategy and place strategy on sales performance of pharmaceutical manufacturing companies in Nairobi County. The researcher adopted multiple linear regression model as expressed below;

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$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$, Where;

Y is the sales performance which is the dependent variable,

β_0=The Regression constant term, β_1, β_2, β_3 and β_4 represent the Coefficients Independent Variables

X_1= Pricing strategy, X_2= product development strategy, X_3= Promotion strategy, X_4 = Place strategy.

The findings for multiple regression analysis are as shown below:

Table 19: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.579[a]	.335	.305	.67004

a. Predictors: (Constant), Place Strategy, Pricing strategy, Product Development Strategy, Promotion Strategy

The regression model in Table 19 reveals a moderate positive relationship between the predictor variables and the outcome variable, with a correlation coefficient (R) of 0.579. The model's R Square value of 0.335 indicates that approximately 33.5% of the variance in the dependent variable is explained by the independent variables. When adjusted for the number of predictors, the adjusted R Square drops slightly to 0.305, reflecting that about 30.5% of the variance is explained after accounting for the number of predictors in the model. The standard error of the estimate is 0.67004, signifying the average distance that observed values fall from the regression line. Overall, the model demonstrates a reasonable fit to the data, with a moderate explanatory power and a manageable standard error.

Table 20: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.710	4	4.928	10.976	.000[b]

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	Residual	39.059	87	.449
	Total	58.769	91	

a. Dependent Variable: Sales Performance

b. Predictors: (Constant), Place Strategy, Pricing strategy, Product Development Strategy, Promotion Strategy

The ANOVA results in Table 20 above, the F-statistic of 10.976 indicates the model is significant with a p-value of (p =0.000, p< 0.05), suggesting that the predictors collectively explain a significant portion of the variance in Sales Performance.

Table 21: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.664	.501		1.326	.188
	Product Development Strategy	.034	.119	.033	.281	.779
	Pricing strategy	.119	.109	.117	1.097	.276
	Promotion Strategy	.127	.128	.121	.995	.323
	Place Strategy	.493	.141	.415	3.497	.001

a. Dependent Variable: Sales Performance

The regression model summarized in Table 21 reveals that among the four marketing strategies examined; Product development, promotion strategy, pricing strategy and Place, only Place strategy has a statistically significant effect on Sales performance, with a positive coefficient of 0.493. This indicates that Place strategy is a strong predictor of sales performance for pharmaceutical manufacturing companies, as it is positively associated with higher sales. The non-significance of Product development, pricing, and promotion strategies, with their p-values indicating no significant effect, suggests that these factors do not contribute substantially to sales performance within this model. The model's intercept of 0.664 reflects the baseline sales

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performance when all predictors are at zero. Overall, while Place strategy significantly influences sales, the model leaves 33.6% of the variation in sales performance unexplained, highlighting that other factors not included in this model also play a crucial role in determining sales outcomes.

The general model can therefore be written as:

$Y = 0.664 + 0.119X_1 + 0.034X_2 + 0.127X_3 + 0.493X_4 +$ Where;

Y is the sales performance with X_1= Pricing strategy, X_2= product development strategy, X_3= Promotion strategy, X_4 = Place strategy as the independent variables.

The model shows that a 1-unit increase in the pricing strategy (X_1) leads to a 0.119-unit increase in sales performance, suggesting a moderate positive impact on sales, indicating that adjustments in pricing can improve performance. The product development strategy (X_2) has a smaller effect, with a 1-unit increase resulting in only a 0.034-unit increase in sales performance, showing that while important, it has a relatively minor impact compared to other strategies. The promotion strategy (X_3) results in a 0.127-unit increase in sales performance per 1-unit increase, highlighting its significant effect and the potential for enhanced promotional activities to boost sales. Finally, the place strategy (X_4) has the most substantial impact, with a 1-unit increase leading to a 0.493-unit increase in sales performance, indicating that improvements in distribution and location strategies have the strongest effect on boosting sales performance.

