Analysis of the Role of Functional Benchmarking on Service Delivery in Multinational Pharmaceutical Companies in Nairobi City County, Kenya.

Betty Mukiri Murerwa*, Godfrey Muigai Kinyua
School of Business, Kenyatta University, Nairobi, Kenya

*Corresponding Authors: Betty Mukiri Murerwa. School of Business, Kenyatta University, Nairobi, Kenya

Abstract: Improved service delivery in pharmaceutical industry is vital in saving the lives of children dying of diseases in Africa. However, the country heavily imports drugs to cater for the needs of the public health sector. This call for effective provision of medical services though the administration of pharmaceutical products. The study therefore examined the effect of functional benchmarking on service delivery in Multinational Pharmaceutical companies in Nairobi City County, Kenya. Descriptive research design was used in this study. The study population comprised of management employees from the multinational pharmaceutical companies based in Nairobi County and this made it easy for data collection since the majority have got their headquarters based within Nairobi. Structured questionnaire was used to collect data for the census survey. Collected data was then sorted out and descriptive and inferential analysis were run to analyze the quantitative data by use of the SPSS software. The analyzed data was then presented by use of figures and tables. The study findings revealed that functional benchmarking has a positive correlation with service delivery among Multinational pharmaceutical firms in Nairobi City County, Kenya. Simple linear regression analysis revealed functional benchmarking has a positive statistically significant effect on service delivery of pharmaceutical firms in Nairobi City County, Kenya.

Key words: Functional Benchmarking and Service delivery.

1. INTRODUCTION

The pharmaceutical industry is crucial in constant production, development, and marketing of medication to the potential clients who need to seek their services (Bogdan & Dombrowski, 2019). Pharmaceutical firms have made it easy for people to access medication and therefore reducing the mortality rate in major parts of the world (World Health Organization Report, 2014). Pharmaceutical firms’ successes are mainly determined by the level of competition from the practitioners and other firms (Hadland, Aguirre, Marshall & Cerdá, 2019). In the year 2014, it was found out that the total revenue collection made in pharmaceutical industries within North America alone exceeded one trillion US dollars according to a study done by the World Health Organization in 2015 (WHO Report, 2015).

In the African continent, there has been increased growth in the pharmaceutical market (Chorev, 2019). As per a report by PROPARCO (2012), there has been a 26% increase in the number of pharmaceutical firms annually. However, according to a report by Health Africa (2015), half of the population in Africa are not able to access essential drugs, which often results to death. In Kenya, the Pharmaceutical industry has a high level of competition and was featured by wars in prices (Kenya Economic Survey, 2017). Government policies dictate the price structure given out by the multinational pharmaceutical firms. As a strategy for remaining relevant in the industry, these firms thus have to adopt strategies which act as their tools for survival (Hadland et al, 2019).

On the other hand, Service delivery encompasses the satisfaction of customers both tangible and intangible (Kothari, 2013). It is an immediate output of the inputs such as effective and efficient procurement supply chains, investment and competent human resources which are incorporated in the pharmaceutical system. Well delivered service qualifies if it meets and exceeds the expectations of the customer when it comes to quality, quantity, and cost (KEMSA, 2013. Service delivery output for pharmaceutical firms in Kenya significantly contribute to their success (Mailu, Ntale & Ngui, 2018).
The firms have to get permit once they comply with the regulations set by the pharmacy and poisons board (Emmanuel, 2017). A good service strategy set by the pharmaceutical company should not be that which compress the clients in terms of affordability of the products by raising the purchasing fee (Ouma, 2018).

The aim of benchmarking is to help firms learn from each other at the same time it gives them an opportunity to understand how other firms within the same area of operation carry out their daily operations, which helps the firms improve on their operations (Klychova, Ziganshin, Zakirova, Valieva & Klychova, 2017). Benchmarking in multinational pharmaceutical firms in Kenya enables the acquisition of new strategies and knowledge that has made the firms have relevant service delivery strategies to make them successful in the competitive market. For effective service delivery to be achieved, the pharmaceutical firms need to identify the reason as to why they need to carry out the benchmarking exercise (Sangwan & Choudhary, 2018). Common functions among organizations can be difficult to find during functional benchmarking as found from Limitations of Benchmarking Practices (Mailu et al, 2018). Organizations must, therefore, be in a capacity to visualize on how to identify and adopt the best practices.

