

Influence of Organizational Structure on the Performance of Pharmaceutical Manufacturing Companies in Nairobi County

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ABSTRACT

An effective organizational structure can greatly enhance operational efficiency, decision-making, and overall performance, allowing companies to stay competitive in the market. Despite the importance of organizational structure in improving company performance, many companies are yet to fully leverage its potential. This paper sought to examine the influence of organizational structure on the performance of pharmaceutical manufacturing companies in Nairobi County. The study applied a descriptive research design. The study gathered data through questionnaires which were administered both physically and online. Data collected was analyzed through both descriptive and inferential analysis. Results revealed a β of 0.351 and a p-value of 0.001, between organizational structure and the performance of pharmaceutical manufacturing companies. The study concluded that organizational structure had a positive and significant influence on the performance of pharmaceutical manufacturing companies in Nairobi County. The study recommends that pharmaceutical manufacturing companies should strengthen their organizational structure by ensuring that authority levels and reporting relationships are clearly defined. The study also recommends that pharmaceutical manufacturing companies in Nairobi County should encourage autonomy and empowerment across all management levels. Lastly, the study recommends that pharmaceutical manufacturing companies in Nairobi County should foster a flexible decision-making process that allows for timely adjustments.

Key Words: Organizational Structure, Performance, Pharmaceutical Manufacturing Companies, Nairobi County

INTRODUCTION

Performance is one of the most crucial factors for the success and survival of firms operating in today's complex economy. It covers such indices as profits, cost, market legitimacy, and customer satisfaction, which all point to the extent to which the goals of an enterprise are being realized (Seclen-Luna et al., 2022). Higher levels of performance yield higher revenue, better reputation, and most importantly a bigger share of the market. Nevertheless, steady and uninterrupted improvements bring positive changes that reflect on innovation, employee morale, and customer relations which are critical determinants for sustainable growth and survival. In every firm around the globe, an evaluation and enhancement of performance is not only about operating but also thriving in a volatile market environment (Brooks & Oikonomou, 2018).

Organizational structure is the overall framework of authority relationships, communication channels, and

duties within an organization. Organizational structure defines the ways work activities are partitioned, the hierarchical reporting relationships to be observed, and the organizational communication and cooperation protocols to be adopted. It lays down the framework for best practices and processes associated with daily work. It also impacts the organization's culture and the way people behave within the organization. Effective organization structure hence enables an organization to meet its goals and objectives by providing a framework that proactively defines responsibilities, facilitates communication, and optimizes resource utilization. On the other hand, a structure that has been designed inappropriately may cause a lot of confusion and issues that will lead to conflict and poor working in an organization (Abubakar et al., 2019).

A firm's organizational structure is a fundamental element that cannot be overlooked in organizations all organizations. It is arguably one of the most crucial success factors that any company must consider to be able to compete successfully in the global arena. For instance, in the United States of America (USA), Apple Inc. has been in a position to maintain its monopoly since it practices a hierarchical management system that hinders it from decentralizing control hence providing high quality and innovation (Kreiss & McGregor, 2018). In Japan, Toyota's matrix structure has facilitated efficient management of its global operations, allowing it to integrate its functional and regional divisions seamlessly. These structures are essential for managing complex operations and enabling companies to respond quickly to changes in the market. A clear organizational structure helps firms coordinate activities, allocate resources effectively, and ensure that all parts of the organization are working towards common goals (Joseph & Gaba, 2020).

Indeed, it is evident that for organizations in African countries, there is a need to have organizational structures that will enable them to fit into both the local and the global environment. Sasol an integrated energy and chemical company located in South Africa employs the functional structure as an organizational structure to meet its global operations. This structure makes it easier to support its core activities such as research and development, sales and marketing, and production because the functions are centralized (Bag et al., 2021). The Dangote Group of Companies in Nigeria has a divisional organizational structure which enables it to operate its wide range of manufacturing operations including cement manufacturing and food processing. This structure makes it easier for each division to narrow down its operations to relevant markets, increasing flexibility. The environment in Africa is even more challenging in terms of infrastructure and regulations, and this makes the organizational structure even more important for African firms (Agwu, 2018).