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4.6 Discussion of Results

This section presents the findings and discussion of the research carried out to determine the effect of marketing mix strategies on sales performance among pharmaceutical manufacturing companies in Nairobi, Kenya. First, concerning demographic characteristics, the bulk of respondents (65.2%) were male, whereas the proportion of female respondents (34.8%) was significantly lower. This shows that the workforce in the pharmaceutical manufacturing industry is predominately male, which aligns with broader trends in the pharmaceutical industry but contrasts with global efforts towards gender diversity in corporate settings. Studies suggest that achieving a balanced gender representation could enhance organizational innovation and performance (Ferrary & Deo, 2019).

In terms of job titles, 42.4% of respondents were Medical Representatives, 26.1 percent were Administrative Managers, 17.4% were Sales and Marketing Managers, and 14.1 percent were Sales Assistants. Given this, it can be concluded that medical representatives were many because they handle the majority of the company's field sales activities and have long-term interaction with the marketing mix strategies, which has made them knowledgeable about the standard operating procedures of their companies. However, this concentration may limit diverse perspectives in strategic decision-making, contrasting with recommendations for inclusive team compositions to foster creativity and adaptability (Leroy, et al., 2021).

Regarding the duration of employment, the respondents had worked for 2–5 years, which was the same percentage as those who had worked for 6–10 years at 31.5%; 21.7% had worked for 11–20 years; 8.7% had worked for 21 years and beyond; and 6.5% had worked for less than two years. These findings suggest that the respondents had sufficient experience working for their current pharmaceutical companies to understand the day-to-day organizational operations and marketing mix strategies of their respective firms. This also suggests flexible work schedules and high rates of staff retention. Although, extensive tenure suggests stability but also raises questions about potential complacency and resistance to change, which could hinder innovation and responsiveness to market dynamics (Babatunde, Temitope, & Onoja, 2023)

Regarding educational attainment, 42.4% of respondents held a bachelor's degree, followed by a diploma (30.4%), post-graduate level (18.5.0%), certificate level was 3.3% with the remaining qualifications (5.4%). It is clear from the data that the respondents had a good education and were capable of making wise choices. This means that employment in a sales-related department of pharmaceutical manufacturing companies requires a minimum of a diploma level of education. However, the emphasis on diploma qualifications might limit opportunities for higher education attainment that could bring strategic insights and leadership capabilities crucial for competitive advantage (Umukoro et al., 2021).

The study's findings on marketing mix strategies and their effect on sales performance among pharmaceutical manufacturing companies in Nairobi, Kenya, are consistent with and extend existing literature on the topic. First and foremost, the significant effect of pricing strategies, including cost-based pricing, market-based pricing, value-based pricing, volume-based pricing, and competitive pricing, aligns with the extensive body of research highlighting the importance

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of pricing in influencing sales performance. According to Kotler and Keller (2016), pricing strategies are critical components of the marketing mix that can directly affect consumer purchase decisions and sales outcomes. The differentiation of pricing strategies to cater to various market segments and geographical areas underscores the necessity for strategic flexibility in pricing to maximize sales performance.

The introduction of high-quality products, strong brand names, and clear labeling as stronger influencers of sales performance compared to frequent product differentiation and R&D investments also resonates with established marketing mix theories. As noted by Jahan et al., (2024), brand equity and product quality are paramount in fostering consumer loyalty and driving sales. High-quality products and strong branding create a perception of reliability and value, which are crucial in the pharmaceutical industry where consumer trust is pivotal.

Promotion strategies, particularly sales promotions and sponsorship programs, having a more significant effect on sales performance than digital platforms, public relations, advertising, and personal selling, highlight a nuanced understanding of promotional effectiveness in the context of Nairobi's manufacturing pharmaceutical market. This finding aligns with studies by Chen et al. (2018), which suggest that direct and immediate incentives, such as sales promotions, are often more effective in generating short-term sales boosts compared to other promotional activities.

Regarding place strategies, the significant effect of diverse distribution channels, effective stock management, prompt order delivery, and efficient delivery management systems on sales performance reflects the critical role of logistics and distribution in the pharmaceutical supply chain. This is corroborated by Murphy et al. (2021), who emphasizes that efficient logistics and supply chain management are vital for ensuring product availability and meeting consumer demand, thus enhancing sales performance.

Conversely, the moderate effect of strategically located warehouses and e-platforms for pharmaceutical distribution suggests that while these elements are important, they may not be as influential as other logistical factors. This finding is supported by Oketch (2019), who argue that while strategic warehousing is essential, the efficiency of inventory management and distribution networks often plays a more direct role in sales performance.