According to Kenya Medical Suppliers Agency (KEMSA, 2017), multinational pharmaceutical firms in Kenya comprise of manufacturers and producers. They have a labor force of more than 3500 personnel, with 60% being in direct production. 90% of the multinational pharmaceutical firms are based in Nairobi with the remaining 10% distributed in other parts of the country. Up until 2020, the pharmaceutical industry in Kenya was worth US$ 500Milion (KEMSA, 2020). However, according to a report given out by Pharmacy and Poisons Board in September 2017, it was realized that it was necessary for improvements to be made on the service delivery measures by both the local and multinational pharmaceutical firms based in Kenya.

The local pharmaceutical industries only managed to get the government and private sector to spend only 30% in the pharmaceutical market and much less from the international donors (Klychova et al, 2018). The findings from other previous studies on service delivery include Jenifer and Allan (2017), who found that sales volume and market share affected the service delivery of manufacturing pharmaceutical firms in Nairobi. Another study conducted by Ouma (2018), revealed that generic benchmarking had a direct effect on service delivery. Since these studies focused on other benchmarking strategies, the current study assessed the effect of functional benchmarking on service delivery of pharmaceutical firms in Nairobi City County.

2. LITERATURE REVIEW

2.1. Goal Orientation Theory

Goal orientation theory was proliferated by Dweck (1986). The theory holds that individuals do hold personal beliefs regarding intelligence and consider it to be incremental as the case of learning orientation or stable as was the case in the orientation of service delivery. Hoffman, and Rangenbach (1993) content that goal orientation was a framework of cognitive nature, which is used to interpret feedback, reacting to challenges in goal attainment and responding to service delivery outcomes. As per Pedro and Luis (2002), individuals adapt either avoidance or mastery strategies towards service delivery and goal achievement.

Goal orientation theory suggests that competitive advantage can only be achieved as a result of employees’ motivation. The extent of organizational belief and extent of goal orientation affects the organizational performance in the long run (Jones, 2013). Goal orientation theory examines the reasons why the business environment engages in developing motivational agendas to improve business ideas. The theory is inclined towards achieving a firm’s short-term and long-term goals. In the same breadth, benchmarking strategies can be implemented on short and long term basis. According to Georges (2013), many organizations end up implementing ideas of the Goal Orientation Theory by indulging in practicing new ideas for their increased organizational performance.

The theory further suggests that different kind of goals set aside by an organization was influenced by their motivation to improve its current state. Developing proper benchmarking strategies was one of the modern ways of improving service delivery in both local and multinational organizations. Multinational Pharmaceuticals firms in Kenya require continuous motivations that are goal-driven to
improve on their performance as suggested by Goal Orientation Theory. Therefore, this theory was relevant for informing on functional benchmarking strategy and service delivery as research variable for this study.

2.2. Empirical Literature Review

Peters (2015), conducted a study on the role of benchmarking in supporting service delivery at public Universities in Nairobi County. The study findings revealed that benchmarking, in particular functional benchmarking strategy played a crucial role in influencing the service delivery of the public universities. The study focused on universities and the current study based its focus on pharmaceutical firms in Nairobi City County.

Another study conducted by Wambulua (2011), on the effect of external benchmarking on service delivery of County government of Nakuru, revealed that functional benchmarking was positively correlated with service delivery. The findings also proved a strong and significant effect that functional benchmarking had on service delivery of the County government. The study’s scope was based in Nakuru County and had its focus on the county government. The current study scope was Nairobi City County, while its population was the multinational pharmaceutical firms.

Magutu (2011) found that by participating in benchmarking, public universities in Kenya gained a much deeper understanding on the processes and practices as well as more insight on academic operations necessary for improved performance. Though the exploration was centered in the public Universities in Kenya, this study was based on the service delivery of Pharmaceutical Firms in Nairobi, Kenya.

Additionally, another survey was performed by Wawira (2016) on benchmarking strategies and performance of large Hotels in Nairobi County. All the large hotels registered and licensed by the tourism regulatory authority and based in Nairobi County formed the population of the study. From the population, 30 hotels were sampled. Both the descriptive and inferential statistics conducted. Regression analysis was run to determine the effect the independent variables had on the dependent variable. Results revealed that benchmarking had a positive and significant effect on the performance of large hotels in Nairobi County. The current study on its part, assessed the effect of benchmarking on service delivery of pharmaceutical firms in Nairobi City County.