In Kenya, the influence of organizational structure on firm performance is particularly evident in the pharmaceutical manufacturing sector. The right organizational structure can streamline operations, enhance productivity, and ensure regulatory compliance. However, many companies in Nairobi County struggle with structural inefficiencies. According to the Kenya Association of Pharmaceutical Industry (KAPI), 43% of pharmaceutical companies in Nairobi County reported a decline in profits. Furthermore, 31% of these companies experienced a reduction in their market share whereas 7% of the firms exited the market. These issues highlight the need for better-designed organizational structures to improve coordination and efficiency within companies (Mailu, Ntale & Ngui, 2018).

A survey by KPMG (2022), revealed that 61% of these companies struggle with inadequate coordination between departments, resulting in delays and increased operational costs. Additionally, a survey by KwC (2019), revealed that more than 50% reported issues with regulatory compliance, which they attributed to fragmented organizational structures that hinder effective implementation of quality control measures. These challenges are compounded by a lack of clear communication channels and role definitions, leading to confusion and inefficiency. Addressing these gaps is essential for pharmaceutical companies to enhance their competitiveness, comply with regulatory standards, and achieve sustainable growth in a rapidly evolving industry (Ochieng, 2018; Wairimu & Ndeto, 2019).

While the role of organizational structure in a firm's performance is well-documented (Njuguna, 2018;

Omondi & Muli, 2020), few studies have sought to examine the role of organizational structure on the performance of private entities. Most studies have focused on the role of organizational structure in strategy implementation and performance in general. For instance, Njeri and Ndegwa (2023) examined the role of organizational structure in strategy implementation in the Kenya Ports Authority. There is a research gap on the role of organizational structure in the performance of private entities in the Kenyan context. It is against this backdrop that this study sought to explore the influence of organizational structure on the performance of pharmaceutical manufacturing companies in Nairobi County. The conclusions from this study offer recommendations on the various strategies that can be implemented to enable pharmaceutical manufacturing companies in Nairobi County to achieve its strategic goals of healthcare provision.

It was important to study the link between organizational structure and performance within pharmaceutical manufacturing companies in Nairobi County for the following reasons; it contributes to the identification of areas of imbalance that can affect performance and adherence to structures. Knowledge of the current structures helps the companies to adopt the most suitable structures for their operations thus enhancing the efficiency and implementation of innovations. Furthermore, a sound structured organization can easily manage the critical issues related to the organization such as the legal requirements, supply chain, and others that are industry-specific. This can result in improved health and or economic productivity and therefore improve the general health of the general public.

THEORY AND LITERATURE REVIEW

The Contingency Theory

Contingency Theory was developed in the 1960s by researchers such as Joan Woodward, Paul Lawrence, and Jay Lorsch. Joan Woodward's studies in the 1950s and 1960s on the relationship between technology and organizational structure were foundational, highlighting that different technologies require different organizational designs. Paul Lawrence and Jay Lorsch further expanded the theory in their 1967 book "Organization and Environment," which emphasized that organizational effectiveness results from fitting the organization's structure to various contingencies such as the environment, technology, and size (McAdam, Miller & McSorley, 2019).

The key argument of the theory is that there is no single best way to organize a corporation, lead a company, or make decisions. Instead, the optimal course of action is contingent (dependent) upon the internal and external situation. The theory posits that organizational effectiveness is achieved by fitting organizational structure and management practices to contingencies like the external environment, organizational size, technology, and strategy. For instance, in stable environments, mechanistic structures (highly formalized and centralized) might be effective, while in dynamic environments, organic structures (decentralized and flexible) are preferred. The theory stresses adaptability and alignment of various organizational aspects to achieve performance optimization (Abba, Yahaya & Suleiman, 2018).

Despite its contributions, Contingency Theory has faced criticisms. Critics argue that the theory can be overly simplistic and deterministic, assuming a linear and direct relationship between contingencies and organizational structures. Others point out that it lacks specificity and can be difficult to apply in practice due to the complexity and interplay of multiple contingencies. However, the Contingency Theory remains valuable for its flexibility and practical insights (Sunder M & Prashar, 2020).