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The inferential statistics revealing strong positive correlations between sales performance and various elements of the marketing mix, particularly place strategy, further reinforce the importance of an integrated marketing approach. This supports the holistic marketing concept proposed by Kotler and Armstrong (2018), which advocates for a well-coordinated and comprehensive marketing strategy encompassing all elements of the marketing mix to achieve optimal sales outcomes.

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CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides an overview of the conclusions, recommendations, and findings from the data analysis conducted for the study on the effect of marketing mix strategies on sales performance among Nairobi County pharmaceutical manufacturing companies. The chapter is organized in accordance with the goals of the study, with a thorough explanation of each goal, general conclusions, and recommendations for additional research afterward. This methodical methodology guarantees a clear articulation of the study's contributions to academic knowledge and practical applications.

5.2 Summary of findings

This section presents a summary of the key findings from the study on the influence of marketing mix strategies on sales performance in the pharmaceutical industry in Nairobi County, Kenya.

5.2.1 Effect of Place Strategy on Sales Performance

The place strategy emerged as having the most significant impact on sales performance, evidenced by its highest coefficient in the study. This finding underscores the critical role of distribution and supply chain optimization in enhancing sales outcomes. Efficient distribution channels, effective supply chain management, and strategic placement of sales points were identified as key factors driving sales success. Improved product availability through partnerships with major distributors has notably enhanced brand visibility and increased sales.

The study also highlights the growing importance of online platforms and e-commerce in broadening market reach and increasing accessibility. Integrating digital strategies into place strategies has expanded geographical coverage and eased product access for customers, thus contributing to higher sales performance.

Challenges such as stock-outs due to delays in APIs and distributor inefficiencies have also stood out as significant concerns. Addressing these issues through improved supply chain management

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and more effective distributor partnerships is essential. Additionally, government regulations on market entry and distribution play a role, as policies regulate new product introductions to control competition and pricing. Navigating these regulatory environments and optimizing distribution channels are crucial for pharmaceutical companies aiming to enhance their sales performance and market presence.

5.2.2 Effect of Promotion Strategy on Sales Performance

Promotion strategies significantly impact sales performance within the pharmaceutical sector. Integrated marketing communications were highlighted as crucial for driving sales and enhancing profitability. Coordinated promotional efforts, including advertising, personal selling, and sales promotions, are highly effective in influencing sales outcomes. This suggests that a well-rounded approach to promotion, encompassing various methods, can substantially boost sales results and strengthen market presence.

However, challenges persist in predicting and tracking sales cycles. Respondents expressed concerns about the difficulty of forecasting and managing the duration of sales cycles for pharmaceutical products. This indicates that while promotion strategies are generally successful in driving sales, there is a need for improved sales cycle management. Addressing these challenges could further enhance the effectiveness of promotional activities.

Overall, the strong correlation between promotion strategy and sales performance underscores the critical role of well-planned and executed promotional activities. Effective promotion not only leads to immediate sales increases but also contributes to long-term brand strength and market presence. This highlights the importance of integrating comprehensive promotional strategies to achieve high sales results and meet business objectives.

5.2.3 Effect of Pricing Strategy on Sales Performance

The findings indicated that pricing strategy has a moderate influence on sales performance within the pharmaceutical sector. Cost-based pricing emerged as particularly impactful, with respondents expressing strong agreement on its effectiveness. This strategy, which involves setting prices based on production costs plus a margin, was noted for its positive influence on sales outcomes. On the other hand, setting low prices to boost product performance across various geographical areas received less support, reflecting a more moderate level of agreement

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among respondents. Overall, the perception of pricing strategies in enhancing sales performance was favorable.

Correlation analysis further supported this view, demonstrating a significant relationship between pricing strategy and sales performance. While cost-based pricing was highlighted as particularly effective, opinions on other pricing strategies, such as competitive and penetration pricing, varied among respondents. This suggests that while cost-based pricing is widely acknowledged for its effectiveness, the impact of alternative pricing strategies may differ based on specific market conditions and respondent perspectives.