![Conceptual Framework](source: Researcher (2021))

On the basis of the conceptual framework, the research objective for this study was;

**To examine the effect of functional benchmarking on the service delivery in Multinational Pharmaceutical Firms in Nairobi City County, Kenya**

3. **RESEARCH METHODOLOGY**

The study adopted descriptive research design. According to Creswell (2014), a research design is a framework that a researcher chooses to help in tackling the research problem at hand. Descriptive design is better placed to give accurate information (Mugenda, Mugenda, 2013). It also explains the phenomenal relationship between external benchmarking and service delivery in multinational pharmaceutical firms in Nairobi City County, Kenya over other research designs. Notably, descriptive research design has been employed in past quantitative studies (King’oo, Kimencu & Kinyua, 2020; Kung’u, Kahuthia & Kinyua, 2020; Gatuyu & Kinyua, 2020; Muthoni & Kinyua, 2020; Ontita & Kinyua, 2020; Mbugua & Kinyua, 2020).
The study’s population comprised of pharmaceutical companies in Nairobi City County. The target population comprised of management employees from multinational pharmaceutical companies based in Nairobi County. These firms included; GlaxoSmithKline (GSK) pharmaceuticals, Betta Healthcare International, Bayer East Africa, Roche pharmaceuticals, Sanofi, Novartis and Pfizer Labs Limited represented in table 1 below.

Table 1. Target population

<table>
<thead>
<tr>
<th>Strata Target</th>
<th>Population</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Management</td>
<td>20</td>
<td>15.6%</td>
</tr>
<tr>
<td>Middle Management</td>
<td>30</td>
<td>23.4%</td>
</tr>
<tr>
<td>Employees</td>
<td>78</td>
<td>61%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>128</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>


A census survey was adopted to gain insight on the various strategies employed in service delivery by Multinational Pharmaceutical firms in Nairobi City County in Kenya. A census survey was deemed appropriate as the population of study was not too large hence capturing all the relevant data to enable comparison of the strategies in place by these firms. With this method, all the 128 managers were involved in the survey.

Primary data was used for purposes of analysis. The research instrument used for the data collection was structured questionnaire. To ensure the validity and reliability of the instrument, experts were consulted and a pilot study done and the Chronbach alpha coefficient tested respectively. The Chronbach alpha coefficients were used to determine if the content of the instrument were reliable enough to give consistent results. A Chronbach alpha coefficient of 0.7 and above indicates that the instrument is reliable enough for use (Criswell, 2014). Table 2 below presents the Chronbach alphas coefficient results of the instrument’s contents.

Table 2. Reliability Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach Alpha Index</th>
<th>Number of Items</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional Benchmarking</td>
<td>0.783</td>
<td>4</td>
<td>Reliable</td>
</tr>
<tr>
<td>Service Delivery</td>
<td>0.836</td>
<td>6</td>
<td>Reliable</td>
</tr>
<tr>
<td>Aggregate Score</td>
<td><strong>0.814</strong></td>
<td><strong>10</strong></td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Source: Pilot Data (2020)

Findings in Table 2 show Cronbach alpha values for functional benchmarking and service delivery which were of (α= 0.783) and (α=0.836) respectively. The aggregate score of Cronbach alpha index for the 10 items related to the two variables was (α=0.814). From the table, alpha index for both the independent and dependent research variables of the study surpassed the 0.7 coefficient requirement provided by Gibson (2014) thus, they were reliable to be used in the study. Gibson (2014).

Collected data was then filtered out and edited to make it relevant. The edited data was then put in codes to ease the process of analysis. Statistical Package for Social Sciences (SPSS) version 25 software was then used to conduct both descriptive and inferential analysis. Results from the analysis were thereafter presented in forms of figures and tables. The inferential analysis sought to examine the effect of predictor variable, on the dependent variable as shown below.

\[
Y = \beta_0 + \beta_1 X_1 + \varepsilon \]

\[
\text{Model 1}
\]

Where;

\(Y\) = Service Delivery

\(X_1\) = Functional Benchmarking

\(\beta_0, \beta_1\) = Beta coefficients

\(\varepsilon\) = Error term

Simple linear regression analysis was conducted to establish the relationship between functional benchmarking and service delivery of multinational pharmaceutical firms, Nairobi City County, Kenya. Analysis of Variance (ANOVA) was used to test the statistical significance of the model by
indicating the probability of the occurrence of $R^2$. The F-statistic in the ANOVA table was used to measure the fitness of the estimated regression model at 95% level of confidence where a p-value of at most 0.05 was used as the threshold for making the inference. A p-value of less than 0.05 was considered as the onset for establishing if the corresponding beta coefficient was statistically significant at a 95% level of confidence.