In pharmaceutical manufacturing companies, Contingency Theory is particularly relevant because it provides insights into how these companies operate in a highly regulated and dynamic environment, where compliance with stringent regulations, rapid technological advancements, and market responsiveness are critical. By applying Contingency Theory, the study can examine how different organizational structures influence performance metrics such as regulatory compliance, innovation, and operational efficiency.

Understanding the specific contingencies that affect these companies allows for tailored recommendations to optimize organizational structures, ultimately enhancing their performance in a competitive and regulated market (Ngugi, 2021).

Empirical Literature Review

A study by Mutunga, et al. (2024), investigated the impact of organizational structure on the performance of pharmaceutical manufacturing companies in Nairobi County. A descriptive research design was employed for this purpose. The study's population consisted of 71 pharmaceutical manufacturing companies in Nairobi County, which served as the units of analysis. The targeted respondents included procurement managers, finance managers, and marketing managers, totaling 288 individuals. A stratified random sampling technique was used, applying the Taro Yamane formula to determine the sample size. Data collection was conducted using both physical and electronic questionnaires. The collected data were analyzed using SPSS, employing both descriptive and inferential statistics. The findings revealed an R-square of 0.692, an F-ratio of 344.992, a beta score of 0.958, and a p-value of 0.001. The results indicated that organizational structure had a significant and positive effect on the performance of pharmaceutical manufacturing companies in Nairobi County. However, the study was limited by focusing solely on the direct relationship between the variables without considering potential indirect influences. Additionally, the applicability of the findings to the broader pharmaceutical industry in Kenya should be approached with caution due to differences in business environments. The study recommended that leading pharmaceutical companies in Nairobi County invest in leadership development programs to enhance their leaders' capabilities.

Kuria and Kimutai (2020) explored how the internal organizational environment impacts project performance in construction firms in Nairobi City County, Kenya. Employing a descriptive design and mixed research methodology, the study surveyed 98 employees from 49 registered construction firms in Nairobi. Semi-structured questionnaires were used alongside secondary data. The analysis involved both descriptive and inferential statistics. With an 80% response rate, the study revealed a significant positive relationship between the internal organizational environment and project performance. The study suggests improvements in communication, employee training, reward systems, and shared values within construction firms to enhance performance.

Wanjiru, et al. (2019) investigated the impact of corporate strategies, specifically market development, product development, and diversification on the performance of manufacturing firms in Nairobi City County, Kenya. Utilizing survey data from 148 manufacturing firms, the research reveals a significant and positive relationship between corporate strategies and firm performance. These findings underscore the importance for managers and policymakers in manufacturing firms to prioritize the development and execution of effective corporate strategies to improve overall performance. However, the study focused solely on manufacturing firms that operate in different dynamics compared to those in the private entities therefore presenting a contextual gap.

Jepherson, et al. (2021) examined how various corporate strategies impact the performance of logistics organizations in Nairobi County. Specifically, it sought to investigate the influence of turnaround strategy, business process re-engineering strategy, business process outsourcing strategy, and total quality management strategy on the performance of these organizations. Conducted through a descriptive and quantitative research design, the study involved multi-level management staff of logistics firms in Nairobi County as the population. Utilizing regression analysis, the study found a strong correlation (correlation coefficient of 0.883) among the variables, indicating a significant impact on performance. The adjusted R-squared value of 0.78 suggested that 78.0% of the variations in performance could be explained by these strategies. The findings underscored the importance of further research into the effects of corporate strategies on the performance of logistics organizations and other industries within the county.

Kimwaki, et al. (2022) examined how operations and processes affect the performance of manufacturing firms in Kenya. Descriptive and cross-sectional research designs were employed, sampling 160 large industrial companies out of the 461 registered members using Cochran's formula. Data was collected through standardized questionnaires and subjected to both qualitative and quantitative analysis, including descriptive and inferential techniques. The results indicated a significant relationship between operations/processes and performance, with operations/processes explaining 30.5% of the performance variations. The study recommends policy measures to integrate supply chain operations and processes into manufacturing sector policies and regulations, emphasizing the pivotal role of policymakers and management in enhancing sector performance through the effective implementation of supply chain processes. The main research gap in this study is that it focused on manufacturing firms making it hard to generalize the results in the private sector. Nevertheless, the study offers important insights into the role of organizational structure on organizational performance.