5.2.4 Effect of product development strategy on sales performance

The product development strategy had the smallest coefficient, reflecting a minor impact on sales performance compared to the other strategies. This places it at the fourth level of importance, indicating that while it contributed to sales performance, its impact was relatively limited. The introduction of high-quality pharmaceutical products was identified as the most impactful strategy, reflecting the critical importance of maintaining superior product standards to drive sales. Strong branding and consistent product quality were also highlighted as key factors in enhancing customer trust and loyalty, further boosting sales performance. In contrast, opinions on the effect of organizational funding in research and development (R&D) for creating innovative product variants were more mixed. While R&D investment is acknowledged as important, its direct effect on sales performance received a more varied response, suggesting that its perceived effect may differ within the industry. Overall, the product development strategy was positively viewed, with a general consensus on its significance in improving sales performance. The correlation analysis confirmed a significant relationship between product development strategy and sales performance, emphasizing the importance of continuous innovation and quality enhancement in the pharmaceutical sector.

5.3 Conclusions

The study reveals that place strategy has the most significant effect on sales performance within the pharmaceutical manufacturing industry in Nairobi County. Efficient distribution channels and supply chain management are crucial for ensuring product availability and improving sales.

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Companies that invest in optimizing their distribution networks and partnering with reliable distributors are likely to experience enhanced sales outcomes. The findings emphasize the need for pharmaceutical manufacturing companies in Nairobi County to focus on logistics, distribution efficiency, and strategic placement to boost market penetration and sales.

Promotion strategies also play a critical role in influencing sales performance. Integrated marketing communications, including advertising, personal selling, and sales promotions, are effective in driving sales and enhancing profitability. However, challenges in forecasting and managing sales cycles were noted, indicating a need for improved sales cycle management. Despite these challenges, well-executed promotional activities contribute significantly to both immediate sales and long-term brand strength.

Pricing strategies have a moderate influence on sales performance. Cost-based pricing was found to be particularly effective, while other pricing approaches such as competitive and penetration pricing received mixed responses. This suggests that while cost-based pricing is generally viewed as effective, there is variability in opinions on other pricing strategies.

The product development strategy, despite having the smallest coefficient, remains an important factor in sales performance. High-quality products and strong branding are key drivers of sales, although the direct impact of R&D investment on sales is less consistent. Continuous innovation and maintaining superior product quality are essential for sustaining sales growth in the pharmaceutical sector.

Overall, the study highlights that optimizing place and promotion strategies, while leveraging effective pricing and product development practices, is crucial for enhancing sales performance in the pharmaceutical industry. Each strategy contributes uniquely to sales outcomes, and a balanced approach incorporating all these elements can lead to better market success.

5.4 Recommendations

Based on the findings of this study, the following recommendations are proposed to enhance sales performance in the pharmaceutical industry:

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5.4.1 Recommendation for practice

Pharmaceutical companies should focus on refining their distribution networks to ensure efficient and timely product delivery. This includes forming strong partnerships with reliable distributors and investing in advanced logistics technologies. Expanding distribution networks to cover underserved regions can enhance product accessibility and market reach.

To maximize the effect of promotional efforts, pharmaceutical companies should integrate various marketing communications channels, such as advertising, personal selling, and sales promotions. Emphasizing digital marketing, including social media and online campaigns, can improve brand visibility and customer engagement. Additionally, improving sales cycle management through better forecasting and tracking can address challenges related to predictability and enhance the effectiveness of promotions.

Pharmaceutical companies should implement cost-based pricing strategies to ensure profitability while remaining competitive. Companies should regularly evaluate and adapt pricing approaches, including competitive and penetration pricing, based on market conditions and customer feedback. Continuous assessment of pricing strategies can help align with market demand and competitive pressures.

Continuous investment in product development and innovation is crucial. Pharmaceutical companies should focus on developing high-quality products and building strong brand equity. Regularly updating product offerings, exploring new formulations, and improving existing products can drive sales growth and enhance customer satisfaction.

5.4.2 Policy recommendation

Pharmaceutical companies should engage with policymakers to advocate for regulations that facilitate market entry and reduce operational costs. Lobby for tax reductions on imported raw materials and seek government support for local manufacturing. Supportive policies can enhance competitiveness and reduce costs for pharmaceutical companies.

Additionally, they should work with regulatory bodies to simplify and streamline regulatory processes for product approval and market entry. Ensuring clear and efficient regulatory guidelines can reduce delays and help pharmaceutical companies bring new products to market more quickly.