4. RESEARCH FINDINGS AND DISCUSSION

104 out of the 128 questionnaires that were administered to the respondents in the multinational pharmaceutical firms were duly answered and returned. This gave an 81% response rate, which was sufficient enough to support analysis to be conducted. Orodho (2014), considers a response rate of above 70% to be sufficient enough to draw conclusions from.

4.1. Descriptive Statistics

The descriptive statistics helped in explaining the distribution pattern of the data as well as giving an indication of the level to which respondents agreed with the statements on functional benchmarking and service delivery. The likert scale had a rating of 1-5.

Table 1. Descriptive Statistics for Functional Benchmarking

<table>
<thead>
<tr>
<th>Content</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional benchmarking enables measurement of service delivery</td>
<td>1.57</td>
<td>0.33</td>
<td>12</td>
</tr>
<tr>
<td>Comparing results from other firms influence service delivery</td>
<td>1.36</td>
<td>0.56</td>
<td>16</td>
</tr>
<tr>
<td>Comparing sales with other firms brings an urge to improve service delivery</td>
<td>1.91</td>
<td>0.76</td>
<td>18</td>
</tr>
<tr>
<td>Benchmarking bring motivation which enhances improved service delivery</td>
<td>1.42</td>
<td>0.32</td>
<td>13</td>
</tr>
<tr>
<td><strong>Aggregate scores</strong></td>
<td>1.57</td>
<td>0.50</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: Survey Data (2020)

The descriptive statistics for functional benchmarking indicate an aggregate mean of 1.57, standard deviation of 0.50 and coefficient variation of 15%, approximating to agree on the Likert scale. The mean scores for the statements on the variable ranged from 1.42 on a lower scale and 1.91 on the higher side. The standard deviation ranged within 0.32 and 0.76. On the other hand, the coefficient of variation range was between 12% and 18%. This low range of variation indicate that there was minimum variation of responses, relative to the mean and can therefore be relied upon. Therefore, it can be stated that pharmaceutical firms in Nairobi City County, practiced functional benchmarking.

Table 2. Descriptive Statistics for Service Delivery

<table>
<thead>
<tr>
<th>Content</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of access to drugs by the consumers influence service delivery</td>
<td>1.67</td>
<td>0.12</td>
<td>16</td>
</tr>
<tr>
<td>Efficiency of performance is measured based on modes of service delivery</td>
<td>1.33</td>
<td>0.54</td>
<td>14</td>
</tr>
<tr>
<td>Follow-up surveys better indicates the nature of service provided</td>
<td>1.35</td>
<td>0.62</td>
<td>18</td>
</tr>
<tr>
<td>Customer satisfaction reflects on the service delivery offered by the firm</td>
<td>1.38</td>
<td>0.47</td>
<td>22</td>
</tr>
<tr>
<td><strong>Aggregate Scores</strong></td>
<td>1.46</td>
<td>0.41</td>
<td>19</td>
</tr>
</tbody>
</table>

Source: Survey Data (2020)

Table 2 above displays the descriptive statistics on service delivery of the pharmaceutical firms. The findings revealed an aggregate mean of 1.46, standard deviation of 0.41 and coefficient variation of 19%, approximating to agree on the Likert scale. The mean scores for the statements on the variable ranged from 1.33 on a lower scale and 1.67 on the higher side. The standard deviation ranged within 0.12 and 0.62. On the other hand, the coefficient of variation range was between 14% and 22%. This low range of variation indicate that there was minimum variation of responses, relative to the mean and can therefore be relied upon. These findings can therefore be confidently used to give a representation of the actual state of service delivery of the pharmaceutical firms in Nairobi city county, Kenya.
4.2. Inferential Statistics

The analysis of the linear regression was done with three independent variables and a single dependent variable. The predictor variable was functional benchmarking, while the dependent variable was service delivery. Simple linear regression analysis was carried out and the output of the analysis are as shown below.

Table 3. Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.567</td>
<td>.320</td>
<td>.299</td>
<td>.61728</td>
</tr>
</tbody>
</table>

Source: Survey Data (2020)

The empirical model for functional benchmarking and service delivery was found to be statistically significant. The results of the model summary showed that functional benchmarking 32.1% of variation in service delivery in the observed pharmaceutical companies. Consequently, the other factors not accounted for in this study explains the remaining 67.9% variation in the service delivery.