DATA AND METHODS

Research Design: This study applied a descriptive research design to observe and describe the behaviors of a particular phenomenon. Utilizing a descriptive research design, the researcher was concerned with gathering data to answer questions on “who”, “where”, “how”, “when” and “what” to present an objective account of the subject. This approach enabled the researcher to investigate the influence of organizational structure on the performance of pharmaceutical manufacturing companies in Kenya. The study targeted 71 pharmaceutical manufacturing companies in Nairobi County as the unit of observation, whereas the unit of analysis was 288 managers of the pharmaceutical manufacturing companies in Nairobi County.

Sample and Sampling Methods: The current study applied a stratified random sampling technique in addition to the Taro Yamane to come up with the desired sample size. The formula is given below:

$$n = N / [1 + N(e^2)] \dots\dots\dots \text{Equation (i)}$$

Whereby N is the population of the study, n is the sample size and is the sample margin of error. With a margin error of 5% the sample size was as follows. The sample size was therefore implemented as follows:

$$n = 288 / [1 + 288(0.05^2)]$$

$$n = 288 / [1 + 288(0.0025)] = 167.44, \text{ which was determined as 167 to the nearest whole number.}$$

Data Collection Instruments and Methods: The study used questionnaires which were administered both physically and online to respondents to gather data for the study. The instrument was subjected to pilot tests to establish its validity and reliability. Validity was tested through Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO) tests at a chosen significance level of 0.05.

Data Analysis: Primary data gathered was analyzed through both descriptive and inferential analyses. Descriptive analysis involved the calculation of measures of central tendencies (mean, frequency, and percentages) as well as measures of dispersion (standard deviation). Concurrently, inferential analysis employed regression and correlation analyses with a significance level set at 0.05 to determine the influence of organizational structure on the performance of pharmaceutical manufacturing companies in Nairobi County.

$$Y=B0+B1+e\dots\dots\dots \text{Equation (ii)}$$

Where Y was the performance of pharmaceutical manufacturing companies in Nairobi County, BO was the constant, $B1$ was the coefficient for organizational structure and e was the error term.

RESULTS AND DISCUSSIONS

Response Rate: 167 questionnaires were administered both electronically and physically. Out of the possible 167 questionnaires, a total of 151 questionnaires were returned indicating a response rate of 90.41%.

Descriptive Statistics

Descriptive Statistics on Organizational Structure

Table 1 revealed that respondents agreed with the statement, “Our organizational structure clearly defines authority levels and reporting relationships” shown by a mean of 3.58. Besides, respondents agreed with the statement, “We have departments and divisions that have clear roles and responsibilities” indicated by a mean of 3.90. Moreover, respondents agreed with the statement, “Our organization encourages autonomy and empowerment at all levels of management” shown by a mean of 3.86. Lastly, respondents agreed with the statement, “Our organization’s decision-making process is flexible and allows for timely adjustments indicated by a mean of 3.87.

Kimwaki, Ngugi & Odhiambo, (2022) supported the findings of the study in an examination of how operations and processes affect the performance of manufacturing companies in Kenya. Data was collected through standardized questionnaires and subjected to both qualitative and quantitative analysis, including descriptive and inferential techniques. The results indicated a significant relationship between operations/processes and performance, with operations/processes explaining 30.5% of the performance variations.

Table 1: Descriptive Statistics on Organizational Structure

Statement	SA	D	N	A	SA	Mean	Standard Deviation
Our organizational structure clearly defines authority levels and reporting relationships	7.3%	13.9%	13.9%	43.0%	21.9%	3.58	1.185
We have departments and divisions that have clear roles and responsibilities	2.6%	12.6%	6.0%	49.7%	29.1%	3.90	1.044
Our organization encourages autonomy and empowerment at all levels of management	4.0%	11.9%	6.6%	49.0%	28.5%	3.86	1.083
Our organization’s decision-making process is flexible and allows for timely adjustments	4.0%	10.6%	7.3%	51.0%	27.2%	3.87	1.056

Descriptive Statistics on Organizational Performance

Table 2 revealed that respondents agreed with the statement, “Our company has consistently achieved its sales targets” shown by a mean of 4.01. Respondents also agreed with the statement, “Our organization optimizes profits while minimizing costs” as indicated by a mean of 3.93. Lastly, respondents agreed with the statement, “Our organization has consistently had employee growth” shown by a mean of 3.97.