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5.4.3 Recommendation for future studies

Future research should explore the specific effects of digital marketing strategies on pharmaceutical sales performance. Investigate how different digital channels, such as social media and e-commerce platforms, influence customer engagement and sales outcomes.

Additionally, further studies should analyze the effectiveness of various pricing strategies, including competitive and penetration pricing, in different market segments and regions. Understanding the impact of these strategies on sales performance can provide valuable insights for optimizing pricing approaches

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APPENDICES

Appendix I: Letter of Introduction to collect Data

St. Paul's University
P. O Box Private Bag – 00017
Limuru, Kenya.
To the Respondent,
Dear sir/ Madam

RE: To whom it may concern

I am a student at St. Paul's University, pursuing a Master of Business Administration degree with a focus on Marketing. As part of the requirements for this degree, I am conducting a study titled "***Effect of Marketing Mix Strategies on Sales Performance among Pharmaceutical Manufacturing Companies in Nairobi County*, Kenya"**

I have attached a questionnaire for this study and kindly request your participation by completing it. This research is solely for academic purposes, and your responses will be treated with utmost confidentiality. The information you provide in this questionnaire will be used exclusively for the purpose of this study and will remain strictly private.

Thank you for taking the time to complete the questionnaire.

Sincerely,

Stanslous Onyango Okhonjo

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Appendix II: Questionnaire

I am undertaking a study entitled, "**Effect of Marketing Mix Strategies on Sales Performance among pharmaceutical manufacturing companies in Nairobi County, Kenya"** Kindly here in find attached questionnaire, please participate in this study by filling in the blank spaces. This study is for academic purposes only and the responses shall be handled confidentially. Kindly, take little of your time to complete the questionnaire to the best of your knowledge by ticking appropriately the provided options and detailing your responses as provided in the sections attached in the questionnaire.

SECTION A: General Information

✓ Tick where appropriate

1. Gender?
   Male [ ] Female [ ]

2. Job title?
   Medical Representative [ ] Sales &Marketing manager [ ] Administrative Manager [ ] Sales Assistant [ ]

3. Duration of working?
   Below 2 years [ ] 2-5 [ ] 6-10 [ ] 10-20 [ ] 20 years and above [ ]

4. What is your highest academic qualification?
   Certificate [ ] Diploma [ ] Bachelor's Degree [ ] Post graduate [ ] others [ ]

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SECTION B: Product development strategy

On a scale of 1-5 where 1-to a very low extent; 2-to a low extent; 3- to a moderate extent; 4-to a high extent and; 5-to a very high extent, kindly (√) indicate your level of agreement with the following statements regarding the effect of product development strategy on sales performance among pharmaceutical manufacturing companies in Nairobi County.

	S/N	Product development strategy	1	2	3	4	5
1.	1	New differentiated pharmaceutical products portfolio is introduced to the market regularly					
2.	2	Organizational funding in R/D lead to innovative variants of pharmaceutical products					
3.	3	Introduction of high-quality pharmaceutical products in the market increases sales performance					
4.	4	A strong brand name of the pharmaceutical products increases visibility hence attracts more sales					
5.	5	Well labeled pharmaceutical products attracts more customers hence more sales					
6.	6	Pharmaceutical companies consistently solicits and values customer feedback on new products					

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SECTION C: Pricing strategy

On a scale of 1-5 where 1-to a very low extent; 2-to a low extent; 3- to a moderate extent; 4-to a high extent and; 5-to a very high extent, kindly (√) indicate your level of agreement with the following statements regarding the effect of pricing strategy on sales performance among pharmaceutical manufacturing companies in Nairobi County.

SN	Pricing strategy	1	2	3	4	5
1	Cost based pricing strategy has an effect on sales performance of pharmaceuticals					
2	Use of Market based prices leads to high sales of the pharmaceutical					
3	Value-based pricing positively influences the sales performance of pharmaceutical products					
4	Use of volume-based pricing strategy in pushing of pharmaceutical products to the market leads to high sales					
5	Low prices are charged in order to enhance product performance in all targeted geographical areas					
6	The application of a competitive pricing strategy improves sales outcomes.					