Table 4. ANOVA Analysis

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>15.511</td>
<td>8</td>
<td>5.470</td>
<td>14.368</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>34.776</td>
<td>60</td>
<td>.380</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>50.287</td>
<td>68</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Service Delivery
b. Predictors: (Constant), Functional Benchmarking

Source: Survey Data (2020)

The overall significance of the model was 0.000 which is less than 0.05, this therefore indicated that functional benchmarking is statistically significant.

Table 5. Coefficients

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Un-standardized coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.313</td>
<td>.445</td>
<td>2.947</td>
<td>.004</td>
</tr>
<tr>
<td>Functional Benchmarking</td>
<td>.441</td>
<td>.162</td>
<td>.364</td>
<td>2.731</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Service Delivery
b. Independent variable: Functional Benchmarking

Source: Survey Data (2020)

The results from table 5 above provide beta results for establishing the statistical model provided below:

**Service Delivery = 1.313 + 0.441 Functional Benchmarking**

The model shows that when functional benchmarking is held constant, then the service delivery of the pharmaceutical firms in Nairobi City County stood at 1.313. Additionally, with $\beta_1 = 0.441$, $t = 2.731$, $p = 0.008$ and $\alpha = 0.05$. The $\beta_1$, which was positive shows functional benchmarking having a positive and direct influence on service delivery of pharmaceutical firms in Nairobi City County. Hence, an addition by one unit of functional benchmarking increases service delivery by 0.441 units in the same direction.

These findings are in agreement with those by (Omollo, 2016) which showed that benchmarking practices such as functional benchmarking were positively correlated to the manner of service delivery. The findings were found to correspond with the goal orientation theory which suggest that firms only gain competitive advantage when employees are motivated. Functional benchmarking therefore improves the service delivery of firms by guiding the firms on attaining their short-term and long-term goals which result in better service delivery.
5. CONCLUSION AND RECOMMENDATION

The focus of the survey was to examine the effect of functional benchmarking strategy on service delivery in multinational pharmaceutical companies in Nairobi City County, Kenya. The independent variable for the study was functional benchmarking while Service delivery was the dependent variable. With reference to the study findings, it was noted that functional benchmarking had strong positive statistically significant effect on service delivery of the multinational companies in Nairobi City County, Kenya.

It was therefore established that functional benchmarking (raising firm standards, organization force on success), has a significant effect on Nairobi City county service delivery. It was recommended that management should develop relevant policy to help in entrenching practices that promote functional benchmarking. This kind of policy would strongly facilitate enhancement of service delivery amongst the observed multinational pharmaceutical companies operating in Nairobi City County in Kenya.

5.1. Areas for Further Research

The study analysis, findings and inferences were limited to functional benchmarking and service delivery of multinational pharmaceutical companies in Nairobi City County. Future researchers and scholars should however try and carry out research assessing how functional benchmarking affect service delivery in other industries as well as sectors.

REFERENCES


[12] Lakdawalla, D. N. (2018). Economics of the pharmaceutical industry. Journal of Economic Literature, 56(2), 397-449.


Analysis of the Role of Functional Benchmarking on Service Delivery in Multinational Pharmaceutical Companies in Nairobi City County, Kenya.


AUTHORS’ BIOGRAPHY

Betty Mukiri Murerwa, is a logistics assistant in a pharmaceutical organization. She holds a Degree in Bachelor of Commerce in Purchasing and Business Logistics from Daystar University, Kenya. Currently pursuing a Degree in Master of Business Administration in Strategic Management from Kenyatta University, Kenya. Her key areas of interest in research is global supply chain management. She has experience in procurement and logistics operations within the healthcare industry in which has become well versed in the procurement and logistics processes. This includes practical experience in management of inventory and sourcing of Promotional and trade materials globally for the Pharmaceutical industry.

Dr. Godfrey M. Kinyua, is a Lecturer in the Department of Business Administration, School of Business of Kenyatta University. He holds a Doctor of Philosophy in Business Administration from Kenyatta University, Master of Business Administration from the University of Nairobi and Bachelor of Education from Egerton University. His key areas of interest in research includes knowledge management, competitive intelligence and green innovation.

Citation: Betty Mukiri Murerwa, Godfrey Muigai Kinyua, “Analysis of the Role of Functional Benchmarking on Service Delivery in Multinational Pharmaceutical Companies in Nairobi City County, Kenya.” International Journal of Managerial Studies and Research (IJMSR), vol 9, no. 4, 2021, pp. 88-95. doi: https://doi.org/10.20431/2349-0349.0904008.

Copyright: © 2021 Authors. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.