Table 2: Descriptive Statistics on Organizational Performance

Statement	SD	D	N	A	SA	Mean	Standard Deviation
Our company has consistently achieved its sales targets	2.6%	7.3%	9.9%	47.0%	33.1%	4.01	0.983
Our organization optimizes profits while minimizing costs	4.0%	9.3%	12.6%	38.4%	35.8%	3.93	1.102
Our organization has consistently had employee growth	4.0%	7.9%	13.9%	35.1%	39.1%	3.97	1.101

Regression Analysis

Table 3 revealed that 19.7% of the changes in the performance of pharmaceutical manufacturing companies were explained by organizational structure as indicated by an r-square of 0.197. Further, the results revealed an F-statistic value of 36.564 with an associated p-value of 0.001, which suggests that the linear regression model applied by the study was a significant fit in predicting the performance of pharmaceutical manufacturing companies.

The table also indicates a beta coefficient of 2.710 and a p-value of 0.001 which indicates that the constant in the model was statistically significant in the prediction of the performance of pharmaceutical manufacturing companies. Additionally, results revealed a beta value of 0.351 and a p-value of $0.001 < 0.05$ between organizational structure and the performance of pharmaceutical manufacturing companies which implied that organizational structure significantly influenced the performance of pharmaceutical companies in Nairobi County since the calculated p-value of 0.001 was less than critical chosen value of 0.05. The findings of the study are in agreement with the previously conducted study by Mutunga, et al. (2024) who investigated the influence of organizational structure on the performance of pharmaceutical manufacturing companies in Nairobi County. The results established that organizational structure had a significant and positive effect on the performance of pharmaceutical manufacturing companies in Nairobi County.

Table 3: Regression Analysis

Model Summary						
Model	R	R Square	Adjusted R Square		Std. Error of the Estimate	
1	.444 ^a	.197	.192		.84366	
ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	26.025	1	26.025	36.564	.000 ^b
	Residual	106.053	149	.712		
	Total	132.078	150			
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.710	.219		12.360	.000
	organizational Structure	.351	.058	.444	6.047	.000

1. Dependent Variable: Performance
2. Predictors: (Constant), organizational structure

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that pharmaceutical manufacturing companies in Nairobi County had their organizational structure clearly defined authority levels and reporting relationships. Besides, the study concluded that pharmaceutical manufacturing companies in Nairobi County had departments and divisions that had clear roles and responsibilities. Moreover, the study concluded that pharmaceutical manufacturing companies in Nairobi County encouraged autonomy and empowerment at all levels of management. Additionally, the study concluded that pharmaceutical manufacturing companies in Nairobi County had their organizations' decision-making process flexible and allowed for timely adjustments. The study also concluded that pharmaceutical manufacturing companies in Nairobi County consistently achieved their sales targets, optimized profits while minimizing costs and consistently had employee growth. Lastly, the study concluded that organizational structure significantly and positively influenced the performance of pharmaceutical manufacturing companies in Nairobi County.

The conclusions of the study, therefore, align with the contingency theory that suggests that there is no single best way to organize a corporation, lead a company, or make decisions. Instead, the optimal course of action is contingent (dependent) upon the internal and external situation. The theory posits that organizational effectiveness is achieved by fitting organizational structure and management practices to contingencies like the external environment, organizational size, technology, and strategy. The theory stresses adaptability and alignment of various organizational aspects to achieve performance optimization.

The study recommends that pharmaceutical manufacturing companies in Nairobi County should continue to strengthen their organizational structure to enhance performance ensuring that authority levels and reporting relationships are clearly defined. Additionally, the study recommends that pharmaceutical manufacturing companies in Nairobi County should maintain well-defined roles and responsibilities within departments and divisions for operational efficiency. The study also recommends that pharmaceutical manufacturing companies in Nairobi County should encourage autonomy and empowerment across all management levels to further drive innovation and employee satisfaction. Furthermore, pharmaceutical manufacturing companies in Nairobi County should foster a flexible decision-making process that allows for timely adjustments to enable companies to adapt swiftly to market changes and challenges and improve overall performance and competitiveness.

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