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SECTION D: Promotion strategy

On a scale of 1-5 where 1-to a very low extent; 2-to a low extent; 3- to a moderate extent; 4-to a high extent and; 5-to a very high extent, kindly (√) indicate your level of agreement with the following statements regarding the effect of promotional strategy on sales performance among pharmaceutical manufacturing companies in Nairobi County.

SN	Promotion strategy	1	2	3	4	5
1	Sponsorship programs contribute positively to the sales performance					
2	Use of sales promotion technique positively increases pharmaceutical products visibility hence high sales					
3	Use of advertising to reach out to customers positively increases sales of pharmaceutical products					
4	Use of public relations unit streamlines organizational communication hence increases customer satisfaction					
5	Personalized products detailing enhances customer preferences and overall sales					
6	The promotion strategy makes use of digital marketing platforms and social media to increase brand awareness.					

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SECTION E: Place strategy

On a scale of 1-5 where 1-to a very low extent; 2-to a low extent; 3- to a moderate extent; 4-to a high extent and; 5-to a very high extent, kindly (tick) indicate your level of agreement with the following statements regarding the effect of place strategy on sales performance among pharmaceutical manufacturing companies in Nairobi County.

SN	**Place strategy**	**1**	**2**	**3**	**4**	**5**
1	Different levels of channels are used in distribution of pharmaceutical products in the market					
2	Efficient stock management systems positively affect sales performance of pharmaceutical products					
3	Strategic warehousing locations contribute to improved sales performance of the pharmaceutical products					
4	Timely delivery of orders of pharmaceutical products enhances customer satisfaction.					
5	Effective delivery management systems contribute to increased sales of pharmaceutical products					
6	The place strategy expands on easily reaching customers by incorporating e-commerce distribution platforms.					

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SECTION F: Pharmaceutical products and sales performance

15. On a scale of 1-5 where 1-to a very low extent; 2-to a low extent; 3- to a moderate extent; 4-to a high extent and; 5-to a very high extent, kindly (tick) indicate your level of agreement with the following statements regarding sales performance among pharmaceutical manufacturing companies in Nairobi County.

SN	Sales Performance	1	2	3	4	5
1	Sales cycle duration of pharmaceutical products is predictable and tracked					
2	Customer conversions rate has been on steady rise					
3	Customer satisfaction with pharmaceutical products sales is high					
4	Pharmaceutical product portfolio has a strong competitive position in the market					
5	The sales performance of pharmaceutical products aligns with industry trends					
6.	The sales performance and profitability of pharmaceutical products are highly influenced by marketing mix strategies.					

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OPEN-ENDED QUESTIONS

1. Could you please elaborate on any particular marketing mix tactics that, in your opinion, have significantly improved pharmaceutical product sales?

   ……

   ……

2. What major difficulties or barriers do you think the pharmaceutical industry faces when putting marketing mix strategies into practice ……

   ……

   ……..

3. Could you provide examples of successful marketing mix initiatives that have effectively addressed customer feedback and contributed to the success of new pharmaceutical products? ……

   ……

   ……

4. How do you think advancements in digital marketing and e-commerce platforms have influenced the distribution and promotion of pharmaceutical products? ……

   ……

   ……..

5. From your perspective, what role do you think government regulations play in shaping pricing strategies for pharmaceutical products, and how do these regulations affect market dynamics?

   .. ……

   ……

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6. In what ways do you believe marketing mix strategies can be optimized to enhance the profitability of pharmaceutical products, and what potential areas for improvement do you see?

……

……..

Thank you

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Appendix III: Introduction Letter

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Website: www.spu.ac.ke

Tel Office: +254 (0) 20-2020505/10
Mobile: +254 (0) 728 - 669000
(0) 736 - 424440

BOARD OF POSTGRADUATE STUDIES

15th May, 2024

National Commission for Science and Technology,
P.O. BOX 30623-00100,
Nairobi.

Dear Sir/Madam,

RE: RECOMMENDATION FOR STANSLOUS ONYANGO OKHONJO – MBADIST544522 TO CONDUCT RESEARCH

This letter confirms the above-named person is a student in the Master of Business Administration Program at St. Paul's University.

The second year consists of a major research work leading to a Thesis. The student's selected topic is:

"Impact of marketing mix strategies on sales performance among pharmaceutical manufacturing companies in Nairobi County- Kenya."

Kindly grant this student the required permit.

Yours Faithfully,

DIRECTOR POSTGRADUATE STUDIES ST. PAUL'S UNIVERSITY 15 MAY 2024

Dr. John Muneho
Director Board of Postgraduate Studies

St. Paul's University Repository

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Appendix IV: Research Permit from NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **193597**

Date of Issue: **28/May/2024**

RESEARCH LICENSE



This is to Certify that Mr.. STANSLOUS ONYANGO OKHONJO of St. Paul`s University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: IMPACT OF MARKETING MIX STRATEGIES ON SALES PERFORMANCE AMONG PHARMACEUTICAL MANUFACTURING COMPANIES IN NAIROBI COUNTY for the period ending : 28/May/2025.

License No: **NACOSTI/P/24/36058**

193597

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

Appendix V: Time Plan of Work

Activity description	Oct 2023	Nov 2023	Dec 2023	Jan 2023	Feb 2023	Mar 2023	Apr 2024	May 2024	June 2024	July 2024
Concept Development										
Proposal Development										
Proposal Defense/ Corrections										
Data Collection/ Data Analysis &presentation										
Report Writing										

Source: (Author, 2024)

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Appendix VI: Budget Plan

Item description	Activity	Estimated costs (Kshs)	Total costs (Kshs)
Project Development	Typing Photocopying Printing Binding etc.	100,000	100,000
Pre-testing	Questionnaires Photocopying	10,000	20,000
Research Tools	Questionnaires Administration	30,000	30,000
Transportation	Fuel & Vehicle Maintenance	20,000	20,000
Miscellaneous			30,000
TOTAL (Kshs)			**200,000**

Source: (Author, 2024)

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Appendix VII: List of Pharmaceutical Manufacturing Companies in Kenya

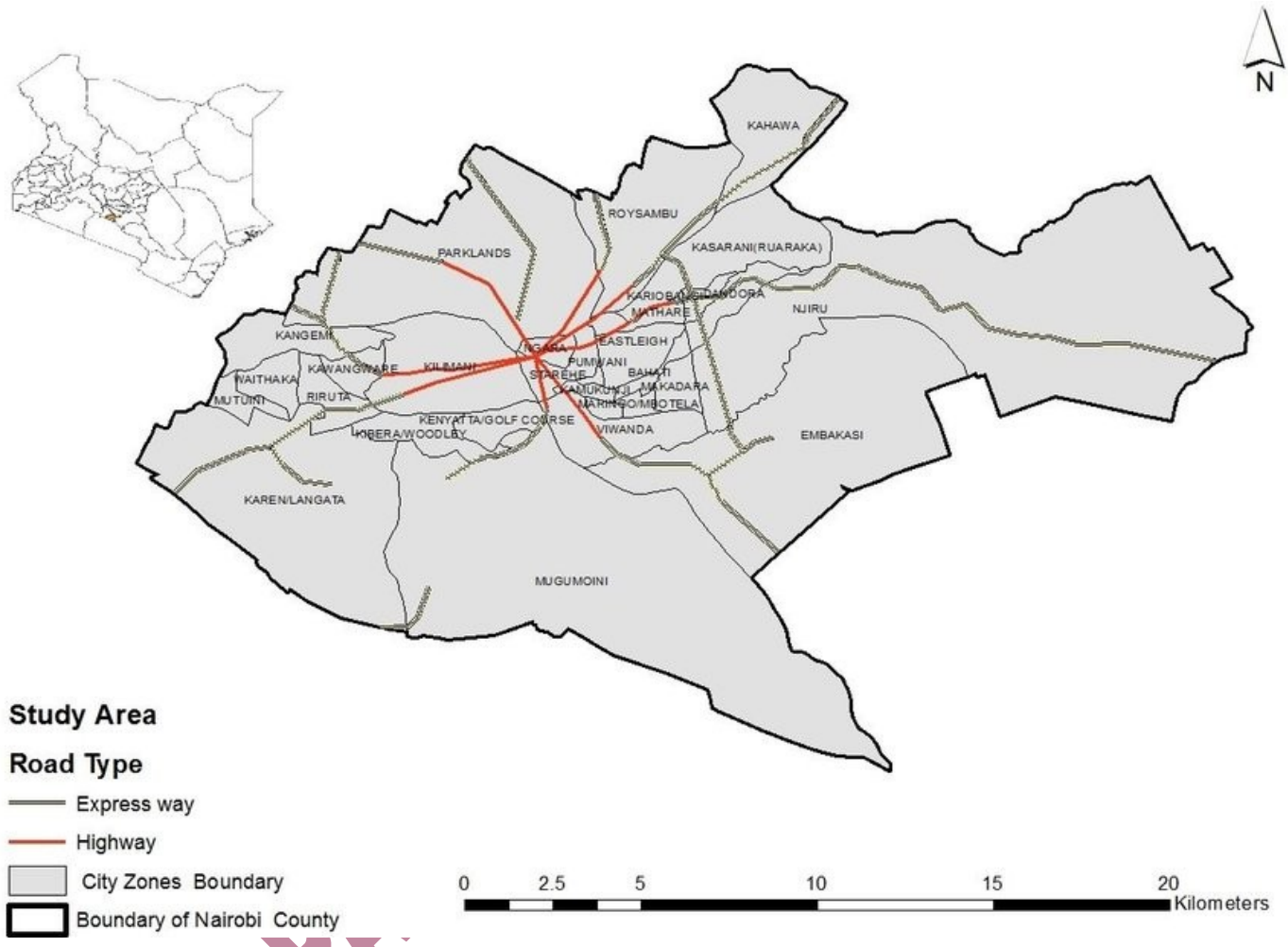
S/N	Name of pharmaceutical company	Town	Ppb	Status

		located	registration	
1.	Aesthetics limited	Nairobi		Active
2.	Autosterile (Ea) ltd	Nairobi	PPB/A/MM	Active
3.	Benmed pharmaceuticals	Kiambu	PPB/B/M	Active
4.	Beta healthcare ltd	Nairobi	PPB/BM	Active
5.	Biodeal laboratories ltd	Nairobi	PPB/B/BM	Active
6.	Biopharma ltd	Nairobi	PPB/B/M	Active
7.	Concepts (Africa) ltd	Nairobi	PPB/C/433	Active
8.	Comet healthcare ltd	Nairobi	PPB/C/M	Active
9	Cosmos pharmaceuticals ltd	Nairobi	PPB/C/M	Active
10.	Dawa ltd	Nairobi	PPB/DM	Active
11.	Ellys chemical industries enterprise road ltd	Nairobi	PPB/E/026	Active
12	High-tech pharmaceuticals research ltd	Nakuru	PPB/H/1532	Active
13.	Laboratory & allied ltd	Nairobi	PPB/LM	Active
14.	Macs pharmaceuticals ltd	Nairobi	PPB/MN	Active
15.	Medivet products	Kiambu	PPB/M/M	Active
16.	Njimia (k) ltd	Kajiado	PPB/NM/597	Active
17.	Oss- chemie (k) ltd	Nairobi	PPB/OM	Active
18.	Questa care ltd	Nairobi	PPB/QM	Active
19.	Regal pharmaceuticals ltd	Nairobi	PPB/RM	Active
20.	Sphinx pharmaceuticals ltd	Nairobi	PPB/M/S	Active
21.	Tasa pharmaceuticals ltd	Nairobi	PPB/T/5394	Active
22.	Trupharma manufacturing ltd	Nairobi	PPB/T/5370	Active
23.	Universal corporation ltd	Kiambu	PPBUM	Active
24.	Viva healthcare ltd	Nairobi	PPB/V/303	Active
25.	Zain pharma ltd	Nairobi	PPB/Z/1123	Active

Source: (Pharmacy & Poisons Board, PPB, 2024)

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Appendix VII: Map of Nairobi County



Appendix: VII Similiarity Report

Stanslous

ORIGINALITY REPORT

17%	16%	3%	10%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Kenyatta University Student Paper	1%
2	erepository.uonbi.ac.ke Internet Source	1%
3	ir.kabarak.ac.ke:8080 Internet Source	1%
4	Submitted to KCA University Student Paper	1%
5	pdfs.semanticscholar.org Internet Source	1%
6	su-plus.strathmore.edu Internet Source	1%
7	ir.mu.ac.ke:8080 Internet Source	1%
8	theijbmt.com Internet Source	1%
9	Submitted to Mount Kenya University Student Paper	<1%